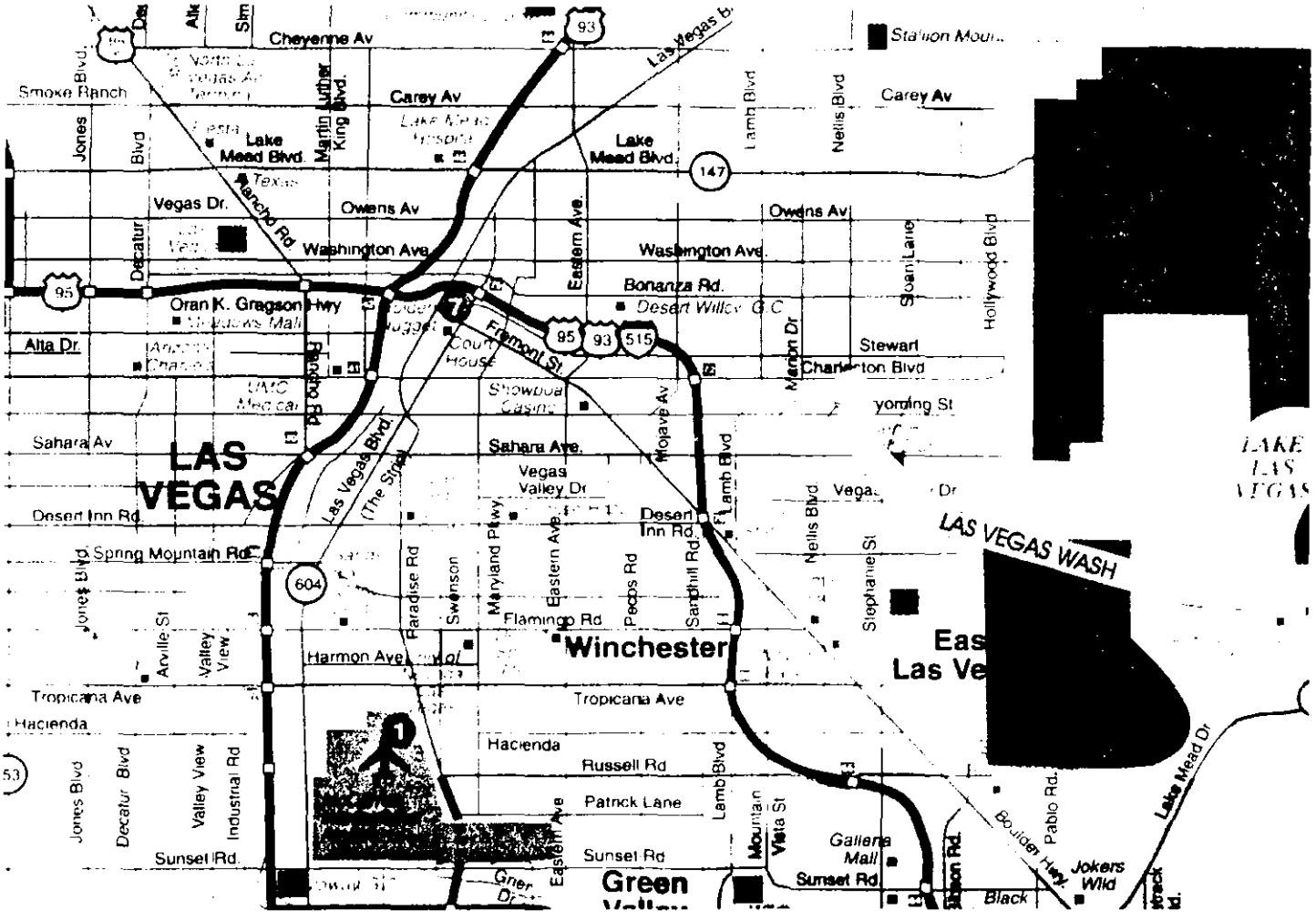
TECHNICAL SUPPORT DATA NOTEBOOK

LAS VEGAS WASH
FLOOD INSURANCE STUDY
CLARK COUNTY, NEVADA
JANUARY 15, 1999 - VOLUME 1



FEMA

NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors

FEDERAL EMERGENCY MANAGEMENT AGENCY

TECHNICAL SUPPORT DATA NOTEBOOK
Volume 1

FOR

CLARK COUNTY, NEVADA

FLOOD INSURANCE STUDY

SUBMITTED BY: NOLTE AND ASSOCIATES

DATE SUBMITTED: January 15, 1999

MICHAEL BAKER JR., INC.
RECEIVED
1999

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- Draft FIS Report Text

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SECTION 1
General
Documentation

1E3 CID32003 001

CERTIFICATION

FLOOD INSURANCE STUDY

For

Clark County, Nevada

Las Vegas Wash

(COMMUNITY NAME, STATE, & CREEK NAME)

THIS IS TO CERTIFY THAT ALL WORK ACCOMPLISHED IN THE CONDUCT OF THIS FLOOD INSURANCE STUDY WAS DONE IN ACCORDANCE WITH SOUND AND ACCEPTED ENGINEERING PRACTICE WITHIN THE CONTRACT PROVISIONS FOR RESPECTIVE PHASES OF THE WORK.

SUBMITTED BY: Jon Walters

Jon Walters

DATE SUBMITTED: 1-15-99

Special Problem
Reports

(Telephone
Conversation)

CONTACT (TELEPHONE CONVERSATION) REPORTS INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

CONTACT REPORT DATE	CONTACT PERSON	AGENCY	ID NO.
N/A	N/A	N/A	N/A

Meeting
Minutes/Reports

MEETING REPORTS INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

MEETING DATE	FIRM/AGENCY/LOCATION	MEETING TYPE	ID NO.
Dec. 17, 1998	Nolte & Associates, San Diego CA	Status	1C Pg. 2-3
July 7, 1998	Nolte & Associates, San Diego CA	Status	1C Pg. 2-3
March 11, 1998	Nolte & Associates, San Diego CA	Status	1C Pg. 4-6
January 8, 1998	Nolte & Associates, San Diego CA	Status	1C Pg. 7-9
August 6, 1997	Nevada Department of Transportation	Data Collection	1C Pg. 10-11
July 23, 1997	Nolte & Associates, San Diego CA	Status	1C Pg. 12-14
April 16, 1997	Nolte & Associates, San Diego CA	Status	1C Pg. 15-17
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NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Nolte & Associates, San Diego, CA DATE: December 17, 1998

NATURE OF MEETING: Status of Washoe and Clark County FEMA studies.

NAME	ORGANIZATION	PHONE
Les Sakumoto	FEMA	415-923-7183
Jon Walters	Nolte & Associates	619-385-0500
Scott Lyle	Nolte & Associates	619-385-0500
Jeff Daniel	Nolte & Associates	619-385-0500

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY	DATE:
Clark County, Nevada	December 17, 1998

CONTACT REPORT BY

NAME OF PERSON REPORTING	NAME OF OFFICE
Jeff Daniel, Nolte & Associates	*San Diego*

METHOD OF CONTACT

___ Correspondence ___Telephone ___Visit _X_Meeting

OTHER INDIVIDUALS INVOLVED

NAME/TITLE

Les Sakumoto, FEMA Jon Walters, Nolte
Scott Lyle, Nolte *Jeff Daniel, Nolte*

SUBJECT

1. Las Vegas Wash
   - Duck Creek
     - Create plots of Las Vegas Wash and Duck Ck mapping separate from the combined mapping to be presented on the final sheet. Provide explanation describing how combined mapping was developed.
     - Need to verify topo match (Nimbis topo) at Rebel Rd.
   - Range Wash
     - Overlay our mapping on G.C. Wallace LOMR. Provide explanation for the 9' WSEL discrepancy (due to the LOMR using a combined discharge of 15,000cfs).
   - Flamingo Wash
     - Our tie in location is at the second cross section (XS20) due to the starting water surface elevation (1705') of the Flamingo Wash model. Model should be started with Las Vegas Wash model elevation at cross section 426 of 1710.14'.
   - Provide text explaining all tie-ins. *Place within profile concurrence section.*
   - Upstream Study
     - Call Pernille and let her know we are close to submitting and that Les recommended using our model to start upstream study.
   - Mapping
     - Put community boundaries on sheets.
     - Create a Title Sheet that includes map key with community boundaries.
     - Provide a layering description text file.
     - Complete FEMA-37 digital submittal checklist including mapping projection and layering option (Option 2) used.
     - Call Jim Norby @ Baker Engers (703-317-3078) and verify CAD file submittal requirements
       - Suggest inserting all xrefs in sheets C1-C4 and provide raw topo files in a separate directory.
   - TSDN & CD submittal
     - Provide two cd's
       - CD1 with PDF's only no CAD files
       - CD2 with PDF's and CAD files
     - Send Les both CD's, profiles and sheets

- For all future FEMA contracts, we must include structures in all new aerial topographic *mapping prepared for project.*
- Send Les an email informing him of Clark County submittal to TEC.

NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Nolte & Associates, San Diego, CA DATE: July 7, 1998

NATURE OF MEETING: Status of Washoe and Clark County FEMA studies.

NAME	ORGANIZATION	PHONE
Les Sakumoto	FEMA	415-923-7183
Jon Walters	Nolte & Associates	619-385-0500
Scott Lyle	Nolte & Associates	619-385-0500
Jeff Daniel	Nolte & Associates	619-385-0500

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY	DATE:
Washoe and Clark Counties, Nevada	July 7, 1998

CONTACT REPORT BY

NAME OF PERSON REPORTING	NAME OF OFFICE
Jeff Daniel, Nolte & Associates	*San Diego*

METHOD OF CONTACT

__ Correspondence __Telephone __Visit _X_Meeting

OTHER INDIVIDUALS INVOLVED

NAME/TITLE

Les Sakumoto, FEMA Jon Walters, Nolte
Scott Lyle, Nolte Jeff Daniel, Nolte

SUBJECT

1. Las Vegas Wash
   - Revised topo was reviewed and accepted.
   - 500-year floodplain mapping information to be supplemented with USGS topo (1"=2000'), if necessary
   - Large fill area upstream of Vegas Valley Dr. should be included in analysis. Nolte to check with County (Robert Thompson) or other local agencies to obtain plans.
   - 100-year water surface at upstream face of Charleston Blvd. should match within 0.5 feet of the in-channel flow from upstream analysis by Ensign & Buckley. Any breach upstream of Charleston is to be ignored unless flow returns to the channel (check with Pernille at Baker Engineers).
   - Les requested that we call Pernille and coordinate Duck Creek mapping with Las Vegas Wash mapping.
   - Keep Las Vegas Wash as HEC-2 model. Do not use HEC-RAS for analyses.

2. Reno
   - ERM documentation to be added to maps. Create ERM tables for the TSDN's.
   - Map format for presentations for community meetings should be in color like the example provided by Les. Do not show cross section locations. Our title block is acceptable.
   - Profile sheets should contain all cross section labels if not too crowded. At a minimum, show cross section labels at major inflection points.
   - Submittals should include the following
     - separate CD for SV, GV and HV. Leave cd-writing session open. At a minimum, CD should include mapping files, HEC-2/HEC-RAS files, and FIS text.
     - Les will provide us with the cd directory structure by 7-10 (prepared by D & D).
     - Submit CAD files in DWG and DXF format (for Les only). Les doesn't need a copy of TSDN (only for TEC).
   - Provide Les with a building count for all areas (Does not need to be in TSDN).
   - Add 100-year discharge labels with arrows to all mapping.
   - 10-year and 50-year hydraulic runs are not required.
   - Add "End of Detailed Study" to where it applies.
   - Label road crossings on all profiles.

FEDERAL EMERGENCY MANAGEMENT AGENCY
FERERAL INSURANCE & HAZARD MITIGATION
NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Nolte & Associates, San Diego, CA DATE: March 11, 1998

NATURE OF MEETING: Status of Washoe and Clark County FEMA studies.

NAME	ORGANIZATION	PHONE
Les Sakumoto	FEMA	415-923-7183
Jon Walters	Nolte & Associates	619-385-0500
Scott Lyle	Nolte & Associates	619-385-0500
Jeff Daniel	Nolte & Associates	619-385-0500

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY	DATE:
Washoe and Clark Counties, Nevada	March 11, 1998

CONTACT REPORT BY

NAME OF PERSON REPORTING	NAME OF OFFICE
Scott Lyle, Nolte & Associates	San Diego

METHOD OF CONTACT

___ Correspondence ___Telephone ___Visit _X_Meeting

OTHER INDIVIDUALS INVOLVED

NAME/TITLE

Les Sakumoto, FEMA Jon Walters, Nolte
Scott Lyle, Nolte Jeff Daniel, Nolte

SUBJECT

1. Las Vegas Wash
   - Currently a GPS "bust" on Las Vegas Wash topo. It was agreed that a total station check to a bench mark is the only way to know for sure what "bust" is. Nolte will do topo check, advise Les of results, and resolve before remapping.
   - Lake Las Vegas design change has been incorporated into hydraulic analyses. We have received approval of hydrology from Kevin Eubanks, Clark County FCD.
   - Prepare hydraulic runs for 10-, 50-, 100-, and 500-yr discharges (consistent with previous upstream study). Show mapping of 100-yr, 500-yr, and floodway.
     - Quad sheets can be used to supplement digital topo for analysis and mapping the 500-year event.
   - Assume flow is in channel at Charleston Blvd (no spills). E&B study is on hold so assume match at Charleston Blvd. Check BFEs at Charleston Blvd.
   - Digital files to be submitted in CD-R format (1 copy to Baker, 1 copy to Les)
     - CADD files submit DXF and DWG
     - HEC-2 files
   - Hard copy plots to be submitted on Vellum bond (No Mylars needed at this time). Send one set of bluelines to Les upon submittal.
   - Les will provide a copy of "FIS plot" and "Check2" programs
   - Report is to be an addendum to Clark and Washoe County FIS (see back of Clark County FIS for an example). Include discussion on contiguous map check (how do we tie-in to washes).
   - Nolte needs to obtain a copy of the Range Wash mapping and implement.
   - Duck Creek to be modeled as follows (Scott to pass this information on to Pernille Buch-Anderson @ Baker Engineers):
     - A model containing sections from Lake Las Vegas to Duck Creek containing Las Vegas Wash as a tributary inflow (100-year discharge of 11,500 cfs).
     - A second model starting with the water surface elevation of the first model at the confluence with Duck Creek and extending to Charleston Blvd. (100-year discharge immediately upstream of Duck Creek Wash is 7,100 cfs).
   - Project Las Vegas Wash water surface elevations into Flamingo and Range Washes on floodplain mapping.
   - Revisions to current plot sheets
     - Provide index on each sheet
     - Note NGVD 29 datum used and include '88 datum
     - Turn on tic marks for coordinates - put note on sheet specifying Nevada state coordinates and projection.
     - Note date and source of topographic mapping.
     - Use method 2 in FEMA 37 Guidelines for layering convention.

- Turn off stream layers in areas outside of floodplain.
- Add elevation reference marks (ERMs) on each sheet.
- Don't show alpha sections on mapping. Baker will determine where these sections will go.
- Show Henderson City limits.

- Projected submittal date (end of March) will be met providing topo issue does not delay.
- Have a continuous plot prepared for community meetings.

2. General
   - Bill Lace @ Baker Engineers and Mike Grimm @ FEMA are contacts for submittal and mapping requirements.
   - For TSDNs:
     a. Include survey topo check data.
     b. Include one set of aerial photographs.
     c. Certification forms.
     d. Cross sections with water surface elevations (no extended sections).
   - Run floodway for Golden Valley but don't map.

FEDERAL EMERGENCY MANAGEMENT AGENCY
FERERAL INSURANCE & HAZARD MITIGATION
NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: *Nolte & Associates, San Diego, CA* *DATE: January 8, 1998*

NATURE OF MEETING: Status of Washoe and Clark County FEMA studies.

NAME	ORGANIZATION	PHONE
Les Sakumoto	FEMA	415-923-7183
Jon Walters	Nolte & Associates	619-385-0500
Scott Lyle	Nolte & Associates	619-385-0500
Jeff Daniel	Nolte & Associates	619-385-0500

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY	DATE:
Washoe and Clark Counties, Nevada	January 8, 1998

CONTACT REPORT BY

NAME OF PERSON REPORTING	NAME OF OFFICE
Scott Lyle, Nolte & Associates	San Diego

METHOD OF CONTACT

__ Correspondence __Telephone __Visit _X_Meeting

OTHER INDIVIDUALS INVOLVED

NAME/TITLE
Les Sakumoto, FEMA Jon Walters, Nolte
Scott Lyle, Nolte
Jeff Daniel, Nolte

SUBJECT

1. Virginia Foothills (Steamboat Springs)
   - Hydrology still being reviewed by TEC.
   - Put on hold - don't have cross section data prepared yet (may not need depending on results of Northwest Hydraulics Study).

2. Verify GPS closure to known point in Las Vegas Wash area.
   - There are problems with GPS in steep terrain areas.
   - Ron Parker will check closure. **(done)**
   - Les : Finding that you can't just accept GPS without closure to hard point. Need to supplement with field survey. **(done)**

3. Sun Valley
   - Nolte's USGS flood frequency results are higher than SEA HEC-1 study. This is typical of northern Reno area.
   - Check one standard error (deviation) on discharges against SEA results.
   - Use similar confluence limits as SEA study when reducing discharges in reach. Proration of discharge by drainage area okay to use for these analyses.
   - Prepare hydraulic runs and mapping for 100-yr, 500-yr, and floodway. Optimize 1-foot in floodway run with equal conveyance reduction.
   - Summarize hydrology for 10-, 50-, 100-, and 500-year discharges.

4. Prepare work maps for meetings and TEC submittal at 1"=200' (1"=400' also okay). Splice sheets together and color for community meetings.

5. All files (hydrology, hydraulics, USGS regional flood frequency program, text files, AutoCAD files, etc.) should be burned onto CD for TEC submittal. Follow TSDN order/content and document thoroughly. Include .DXF file copies of all .DWG files.

6. Golden Valley
   - Prepare hydraulic runs and mapping for 100-yr, 500-yr, and floodway. Optimize 1-foot in floodway run with equal conveyance reduction.
   - Summarize hydrology for 10-, 50-, 100-, and 500-year discharges.
   - Show mapping of road overtopping at downstream study limits.
   - Add section at downstream limit to determine starting water surface elevation and to show flow down highway, if any.

7. Hidden Valley
   - Summarize hydrology for 10-, 50-, 100-, and 500-year discharges.
   - Only map 100-year floodplain.
   - Document that 100-year volume is much greater than detention basin size (include sediment inflow).
   - Document drainage areas for alluvial fan, detention basin and overall.
   - Show Zone X mapping from golf course club house (downstream limit of Zone AE) to Steamboat Springs. Perform analyses to check depth of Zone X.
   - Les will send copy of exhibit from Ed Miflin's review.

8. Las Vegas Wash
   - Les will have Baker Engineers send Duck Creek mapping.
   - Prepare hydraulic runs for 10-, 50-, 100-, and 500-yr discharges (consistent with previous upstream study). Show mapping of 100-yr, 500-yr, and floodway.
   - Assume flow is in channel at Charleston Blvd (no spills). E&B study is on hold so assume match at Charleston Blvd.

9. Ship submittal to TEC before community meetings. Want TEC to review before showing community results.

FEDERAL EMERGENCY MANAGEMENT AGENCY
FERERAL INSURANCE & HAZARD MITIGATION
NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Nevada Department of Transportation (NDOT)
Clark County Department of Public Works (DPW)

DATE: August 6, 1997

NATURE OF MEETING: Performed research at NDOT and DPW to obtain as-builts for Charleston Blvd, Nellis Blvd, Sahara Ave and Vegas Valley Road crossings of Las Vegas Wash.

NAME	ORGANIZATION	PHONE
Scott Lyle	Nolte & Associates, San Diego	619-385-0500

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY	DATE:
Clark County, Nevada	August 6, 1997

CONTACT REPORT BY

NAME OF PERSON REPORTING	NAME OF OFFICE
Scott R. Lyle, Nolte & Associates	San Diego

METHOD OF CONTACT

___ Correspondence ___Telephone _X_ Visit

OTHER INDIVIDUALS INVOLVED

NAME/TITLE
Nevada Department of Transportation (NDOT)
Clark County Department of Public Works (DPW)

SUBJECT
Performed research at NDOT and DPW to obtain as-builts for Charleston Blvd, Nellis Blvd, Sahara Ave and Vegas Valley Road crossings of Las Vegas Wash.

1. NDOT only had curb-to-curb drawings of Charleston and Nellis Blvds. These drawings did not provide any information on bridge crossings.
2. DPW (Public Works Map Room) database showed as-built information (drawings) for Charleston and Nellis Blvds, and Vegas Valley Road. Sahara Ave. has not been as-built because project still under construction (although bridge has been built for some time).
3. Purchased as-builts of Charleston and Nellis Blvds.
4. Vegas Valley Rd as-builts were missing from files. Roger at DPW (Engineering Design) will research whereabouts.
5. Call Ken Lambert at DPW (702/455/6050) to determine status of Sahara Avenue as-builts.
6. List of researched drawings:
   - L00844 Charleston & Nellis Blvds As-builts
   - L00749 Golf Cart Bridge
   - L00785 Golf Cart Bridge
   - L01317 Flamingo Wash at Desert Hills Golf Course
   - L00881 Vegas Valley Road at Las Vegas Wash

FEDERAL EMERGENCY MANAGEMENT AGENCY
FERERAL INSURANCE & HAZARD MITIGATION
NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Nolte & Associates, San Diego, CA DATE: July 23, 1997

NATURE OF MEETING: Status of Washoe and Clark County FEMA studies.

NAME	ORGANIZATION	PHONE
Les Sakumoto	FEMA	415-923-7183
Jon Walters	Nolte & Associates	619-385-0500
Scott Lyle	Nolte & Associates	619-385-0500
Dan Schaff	Nolte & Associates	619-385-0500

MEETING MINUTES

ATTENDEES:	**Les Sakumoto - FEMA** **Jon Walters - Nolte** **Dan Schaaf - Nolte** **Scott Lyle - Nolte**	**DATE:**	**July 23, 1997**
SUBJECT:	**WACCO MTG**	**PROJ #:**	**SD0338/SD0339**

1. Les said, "I can give you time but I can't give you money." He doesn't need a letter on the delays right now.
2. SCALES addendum has been approved. Tell Les who alternate would be for signing addendum (besides JHW) in Corp. office. JHW will send Les an e-mail of alternatives in the corp. office.
3. Told Les that Cooper is slow and not meeting FEMA specs. Nolte has a meeting with them on 8/6.
4. Les told us that they are able to get vertical accuracy with GIS backpacks.
5. Stan Grzeda is now GIS mapping contact at Baker, replacing Denny Watkins.
6. Les to get Will Thomas approval of Hydrology Report before distribution. Expect a 90 day review period.
7. Hydrology Report distribution list:
   - County of Washoe - Leonard Crowe
   - USGS - Rhea Willians
   - No private firms or State people
   - ACOE - Tom Christianson
8. Send Clark County letter (flows approved by Kevin Eubanks) to:
   - Will Thomas (Baker)
   - Pernille Whitaker (Baker)
9. Look at Sun Valley Detention Basins
   - Will dam be overtopped w/ 24-hr storm? What are the differences between our 100-year peak and the .6-hr 100-year event by SEA? What is the peak with the 24-hr 100-year storm?
   - How do upstream detention basins in upper basin affect hydrology? There may be a need to do HEC-1 and routing for this basin. This would be done under an SPR. Wait until Will Thomas reviews the report.
   - If u/s basins greater than 10 year, get S-D-E information from Leonard.
   - If d/s basin doesn't hold the 100 year volume we may need to map down to Sparks. This would be done under an SPR.
10. Hidden Valley
    - What happens when major alluvial fan reaches levee along residential development? How deep will the flow be, will there be any ponding against "levees"?
    - For leveed reach, if no overtopping, must assume entire flow reaches detention basins.
    - Start levee breach at first point where levee doesn't meet freeboard requirement.
    - Key for Les is how we "fix up old floodplains" through houses (map with normal depth rating curve section).
    - Five modes of flooding:
      - Main fan
      - 2nd fan
      - levee failure
      - detention pond spill
      - main fan south of levee at east side of houses
    - Alluvial fan study
      - Include entire topo large plots, old quad, stereo photos
      - Include mapping & analysis through residential development
11. Virginia Foothills
    - hold until NW Hydraulics flows at approved. No Cooper mapping unless absolutely necessary.
12. Las Vegas Wash
    - When finishing field completion, have surveyors check vertical data from Cooper digitized sections.

- Run rough analysis through residential section. Leave Les e-mail w/ results.
- Call Pernille regarding E&B study results (Les to send Pernille a note).
  - HEC-2 runs and mapping
  - Get last portion of HEC-2 deck (Charleston to Washington) to check topo.
  - Check match into Nimbus Engineering Duck Creek Study. Les to get us a copy.

ACTION ITEMS

Dan

1. *Check Sun Valley damn hydrology.*
2. Check Sun Valley u/s detention basins
3. Finish alluvial fan report
   - Map fans though residential area
   - Check levees at residential/park boundary
   - Map flow past detention basin
   - Include entire topo with report (large size)

Scott

1. Send copy of Kevin Eubank's letter, with flow rates, to Will Thomas and Pernille Whitaker.
2. Run analysis through residential section. E-mail Les results.
3. Call Pernille regarding E&B study

John

1. Send Les a list of alternatives to sign addendum for SCALES.

Ron

1. Check vertical data from Cooper digitized sections.

FEDERAL EMERGENCY MANAGEMENT AGENCY
FERERAL INSURANCE & HAZARD MITIGATION
NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Nolte & Associates, San Diego, CA DATE: April 16, 1997

NATURE OF MEETING: Status of Washoe and Clark County FEMA studies.

NAME	ORGANIZATION	PHONE
Les Sakumoto	FEMA	415-923-7183
Jon Walters	Nolte & Associates	619-385-0500
Scott Lyle	Nolte & Associates	619-385-0500
Dan Schaff	Nolte & Associates	619-385-0500
Ron Parker	Nolte & Associates	619-385-0500

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY	DATE:
Washoe and Clark Counties, Nevada	April 16, 1997

CONTACT REPORT BY

NAME OF PERSON REPORTING	NAME OF OFFICE
Scott Lyle, Nolte & Associates	San Diego

METHOD OF CONTACT

__ Correspondence __Telephone __X__ Visit

OTHER INDIVIDUALS INVOLVED

NAME/TITLE

Les Sakumoto, FEMA
Jon Walters, Nolte
Scott Lyle, Nolte
Ron Parker, Nolte
Dan Schaaf, Nolte

SUBJECT

1. Nolte will use a constant adjustment of -2.35 feet to convert from NAVD 88 to NGVD 29 datum for the Las Vegas Wash topo.
2. Washoe County ERMs:
   - Use new curbs, fire plugs, existing monuments
   - Place at even intervals (~0.5 mile spacing)
   - Place ERMs on objects that probably won't be moved or replaced in the future.

   Clark County ERMs:
   - Use existing ERMs where available (avoid areas of known subsidence).
   - Use spikes in power poles
   - Wastewater Treatment Plant
   - Boyd Stadium
   - Spacing can extend beyond 0.5 mile interval through downstream reach because of limited development in area.
3. Cross sections should be tied out digitally on mapping and for surveys.
4. FEMA guidelines do not spell out vertical/horizontal tolerances for ERMs.
5. Les would like to know relative accuracy of topographic mapping produced by Cooper Aerial. Nolte survey crews will return to Reno to set ERMs and check topo accuracy after we receive Virginia Foothills topo. Las Vegas topo check will be made during field cross-sectioning.
6. Our schedule has slipped by approximately six weeks due to the datum conversion and Cooper's production capabilities. We have requested the following order of work from Cooper Aerial:
   - Complete Las Vegas Wash topo
   - Prepare cross section data for Hidden Valley, Golden Valley and Sun Valley
   - Prepare cross section data for Las Vegas Wash
   - Complete Virginia Foothills topo and cross section data.
7. Northwest Hydraulics and E&B studies for Las Vegas Wash are not completed or approved. We will continue our hydraulic analyses for Las Vegas Wash and revise hydrology, if necessary, after confirmation of flows.
8. Les wants us to evaluate reservoir capacity and downstream discharges assuming a 24-hour storm for Sun Valley (Leonard Crowe of Washoe County sending us original backup). Original analyses for storage volume behind Wildcreek Dam was calculated using only a six-hour storm. Results of 24-hour analyses could impact downstream discharges and flood limits.
9. Dan will order Sparks FIRM maps to check floodplain mapping downstream of Wildcreek Dam.
10. Les agreed that summing two upper watersheds runoff quantities to determine downstream discharge is more realistic for hydrology of Golden Valley. The other alternative of calculating runoff of one large basin produced too low of a discharge per acre quantity. Dan will send Les a summary of hydrology

calculations for Golden Valley watershed, and summarize the rationale for adding the subbasin discharges.

11. Les will send us a copy of Will Thomas' recommendation letter addressing USGS regional flood frequency equations.
12. Nolte's hydrology study for Washoe County should be distributed only to affected agencies and communities. We should wait for approval of our hydrology study before finalizing our hydraulic analyses.
13. We can use HEC-RAS for study reaches not tying into other documented study reaches. FEMA wants HEC-2 used for study reaches tying into each other.
14. Les provided Nolte with a handout showing floodplain mapping for the City of Roseville. We should follow the shading and color format of this handout in preparing maps for community meetings.
15. Les gave approval to purchase CD-ROM burner.
16. Les wants both *.dwg and *.dxf files with read.me file on CD submittals. Also include HEC-2/HEC-RAS runs and any digital documentation on CDs.
17. Carefully review sediment transport (aggradation/degradation) and its affect on mapping for the Hidden Valley study.
18. Alluvial Fan submittals should include detailed documentation of what assumptions were made, why they were made, and the different ways the fan was analyzed.
19. Scott will follow-up with Washoe County on Sun Valley Hydrology Study and Masterplan Hydrology Study.

Nolte will research GIS/AutoCADD capability in determining number of structures within floodplain limits using current software packages.

FEDERAL EMERGENCY MANAGEMENT AGENCY
FERERAL INSURANCE & HAZARD MITIGATION
NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Clark County Department of Public Works (DPW) DATE: November 12, 1996

NATURE OF MEETING: Performed research at DPW

NAME	ORGANIZATION	PHONE
Kevin Eubanks	Clark County Flood Control District	702-455-3139
Scott Lyle	Nolte & Associates, San Diego	619-385-0500

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY	DATE: November 12, 1996
Clark County	

CONTACT REPORT BY

NAME OF PERSON REPORTING	NAME OF OFFICE
Scott Lyle, Nolte & Associates	San Diego

METHOD OF CONTACT

___ Correspondence ___Telephone _X_Meeting

OTHER INDIVIDUALS INVOLVED

NAME/TITLE

Kevin Eubanks, Clark County Flood Control District

SUBJECT

1. Charleston Blvd, Nellis Blvd and Sahara Ave. are all state roads. Obtain plans from NDOT, 123 Washington Ave. (east of Las Vegas Blvd).
2. Vegas Valley Road is a County road. Obtain plans from Clark County Maps & Records or Design Engineering (on Sandy Lane near Clark County FCD).
3. Contact Steve Mano at JMM (702) 878-8010 for as-builts of Lake Las Vegas drainage structures and Parks & Recreation topographic information.
4. Curt Chandler, City of Henderson (702) 565-2329 may also have plans of Lake Las Vegas.
5. Randy Fultz, City of Las Vegas (702) 229-2143 may also have plans of Charleston Blvd.
6. G.C. Wallace (Calvin Black), local civil engineering firm, recently completed a LOMR for Las Vegas Wash from Charleston Blvd to Flamingo Wash (for developers).
7. Contact NDEP for water quality data. Kevin recommends wearing waders if entering Las Vegas Wash - not suitable for direct human contact.
8. Contact Clark County Sanitation District, 5857 E. Flamingo Road, (702) 458-1180 for water quality data of WWTP effluent.
9. Use JMM report to determine Las Vegas Wash discharges. Kevin gave me a copy of JMM HEC-1 input (1988 HEC-1 version). Check model that we get from FEMA against JMM flows.
10. Intake structure at Lake Las Vegas (double 84-inch pipes) will convey 10-year storm.
11. Downstream earth fill dam on Lake Las Vegas has blow out plugs to handle extreme flooding conditions. Kimley-Horn & JMM are designing balloon dam to replace plugs.
12. GIZMO has recently flown (1996?) topography for entire valley (5-foot contour interval).

cc: Les Sakumoto, FEMA
Jon Walters, Nolte & Associates

FEDERAL EMERGENCY MANAGEMENT AGENCY
FERERAL INSURANCE & HAZARD MITIGATION
NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Nolte & Associates, San Diego, CA DATE: November 4, 1996

NATURE OF MEETING: Status of Washoe and Clark County FEMA studies.

NAME	ORGANIZATION	PHONE
Les Sakumoto	FEMA	415-923-7183
Will Thomas	Baker Engineers	703-960-8800
Jon Walters	Nolte & Associates	619-385-0500
Scott Lyle	Nolte & Associates	619-385-0500
Dan Schaaf	Nolte & Associates	619-385-0500
Paul Grosjean	Nolte & Associates	619-385-0500

MEETING MINUTES

ATTENDEES:	**Les Sakumoto - FEMA** **Will Thomas - Baker** **Jon Walters - Nolte** ***Dan Schaaf* - Nolte** **Scott Lyle - Nolte** **Paul Grosjean - Nolte**	**DATE:**	**November 4, 1996**
SUBJECT:	**WACCO MTG**	**PROJ #:**	**SD0338/SD0339**

1. Cad files to be submitted in .dwg and .dxf format.
2. Submit all files on CD-ROM.
3. Use 4 places on accuracy for polygons.
4. USGS Optional 3 .dlg format for Baker files
    - Overlay County files with FEMA/Baker files
        - Check community boundaries
        - Street boundaries
    - Use correct boundaries (either FEMA's or County's)
5. Baker files - Projected to UTM zones.
6. Different projections (UTM, state plane, etc.) are acceptable to Baker as long as they know which we are using.
7. Layering convention - Baker uses Option 2 (more compressed than Option 1).
    - Provide more layers (easier to combine than separate layers).
    - Encoding is a Baker process (not required of Nolte).
8. Use descriptive layers and Nolte tools
9. Denny Watkins to provide Nolte with Washoe and Clark DFIRMs on CD's (.dlg format).
    - DFIRMs in UTM
    - Denny to provide additional list of layer conventions for miscellaneous features such as buildings, etc.
10. We can use Nolte layering scheme for photogrammetrist.
    - Provide Baker with appropriate documentation.
11. Nolte will submit 10% files for Washoe and Clark.
    - Submitting separately is ok with Bakers schedule.
    - Baker will review within one week of receipt.
12. Nevada state plane coordinates are required by Les for submittal.
13. Send Paul Xerox copies of stream locations.
    - E-mail Paul Cooper Aerial name and address.
    - Send Paul glossary of terms.

FEDERAL EMERGENCY MANAGEMENT AGENCY
FERERAL INSURANCE & HAZARD MITIGATION
NATIONAL FLOOD INSURANCE PROGRAM

MEETING ATTENDANCE RECORD

LOCATION: Nolte & Associates, San Diego, CA DATE: November 2, 1995

NATURE OF MEETING: Clark County Time and Cost Meeting

NAME	ORGANIZATION	PHONE
Les Sakumoto	FEMA	415-923-7183
Curt Chandler	City of Henderson	702-656-2329
Steve Parrish	Clark County	702-455-4603
Kevin Eubanks	Clark County RFCD	702-455-3139
Jon Walters	Nolte & Associates	619-385-0500
Scott Lyle	Nolte & Associates	619-385-0500
Dan Schaaf	Nolte & Associates	619-385-0500

MEETING MINUTES

ATTENDEES:	**Les Sakumoto - FEMA** **Curt Chandler - City of Henderson** **Steve Parrish - Clark County** **Kevin Eubanks - Clark County RFCD** **Jon Walters - Nolte** **Dan Schaaf - Nolte** **Scott Lyle - Nolte**	**DATE:**	**November 2, 1995**
SUBJECT:	**Clark County Time and Cost Meeting**	**PROJ #:**	**SD0339**

1. Clark County FCD has copies of hydrology information.
2. Study limits are from Charleston Blvd to Lake Las Vegas (~11 miles).
3. For tributaries, just match backwater.
4. Multiple profiles (10-, 50-, 100-, and 500-year) and floodway required.
5. City of Henderson limits begin south of Boyd Stadium along Las Vegas Wash.
6. Topography at NGVD 29. County datum has been converted - be careful with datum! Contact Brett Lane, County Surveyor.
7. Phu Simpson is Clark County contact for mapping (same phone no. as Steve Parrish). Some topo produced for Las Vegas Wetlands Park project.
8. Digital mapping available through GIZMO (County agency). GIZMO has street centerline data and many other layers. Kevin Graczyk is GIZMO contact. Robert Garza is Clark County RFCD GIS contact.
9. Check with water district and sewer district (Jim Devlin) for available base mapping. Clark County, RFCD, and City of Henderson don't have any topographic mapping available.
10. Nolte will review Clark County FCD hydrology. Check to make sure that hydrology represents constructed detention facilities.
11. Coordinate with Ensign & Buckley re: upstream tie-in for Las Vegas Wash at Charleston Blvd.
12. Map BFE's up each tributary to match studies. Need to obtain topographic data (include in photogrammetric work) for each tributary stub.
13. Northwest Hydraulics will verify hydrology to freeway. Nolte will verify hydrology downstream of freeway.
14. 6-hour summer storms ~ 3.0 inches. Clark County FCD uses multiplication factors to determine different frequencies based on NOAA Atlas precipitation data.
15. John James is State Climatologist. NOAA's new precipitation amounts are low.
16. Range Wash (Sloan Channel) - include several hundred feet in study.
17. Las Vegas Wash flow travels under Lake Las Vegas through underground pipes. LOMR will be used to establish starting wsel at Lake Las Vegas (per Curt of City of Henderson).
18. Clark County FCD has June 1995 aerial photos. These will be digitally rectified in early 1996.
19. Digital ortho required for contract. Pick up culture and use FIRMs to estimate widths. Nevada tick marks should be shown on each work map.
20. C-1 Channel inflow needs to be considered - future A-E work.
21. Photogrammetry firms : Geonics (Northwest Hydraulics using, out of Sacramento), Cooper Aerial, Nevada Aerial & Mapping, Kenny
22. Survey firms : ESI
23. Don't need 2X enlargements. Make two sets of aerials. For proposal, mark-up USGS maps with study limits for Les and for FEMA contracts personnel.
24. Les on vacation from November 13 through December 2.

General
Correspondence

INCOMING GENERAL CORRESPONDENCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

CONTACT DATE	TO: FIRM/AGENCY	TYPE	ID NO.
10-20-98	FEMA, Les Sakumoto	Floodway Confluence at Duck	Pg. 2
10-05-98	FEMA, Les Sakumoto	500-year analysis	Pg. 3
01-20-98	FEMA, Les Sakumoto	Duck Creek & Las Vegas Wash at Charleston data	Pg. 4
01-11-98	FEMA, Les Sakumoto	Request for Duck Creek and Las Vegas Wash data	Pg. 5
08-25-97	FEMA, Les Sakumoto	Request to forward contact list to John Lesko @ Baker	Pg. 6

10-20-98; Phone Conversation between Jeff Daniel (Nolte) and Les Sakumoto (FEMA)
Les called and agreed that it makes sense to start the floodway model at the water surface elevation of the downstream floodway models encroached elevation which is not necessarily a one foot surcharge.

-----Original Message-----
From: MIME :lsaku@pop.mindspring.com [SMTP:MIME :lsaku@pop.mindspring.com]
Sent: Monday, October 19, 1998 4:58 PM
To: Daniel, Jeff G
Subject: Re: WACCO Question

Jeff:

I'll give you a call on this. I would prefer to stick with a solution that makes the most hydraulic sense, unless an argument can be made on why it would cause some problems in administering the floodway.

Let's discuss the if, ands, or buts.

Les

==========

At 03:17 PM 10/19/98 -0800, you wrote:
>Les,
>I am working on the floodway model from the confluence with Duck Creek to
>Charleston Blvd. and have a question about the starting conditions. FEMA 37
>page 5-4 says "normally" we should not use the calibrated 100-year backwater
>model to start the floodway run. If this is the case the 100-year
>un-encroached profile in the floodway model will not match the 100-year
water
>surface elevation for the first few cross sections.
>
>The following are the options to consider;
>
>1. Start the floodway model at normal depth and not consider the water
>surface elevation at the confluence. The encroached profile #2 would be
>started one foot above profile 1. As FEMA 37 suggests "the floodway
>elevations in the lower reach of a tributary subject to backwater flooding
may
>be lower than those used to plot the flood profiles".
>
>2. Start the floodway model at the same water surface elevation as the main
>model thereby accounting for backwater effects. The encroached profile #2
>would be started one foot above profile 1 which may not be equal to the
>optimized floodway water surface elevation of the main branch.
>
>Let me know how you want us to proceed.
>
>Thanks,
>Jeff Daniel
>
>
>

Daniel, Jeff G
From: MIME :lsaku@pop.mindspring.com
Sent: Monday, October 05, 1998 1:04 PM
To: Lyle, Scott R; Walters, Jon H; Daniel, Jeff G
Cc: PBuch-Pedersen@MBakerCorp.com
Subject: LV Wash 500 year
Scott:

Talked it over with Pernille, she concurrs with my suggestion that you run both the 100 and 500 but we will only show the 100 on the final maps and keep the 500 for another day.

That being said and done, the question is how to show the 500? I would say just do your best to show something reasonable at Charleston. Make your assumptions as to the most likely flow distribution, document it, and go for it. Perhaps the flow distribution from the E&B study upstream will indicate the best paths.

Les

P.S. Baker is putting together the info for Alamitos now.

Daniel, Jeff G
From: MIME :lsaku@pop.mindspring.com
Sent: Tuesday, January 20, 1998 4:17 PM
To: Walters, Jon H; Lyle, Scott R
Cc: Flamingo.transition@mindspring.com
Subject: Study data -Reply

>X-Mailer: Novell GroupWise 4.1
>Date: Tue, 20 Jan 1998 11:40:06 -0500
>From: Pernille Buch-Pedersen <pbuch-pedersen@mbakercorp.com>
>To: lsaku@mindspring.com
>Subject: Study data -Reply
>
>Les just to let you know, we have a restudy/revision of Flamingo Wash
>from Rainbow Boulevard to Las Vegas Wash. Clark County Flood
>Control District along with GC Wallace prepared the submittal. We will
>send the data and the HEC-2 model to Nolte Engineering along with the
>information from Duck Creek and Las Vegas Wash at Charleston
>Boulevard. The information will be send this week.
>
>*Pernille*
>

Daniel, Jeff G
From: lsaku@mindspring.com [MIME @INTERNET {lsaku@mindspring.com}]
Sent: Sunday, January 11, 1998 12:57 PM
To: PBUCH-PEDERSEN@MBAKERCORP.COM
Cc: Walters, Jon; Lyle, Scott
Subject: Data from Studies in review

Pernille:

In order for Nolte, our SC for lower Las Vegas Wash, to affect the transition for:

1. Duck Creek at Las Vegas Wash

2. and Las Vegas Wash at Charleston Street

they will need the study data that is in for review from the Nimbus and the Ensign & Buckley restudy and LMMP. Can you have someone send them the data and mapping for these areas.

Thanks..... Les Sakumoto

Daniel, Jeff G
From: lsaku@pop.mindspring.com [MIME @INTERNET {lsaku@pop.mindspring.com}]
Sent: Monday, August 25, 1997 11:12 AM
To: Jon Walters; Scott Lyle
Cc: jlesko@mbakercorp.com; WTHOMAS@mbakercorp.com
Subject: Cooper Contract

Jon:
If it's not a private matter, can you forward to John Lesko (Baker Engr in Beaver, PA.) a copy of the contract or more importantly the specs that you provided to Cooper. If there's a problem with this give me or John a call. John did give Jim Denny of Cooper a call on Thursday, August 21, 1997.

Thanks..... Les Sakumoto

OUTGOING GENERAL CORRESPONDENCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

CONTACT DATE	TO FIRM/AGENCY	TYPE	ID 1D1 CID32003 NO.
12-11-98	Baker, P. Buch-Pederson	Mapping Issue	002 Pg. 1
12-03-98	Nolte, Gary Rivas	Billing	002 Pg. 2
10-23-98	Baker, P. Buch-Pederson	Mapping Issue	002 Pg. 3
10-21-98	Baker, P. Buch-Pederson	Starting conditions for Las Vegas Wash	002 Pg. 4
09-29-98	Nolte	500-year analysis	002 Pg. 5
09-29-98	FEMA, L. Sakumoto	500-year analysis	002 Pg. 6
09-02-98	Clark Cnty DPW, R. Thompson	Grading info. for golf course near Vegas Valley Dr.	002 Pg. 7
08-20-98	Clark County, Kevin Eubanks	Update on status of study, request any new info.	002 Pg. 8
08-17-98	Nolte	Request for courtesy call	002 Pg. 9
07-16-98	Nolte	Golf course near Vegas Valley Dr.	002 Pg. 10
07-10-98	Nolte	Ensign & Buckley study, Duck Ck. mapping	002 Pg. 11
06-22-98	Cooper Aerial, Jim Denney	Cross section data request	002 Pg. 12
02-02-98	Nolte	Mapping information for Duck, Flamingo, LV Wash	002 Pg. 13
01-21-98	Nolte	Digital text files for FIS	002 Pg. 14
12-08-98	Nolte	Cross section data accuracy	002 Pg. 15
08-15-97	Baker, Stan Grzeda	10% Submittal	002 Pg. 16
08-13-97	Clark Cnty DPW, R. Mendenhall	Sahara Ave. Improvement Plans	002 Pg. 17
08-08-97	Nolte	Preliminary HEC-2 analysis at Charleston	002 Pg. 18
08-08-97	Baker, Will Thomas	Discharges for LV Wash	002 Pg. 19
07-16-97	Clark County, Ed Mighell	Lake Las Vegas information	002 Pg. 20
03-31-97	Cooper Aerial, C. Hendrickx	Datum correction request	002 Pg. 21

03-17-97	FEMA, Les Sakumoto	Las Vegas Wash information	002 Pg. 22
03-13-97	Nolte	Benchmark information	002 Pg. 23-24
03-05-97	Clark County	Datum conversion for FIS	002 Pg. 25-26
02-28-97	Nolte	Datum conversion	002 Pg. 27
02-12-97	Clark County, Kevin Eubanks	Request for discharge acceptance	002 Pg. 28
11-21-96	Nolte	Research update	002 Pg. 29
11-08-96	*Communities*	Announcement of Intent to Perform FIS	002 Pg. 30
11-08-96	Las Vegas Review Journal	Legal advertisement	002 Pg. 31
11-06-96	Clark County, Kevin Eubanks	Request for meeting to obtain documents	002 Pg. 32
06-10-96	Clark County, Robert Garza	GIS request for Las Vegas Wash	002 Pg. 33

Daniel, Jeff G
From: Daniel, Jeff G
Sent: Friday, December 11, 1998 10:34 AM
To: 'pbuch-pedersen@mbakercorp.com'
Subject: Las Vegas Wash

Pernille,
We spoke a few months ago about mapping the floodplain and floodway at the confluence of Las Vegas Wash and Duck Creek. You suggested mapping the higher of the two water surfaces while showing both lines for the tec review process. We are having a problem with this because the higher water surface bounces between the two models as you move to the confluence. Picking the higher as you move down would not result in a smooth line.

One option is to shade the worst case from both while showing the interior lines. If this is done we would need to resolve how to layout the BFE's.

Let me know what you suggest.

I attached a PDF file for you to review.

Jeff Daniel
Nolte & Associates
619-385-0500

Acrobat Document

Daniel, Jeff G
From: Lyle, Scott R
Sent: Thursday, December 03, 1998 3:58 PM
To: Rivas, Gary -
Cc: Gregoire, Susan S; Walters, Jon H
Subject: WACCO Billings

I just got off the phone with Les Sakumoto of FEMA (job numbers SD0338 and SD0339). Les is going to be in San Diego for a meeting on December 17 to discuss WACCO project. He recommended we have invoices mailed directly to Nolte San Diego office (instead of FEMA office) and then he could sign off on them right away. Les said he's going to be out in the field for awhile, so invoices would sit around for another month if sent to his office.

Can we make this happen?

Thanks!

Scott

TELEPHONE CONVERSATION RECORD

TO: **Jeff Daniel** **DATE:** **October 23, 1998**

FROM: **Pernille Buch Pederson** **PROJ #:** **SD0339**

SUBJECT: **Floodway starting conditions**

Pernille called after reviewing my fax detailing our starting conditions for Las Vegas Wash (LV) floodway at the confluence with Duck Creek.
Permille agreed that we should start the LV floodway profile at the optimized water surface elevation of the Duck Creek model. This makes the floodways come together at cross section 308 and makes the most hydraulic sense.

San Diego Office

FAX TRANSMITTAL

TO

Name: **Pernille Buch-Pedersen**
Company: **Baker Engineers**
Fax #: **703-960-9125**
Date: **10/21/98**
CC:

FROM

Name: **Jeff Daniel**
Office: **San Diego**
Tel. #: **(619) 278-9392**
Job #: **SD0339**
Total #Pages Including cover: **2**
Original be mailed.

NOTES

Attached is a sketch of the confluence of Duck Creek and Las Vegas Wash. The tributary proceeds up to Charleston Blvd and the main branch ends at Duck Creek. The starting conditions for the tributary are set at the water surface elevations of the main branch for the floodplain and floodway. The starting conditions for the tributary floodway is not 1' above the floodplain.

If you have any questions please let me know

Thanks,

Jeff Daniel

Daniel, Jeff G
From: Lyle, Scott R
Sent: Tuesday, September 29, 1998 1:19 PM
To: Daniel, Jeff G
Cc: Walters, Jon H
Subject: WACCO - Baker Response

Telecon with Pernille Buch-Pedersen, Baker Engineers re: Las Vegas Wash:

1. Ensign & Buckley did not include 500-year hydraulic analysis or mapping with their study.

2. Pernille will send us copies of Ensign & Buckley work maps by end of this week.

3. Nolte should talk to Les Sakumoto on how to pursue 500-year analysis.

Scott

Daniel, Jeff G
From: Lyle, Scott R
Sent: Tuesday, September 29, 1998 3:29 PM
To: 'lsaku@mindspring.com'
Cc: Walters, Jon H; Daniel, Jeff G
Subject: WACCO - Las Vegas Wash

I talked with Pernille Buch-Pedersen of Baker Engineers today regarding 500-year analyses and mapping for Las Vegas Wash. Pernille said that Ensign & Buckley (E&B) did **not** analyze or map 500-year event upstream of Charleston Boulevard.

If we are to analyze and map the 500-year floodplain through our study area, then we will need to know what the 500-year discharge is entering our reach. The most efficient and cost effective solution is to have E&B analyze the 500-year storm through their study reach and calculate 500-year in-channel and spill flows. Is it possible for FEMA to contract with Ensign & Buckley to perform these analyses?

Please let me know how you wish to proceed with these analyses.

Scott

San Diego Office

FAX TRANSMITTAL

TO

Name: **Robert Thompson**
Company: **Clark County DPW**
Fax #: **(702) 388-2550**
Date: **September 2, 1998**
CC:

FROM

Name: **Scott Lyle**
Office: **San Diego**
Tel. #: **(619) 278-9392**
Job #: **SD0339 RE**
Total #Pages Including cover: **1**
Original be mailed.

NOTES

Robert -

We have reached a critical stage in our hydraulic analyses for Las Vegas Wash and need to incorporate the grading information for the new golf course. I still have not received this information to date. What can I do to expedite receipt of these plans?

I also have an additional request. Our study needs to tie in with the Duck Creek analyses performed by Nimbus Engineers. We are trying to match their water surface profile at Rebel Drive. Do you have improvement plans for Rebel Drive at Duck Creek Wash crossing (just north of Boyd Stadium)?

Thanks for your help.

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY **DATE:** August 20, 1998
Clark County

CONTACT REPORT BY

NAME OF PERSON REPORTING
Scott R. Lyle

NAME OF OFFICE
Nolte and Associates
San Diego

METHOD OF CONTACT

___ Correspondence ___X_ Telephone ___ Visit

OTHER INDIVIDUALS INVOLVED

NAME/TITLE

Kevin Eubanks, Clark County RFCD (702) 455-3139

SUBJECT

I called Kevin to update him on status of study and to find out if there was any new information that needed to be incorporated into our study.

1. I told Kevin that we would be submitting Las Vegas Wash study within the next three months to FEMA.
2. Kevin did not have any new information (i.e., new projects, grading) for the study reach.
3. Kevin recommended Nolte contact Robert Thompson at County DPW regarding any new information. I told Kevin we had already contacted Robert regarding new information and we will be receiving improvement plans for new golf course.

Daniel, Jeff G

From: Walters, Jon H
Sent: Monday, August 17, 1998 7:50 AM
To: Lyle, Scott R
Subject: WACCO

Scott -- Please give our contacts in Reno and Las Vegas a "courtesy" call to let them know we are getting ready to send our studies to Baker and ask them if there are any recently completed improvements that we should include. then please put contact report in file, cc to Les. thanks.

Daniel, Jeff G
From: Lyle, Scott R
Sent: Thursday, July 16, 1998 3:04 PM
To: Walters, Jon H
Cc: Daniel, Jeff G
Subject: WACCO - LV Wash

Telecon with Robert Thompson @ County of Las Vegas (702) 455-4633:

1. Earth fill along Vegas Valley Road across from City of Las Vegas WWTP is permanent.
2. Proposed golf course to be constructed at this location. City of Las Vegas land to be leased to golf course owner.
3. Hydraulic analyses has been performed to show that earth fill will not impact 100-year wsel. Robert not sure who did analyses.
4. Local drainage has been channelized to dump on upstream side of bridge.
5. Robert to track down plans of golf course and mail us copies.

I'll keep tabs on this to make sure we get plans.

Scott

Daniel, Jeff G
From: Lyle, Scott R
Sent: Friday, July 10, 1998 10:31 AM
To: Walters, Jon H
Cc: Daniel, Jeff G
Subject: WACCO - LV Wash

Telecon w/ Pernille Buch-Pedersen of Baker Engineers:

1. Pernille to send copies of Ensign & Buckley Las Vegas Wash study results at Charleston Blvd. Pernille with send out on Monday either overnight or email.

2. Told Pernille we will coordinate Duck Creek Wash results with mapping she's doing. Maybe discuss at August meeting in Laughlin.

Scott

MEMORANDUM

TO: **Jim Denney**
Cathy Hendrickx

DATE: **June 22, 1998**

FROM: **Scott Lyle**

PROJ #: **SD0339**

SUBJECT: **NV FIS Surveys and Photogrammetry**

Here is a reminder on how we would like the Las Vegas Wash HEC-2 data prepared. Please provide all cross section data in *HEC-2* digital format as described below:

Cross section data should be entered in *HEC-2* format (X1 and GR cards), with data beginning from the left end of the cross sections when looking downstream.

Channel flow lines (the lowest point) should correspond to station 5000.

Cross sections at road crossings should be taken at both the downstream and the upstream face of the bridge/culvert, but should reflect the **channel and ground elevations** adjacent to the bridge/culvert. (**Note:** Las Vegas Wash cross sections 399 & 400, 439 & 440, 469 & 470, 479 & 480 are located at the downstream and upstream faces of bridges. These sections should represent the channel ground configuration at the bridge faces, **not** the top of the road.

Please provide endpoint coordinate values for the portions of Las Vegas Wash cross sections which are obscured by vegetation. Our survey crews will use these coordinates to determine the cross section locations in the field and to identify the match points between field and photogrammetric data.

Please use the digital drawing we sent you (dated 5/22/98) to locate cross sections.

As we will be starting work immediately upon receipt of your data, please keep Jon Walters or me informed regarding the progress of your work. Please also let us know if you have any questions regarding our needs. We want to help you finish your work as accurately and efficiently as possible.

We will work closely with you to assure timely completion of your work in a way that meets FEMA's requirements. Thank you for your commitment to this project.

Daniel, Jeff G
From: Lyle, Scott R
Sent: Monday, February 02, 1998 1:18 PM
To: Walters, Jon H
Cc: Daniel, Jeff G
Subject: WACCO - Las Vegas Wash

We have received digital files and maps for Duck Creek Wash, Flamingo Wash, and Las Vegas Wash (upstream of Charleston Blvd) from Baker Engineers. Jeff will ensure conformity between these studies or make a determination of non-conformity. Jeff has updated the bibliography to include these documents.

Daniel, Jeff G
From: Lyle, Scott R
Sent: Wednesday, January 21, 1998 9:49 AM
To: Walters, Jon H
Cc: Daniel, Jeff G
Subject: WACCO Text Files

Diana Bradley, FEMA librarian at Baker Engineers, said there were no digital text files for Washoe County or Clark County study areas. Text produced for these study areas have been pieced together over the years using different formats.

Looks like we'll be typing this stuff in from scratch.

Daniel, Jeff G
From: Walters, Jon [NOLTE/SD/WALTERJ]
Sent: Monday, December 08, 1997 10:48 AM
To: Lyle, Scott
Subject: FW: Nevada FIS - Photogrammetry

-----Original Message-----
From: Walters, Jon
Sent: Monday, October 13, 1997 11:59 AM
To: 'Sakumoto, Les'
Subject: Nevada FIS - Photogrammetry

Hi Les -- I've spoken with a number of Study and photogrammetric contractors, met with Cooper and our survey staff, and discussed the Guidelines with John Lesko at Baker. I clearly understand your desire to have accurate cross-section data, especially at key hydraulic control points. Here's what I recommend to complete our Nevada studies...

We will use Cooper's 4-foot contour topo and digitized cross-sections for the Reno and Las Vegas Wash study areas, supplemented with field obtained cross-sections as follows:

- Las Vegas Wash - approximately one-third of the study reach is obscured by vegetation. Field cross sections will be obtained for these areas to complete the digitized photogrammetric cross-sections. Additional field cross sections will be taken along Telephone Line Road, and at paved "Arizona" type crossings. These data will be supplemented with "As-built" information for crossings at Charleston, Nellis, Sahara and Vegas Valley Drive, and Lake Las Vegas, as well as plans for the concrete-lined portions of Las Vegas Wash Channel.
- Virginia Foothills - we will take a field cross section along Mira Loma Road
- Hidden Valley - we will take field cross sections along the centerline of most of the paved streets in the study area, along the top of the levee, at the top of the detention basin and at three key channel locations.
- Golden Valley - along the centerline of 6 paved roads throughout the study area, and at 6 key locations along the channel.
- Sun Valley - along the top of the dam and spillway, at 8 key locations along the channel, and along the centerline of 8 streets throughout the study area.

The vertical accuracy of field cross section data, taken from paved surfaces, will be +/- 0.25 feet.

I believe that this is the best course of action for completing this study within budget. You may have confidence that the resulting topographic data are better than or equal to all adjacent study areas, with the possible exception of Duck Creek which, we were told, was mapped with a contour interval of 2-feet.

Please let me know if you have any questions and if you agree with my recommendations. I would like to send our survey crews out this month and authorize Cooper to complete the remaining digitization, so please let me know what you think as soon as you can.

Thank you!

Jon

Colorado Springs Denver Fort Collins
Manteca Orange County Sacramento
San Diego San Francisco San Jose
Walnut Creek

TRANSMITTAL MEMORANDUM FROM SAN DIEGO OFFIC

TO: Michael Barker Corporation
3601 Eisenhower Ave., #600
Alexandria, VI 22304

ATTN: Stan Grzeda
DATE: 08/15/97
PROJECT: Clark County FIS

NOLTE JOB # : SD0339

The Following Items Are Being Forwarded: **Attached via Overnight**

Item	Quantity	For Your Use	As Requested	For Your Review
CD-ROM of 10% sbumittal	1			
10% FIRM	1			
Projection and Layer Information	1			

Remarks:
Stan:
Here is our 10% digital submittal for Clark County, Nevada. Call if you have any question.

C.C.: Les Sakumoto, FEMA

By: Dan Schaaf, Assistant Engineer

August 13, 1997
SD0339 RE

Mr. Roger Mendenhall
Project Manager
Clark County DPW
Clark County Government Center
500 S Grand Central Pky, Ste 2001
Las Vegas, NV 89155

SUBJECT: WACCO - Sahara Avenue Bridge Crossing at Las Vegas Wash

Dear Roger:

Here is our check for $44.00 (check #9290) to purchase the Sahara Avenue improvement plans. We understand this check will pay for 22 blueline sheets ($2 per sheet) and that the improvement plans are representative of as-built conditions (even though they haven't been signed off yet).

Please mail the improvement plans to the address shown on my enclosed business card. Thank you for your help in researching improvement plans for our FEMA flood study.
Sincerely,
NOLTE and ASSOCIATES, Inc.
Scott R. Lyle, P.E.
Senior Engineer

Enclosure

Daniel, Jeff G

From: Lyle, Scott [NOLTE/SD/LYLE]
Sent: Friday, August 08, 1997 11:36 AM
To: 'sakumoto, les'
Cc: 'Walters, Jon'; 'Schaaf, Dan'
Subject: WACCO - Las Vegas Wash

I performed very preliminary HEC-2 analyses for Las Vegas Wash from the WWTP access road to Charleston Boulevard (the upper 3 miles of the wash). The preliminary results show that the 100-year flood of 6700 cfs will be contained in the channel from Sahara Avenue upstream to Charleston Boulevard.

These results indicate that there probably will not be spill analyses performed for this reach of the wash.

Please give me a call, or email me, if you have any questions.

San Diego Office

FAX TRANSMITTAL

TO

Name:	**Will Thomas**
Company:	**Michael Baker Jr., Inc.**
Fax #:	**(703) 960-9125**
Date:	**08/08/97**
CC:	**Pernille Buch-Anderson**

FROM

Name:	**Scott Lyle**
Office:	**San Diego**
Tel. #:	**(619) 278-9392**
Job #:	**SD0339 HO**
Total #Pages Including cover:	**4**
Original be mailed.	

NOTES

Here are the flood discharges we are using for the Las Vegas Wash Flood Insurance Study (FEMA Contract EMF-96-CO-0099). We have also included a letter from the Clark County Regional Flood Control District (dated February 18, 1997) which states their acceptance of these flood discharges.

Please let me know if you have any questions regarding this study or these discharges.

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY DATE:

Clark County July 16, 1997

CONTACT REPORT BY

NAME OF PERSON REPORTING **NAME OF OFFICE**

Scott Lyle, Nolte & Associates San Diego

METHOD OF CONTACT

__ Correspondence _X_ Telephone __Visit

OTHER INDIVIDUALS INVOLVED

NAME/TITLE

Ed Mighell, Tipton & Kalmbach (303) 292-2727

SUBJECT

Lake Las Vegas hydraulic analysis.

Water surface elevation in the lake is maintained at 1403.
The bypass pipes carry less than the 10-year event (rated capacity at 1760 cfs).
Available storage in lake will contain 10-year event without spillage.
Montgomery performed hydraulic analyses for 10- and 25-year events.
For FEMA study, assume critical depth over road crossing at upstream end.

March 31, 1997
SD0339LS

Ms Cathy Hendrickx
Cooper Aerial of Nevada
3750 South Valley View
Suite 7
Las Vegas, NV 89103

SUBJECT: Adjustment from NAVD 88 Vertical Datum to 29 NGVD Datum

Cathy, please provide a correction of minus 2.35 feet to all of the vertical control datum that we sent you on Las Vegas Wash. I.E. Point 101 was 1746.93 feet, now 1744.58 feet.

Sincerely,
NOLTE and ASSOCIATES, Inc.
Ronald C. Parker
Chief of Survey / Associate

Daniel, Jeff G
From: Walters, Jon [NOLTE/SD/WALTERJ]
Sent: Monday, March 17, 1997 3:05 PM
To: lsaku@pop.mindspring.com
Cc: Lyle, Scott
Subject: RE: Las Vegas Wash-Nolte Study

Thanks ,Les. Let's discuss when you're here this Wed. I'm dead in the water on the Las Vegas piece until we get this resolved.

From: lsaku@pop.mindspring.com
To: TSMITH@MBAKERCORP.COM
Cc: Jon Walters
Subject: Las Vegas Wash-Nolte Study
Date: Monday, March 17, 1997 2:53PM

<<File Attachment: ENVELOPE.TXT>>
Tom:

Need to run some items thru you on the Las Vegas Wash Restudy that Nolte is doing. It's only 11 miles and it's the last piece of Las Vegas Wash. Charleston to Lake Las Vegas. Because it's the last piece, I requested Nolte to make sure that it's using the 1929 datum. We are having a hard time trying to get some type of uniform adjusted between the 1929 and 1988. The County surveyor is adament about using the 1988 and will not help us in getting the best set of usable benchmarks. We think we have a a workable set of benches to use that will bring the survey in within our specs but want to run this by your crew before we get too far into the map manuscript. Let me know when we can have a conference call on this. I can send you a description of the problem and our solution before hand.

Thanks.....Les

MEMORANDUM

TO: **Jon Walters** **DATE:** **March 13, 1997**

FROM: **Ronald Parker** **PROJ #:** **SD0339 LS**

SUBJECT: ***Las Vegas Wash Benchmarks***

The Benchmark (BMs) that were used to control the aerial topographic survey for the Las Vegas Wash were the City of Las Vegas BM 6C02 33SWS, Clark County BMs 6C12 95SWS, 6C12 16SWS, 6C12 28NE6 and 6C12 35NWW6 and the U.S. Department of Interior Benchmarks 8HLS and 9HLS.

The City of Las Vegas publishes their vertical datum in both NGVD 29 and NAVD 88. Clark County publishes only NAVD 88 datum and will not provide NGVD 29. The U.S. Department of Interior provided us with NGVD 29 Elevations. NAVD 88 elevation were obtained from the National Geodetic Survey Computer Program "Vertcon."

Nimbus Engineers, who are doing the Duck Creek Survey used Clark County's Benchmark V-51 that has a published elevation in NAVD 88 as shown in their vertical control book dated 1992. Nimbus Engineers sent me a copy of a page from a 1988 Clark County vertical control book that has NGVD 29 datum on V-51. This also provided us with 29 datum on 6C12 35NWW6.

The general location of the Benchmarks with both datum's as they relate to our survey, with their respective vertical values and the difference between the values are as follows.

BM	LOCATION	NGVD 29	NAVD 88	DIFF.
6C02 33SWS	Located at the north end of the survey at the intersection of Nellis and Charleston.	1739.619	1742.102	2.483
6C12 35NWW6	Located approximately at the mid point of our survey on Hollywood blvd. 0.2 mile South of Russell Road.	1637.430	1639.774	2.344
V-51	Located approximately at the mid point of our survey on Boulder Hwy South of Hamilton Ave.	1653.781	1656.132	2.351
BM	LOCATION	NGVD 29	NAVD 88	DIFF
8HLS	Located near Eastern end of our survey on Lake Mead Drive near the entrance road to Lake Las Vegas.	1715.630	1717.919	2.289

9HLS	Located at Eastern end of our survey on Lake Mead Drive Approximately 1.5 miles West of 8HLS.	1695.153	1697.438	2.285

Elevations were established on our vertical control points by a combination of differential leveling using a wild NA 2000 automatic level and differential GPS techniques using static positioning procedures. The NA 2000 is a first order level.

It is my opinion that by using the mean of the difference of the five Benchmarks with both 29 and 88 datum, of 2.350 feet, our survey will be within the vertical control accuracy for leveling the photogrammetric stereo models of $\pm$ 0.4 feet as stated on page A4-8 of FEMA's Appendix 4 Aerial Mapping and Specifications.

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY	DATE:
Clark County, Nevada	March 5, 1997

CONTACT REPORT BY

NAME OF PERSON REPORTING	NAME OF OFFICE
Scott Lyle, Nolte & Associates	San Diego

METHOD OF CONTACT

___ Correspondence ___X_ Telephone ___ Visit

OTHER INDIVIDUALS INVOLVED

NAME/TITLE

Jim Dorsey, Clark County Deputy Surveyor (702) 455-6150 (fax 6203)
Les Sakumoto, FEMA
Jon Walters, Nolte
Scott Lyle, Nolte
Ron Parker, Nolte

SUBJECT

We are looking for the cleanest datum conversion from NAVD 88 to NGVD 29 for Las Vegas aerial work.
The majority of the panels in Clark County (including Las Vegas Wash) are on NGVD 29. The Nolte restudy will only update 5 (out of approximately 225) panels.
Jim D. - NGVD 29 benchmarks were last checked in 1988. These benchmarks are not maintained.
Jim D. - Clark County doesn't want to release NGVD 29 benchmark data. In their eyes, NGVD 29 doesn't exist anymore.
There is not a constant delta between NGVD 29 and NAVD 88 benchmark data. There has been subsidence of approximately 0.01 feet per month since 1988 for some locations.
Les S. - NGVD 29 will be used as the mapping datum on new FIRMs for Nolte study reach. NAVD 88 correction will be shown on these maps.
Subsidence has occurred with NAVD 88 benchmarks also. Alluvial fan possibly sinking due to groundwater pumping. NAVD 88 benchmarks in foothill bedrock are stable and used to check subsidence.

Nolte to apply one conversion through entire reach, if possible. Nolte to review Duck Creek surveys and check conversions against benchmarks located at the north and south ends of the study reach.
Nolte will write a memo of understanding to FEMA stating how conversion from NAVD 88 to NGVD 29 will affect FEMA specifications related to vertical accuracy.

Note: Based on research Nolte performed after this teleconference, it was determined that a conversion of -2.35 feet will be used to convert NAVD 88 datum to NGVD 29 datum.

Daniel, Jeff G
From: Walters, Jon [NOLTE/SD/WALTERJ]
Sent: Friday, February 28, 1997 5:16 PM
To: Lyle, Scott
Cc: *Parker, Ron*
Subject: RE: WACCO - Vertical Datum

FYI I spoke with Les Thurs night and told him this. He is hopeful that adjustment factor between '29 and '88 will be constant so we can adjust like Nimbus did on Duck Creek. He thought that Duck Ck study reach was 7 or 8 miles long.

From: Lyle, Scott
To: Walters, Jon
Cc: Schaaf, Dan
Subject: WACCO - Vertical Datum
Date: Thursday, February 27, 1997 11:19AM

In response to Les Sakumoto, here's a summary of vertical datums used for WACCO project and the implications in revising the datum.

NGVD 29 was used for Washoe County surveys.

NAVD 88 was used for Las Vegas Wash surveys. This vertical control was used for several reasons:
Las Vegas County benchmark data is at NAVD 88
NGVD 29 data could be tainted because of past subsidence

In Las Vegas, NAVD 88 is approximately 1.7' higher than NGVD 29 (varies from area to area). If we are to convert topo back to NGVD 29, the following tasks must be completed:
Surveyors have to resolve vertical differences between datums.
FEMA must accept accuracy limitation due to subsidence impact.
Photogrammetrist must redo almost the entire 11 mile reach.

I have a voice mail into Les to see what the next step is.

February 12, 1997
SD0338 HO
Mr. Kevin Eubanks
Clark County RFCD
301 E. Clark Avenue
Suite 301
Las Vegas, NV 89101

SUBJECT: Las Vegas Wash Hydrology

Dear Kevin:

This letter is to confirm our understanding of flood discharges to be used in our Flood Insurance Study analyses for Las Vegas Wash (FEMA Contract EMF-96-CO-0099). Our study reach extends from the Lake Las Vegas intake structure to Charleston Boulevard. Based on our previous conversations with you and FEMA, discharges published in the JMM report entitled "Las Vegas Valley Flood Insurance Study Hydrology Report", dated September 1991, are to be used for our study. These discharges are listed below.

Location	10-Year Peak Discharge (cfs)	50-Year Peak Discharge (cfs)	100-Year Peak Discharge (cfs)	500-Year Peak Discharge (cfs)
Upstream of Flamingo Wash	2,200	5,100	6,700	11,600
Downstream of Flamingo Wash	2,500	5,500	7,100	14,300
Downstream of Duck Creek	3,000	8,500	11,500	24,000

These values are consistent with the Las Vegas Wash/Range Wash LOMR prepared by G.C. Wallace, dated January 14, 1994. In addition, these discharges match the Flood Insurance Study prepared by Ensign & Buckley for Las Vegas Wash upstream of Charleston Boulevard (currently being reviewed by the FEMA TEC, Baker Engineers).

Please send a letter to us confirming these discharges. Your letter is required as part of the hydrologic verification in our submittal to FEMA. Please give me a call if you have any questions regarding these discharges.

Sincerely,
NOLTE and ASSOCIATES, Inc.

Scott R. Lyle, P.E.
Senior Engineer

cc: Les Sakumoto, FEMA
Jon Walters, Nolte and Associates

Daniel, Jeff G
From: Lyle, Scott [NOLTE/SD/LYLE]
Sent: Thursday, November 21, 1996 9:54 AM
To: 'Walters, Jon'
Cc: 'Schaaf, Dan'
Subject: WACCO Research

Here's an update on research documents for Las Vegas Wash:
1. Called Dirck Van Gorp at Clark County Parks & Recreation. They have hard copy topographic mapping (dated early '95?) at 2' c.i. for reach from Vegas Valley Road to Lake Las Vegas intake structure. Dirck not sure if digital files available.

Dirck to fax us a "shared info" standard form letter . . . he wants us to check it out with our legal beagles.

2. Called Jeff Liston at JMM. They're sending us copies of plans for Lake Las Vegas intake structure.

ANNOUNCEMENT OF INTENT TO PERFORM FLOOD EVALUATION STUDY

The Federal Emergency Management Agency announced today that under authority of the National Flood Insurance Act of 1968 (P.L. 90-448), as amended, and the Flood Disaster Protection Act of 1973 (P.L. 93-234), it will fund a detailed study of the flood hazard areas along Las Vegas Wash from Charleston Boulevard to Lake Las Vegas in Clark County and the City of Henderson. The study will be performed for the Federal Emergency Management Agency by Nolte and Associates, Inc. The purpose of this study is to examine and evaluate the flood hazard areas in the community that are developed and are likely to be developed and to determine flood elevations for those areas. Flood elevations will be used by the community to carry out the floodplain management objectives of the National Flood Insurance Program. They will also be used as the basis for determining the appropriate flood insurance premium rates for buildings for their contents.

This announcement is intended to notify all interested persons of the commencement of this study so that they may have an opportunity to bring any relevant facts and technical data concerning local flood hazards to the attention of the Federal Emergency Management Agency for consideration in the course of this study. Such information should be furnished to Scott Lyle, Nolte and Associates, Inc., 5469 Kearny Villa Road, Suite 304, San Diego, CA 92123.

San Diego Office

FAX TRANSMITTAL

TO

Name: **B.J.**
Company: **Las Vegas Review Journal**
Fax #: **702-383-4693**
Date: **11/08/96**
CC:

FROM

Name: **Anna Zawislanski**
Office: **San Diego**
Tel. #: **(619) 278-9392**
Job #: **SD0339**
Total #Pages Including cover: **2**
Original be mailed.

NOTES

B.J.: Here is the legal I talked to you about. Please call me back with the rate for 7 days. My phone number is 619-278-9392. Company name and address is:

Nolte and Associates, Inc.
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

Thanks.

San Diego Office

FAX TRANSMITTAL

TO

Name: **Kevin Eubanks**
Company: **Clark County RFCD**
Fax #: **(702) 455-3870**
Date: **November 06, 1996 (Wednesday)**
CC: **Jon Walters, Nolte**

FROM

Name: **Scott R. Lyle**
Office: **San Diego**
Tel. #: **(619) 278-9392**
Job #: **SD 0339**
Total #Pages Including cover: **1**
Original be mailed.

NOTES

We're having a hard time connecting, so I thought I'd fax you. Jon Walters and I will be in Las Vegas on November 11 and 12. We'd like to meet with you in the afternoon on either one of these days. In addition, I'd like to obtain copies of the following documents/studies:
Two 84-inch pipes at Lake Las Vegas entrance
Charleston Blvd as-builts
Hydrology studies (besides JMM report)
Parks & Recreation topo maps?? (Les Sakumoto mentioned this)
Water quality information on base flow.
What's being discharged in Las Vegas Wash besides rainwater??

Please call or fax me your preference on meeting time and place. Thanks.

FLOOD INSURANCE STUDY - CONTACT REPORT

NAME OF COMMUNITY DATE: June 10, 1996
Clark County

CONTACT REPORT BY
NAME OF PERSON REPORTING | **NAME OF OFFICE**

Scott R. Lyle | Nolte and Associates
San Diego

METHOD OF CONTACT
__ Correspondence X Telephone __ Visit

OTHER INDIVIDUALS INVOLVED
Name/Title
Robert Garza

Address
Las Vegas, Clark County
Telephone Number
(702) 455-3139

SUBJECT

GIS Contact

SUMMARY OF CONTACT

1. Robert is GIS contact at Clark County. Robert is sending us a condensed version catalog of GIS files/layers available at the County. There is a more detailed listing of layers available if we need more information.

2A1 CID32003 001

Study Contractor: Nolte & Associates, Inc.

HYDROLOGIC ANALYSES REPORT INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Fax to Will Thomas, Regarding flows		Pg. 2
Las Vegas Wash	Ltr accepting flows from Clark County		Pg. 3
Las Vegas Wash	Ltr Requesting Hydrology Confirmation		Pg. 4
Las Vegas Wash	JMM FIS Hydrology Rpt. 9/91, Chap 10		Pg. 5-10

NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors

San Diego Office

FAX TRANSMITTAL

TO

Name: **Will Thomas**

Company: **Michael Baker Jr., Inc.**

Fax #: **(703) 960-9125**

Date: **08/08/97**

CC: **Pernille Buch-Anderson**

FROM

Name: **Scott Lyle**

Office: **San Diego**

Tel. #: **(619) 278-9392**

Job #: **SD0339 HO**

Total # Pages Including cover: **4**

Original will not be mailed.

NOTES

Here are the flood discharges we are using for the Las Vegas Wash Flood Insurance Study (FEMA Contract EMF-96-CO-0099). We have also included a letter from the Clark County Regional Flood Control District (dated February 18, 1997) which states their acceptance of these flood discharges.

Please let me know if you have any questions regarding this study or these discharges.

JHW cc

CLARK COUNTY
REGIONAL FLOOD CONTROL DISTRICT

Gale Wm. Fraser, II, P.E.
General Manager/Chief Engineer

BOARD OF DIRECTORS

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Clark County

February 18, 1997

Mr. Scott R. Lyle, P.E.
Nolte and Associates, Inc.
5469 Kearny Villa Road, Suite 305
San Diego, California 92123

Las Vegas Wash Hydrology

Dear Mr. Lyle:

The District takes no exception to application of the flood discharges presented in your letter to me dated February 12, 1997 as you continue your Flood Insurance Study Analysis for the Las Vegas Wash (FEMA Contract EMF-96-CO-0099).

If I can be of any further assistance, please do not hesitate to call.

GALE WM. FRASER II, P.E.
General Manager/Chief Engineer

BY: _____
Kevin L. Eubanks, P.E.
Assistant General Manager

cc: Les Sakumoto, FEMA IX
Robert Thompson, CCPW
Jon Walters, Nolte

KLE:csm

File: CLA.08.B.93

301 E. Clark Avenue, Suite 301 • Las Vegas, Nevada 89101
(702) 455-3139 • FAX: (702) 455-3870

February 12, 1997
SD0338 HO

Mr. Kevin Eubanks
Clark County RFCD
301 E. Clark Avenue
Suite 301
Las Vegas, NV 89101

SUBJECT: Las Vegas Wash Hydrology

Dear Kevin:

This letter is to confirm our understanding of flood discharges to be used in our Flood Insurance Study analyses for Las Vegas Wash (FEMA Contract EMF-96-CO-0099). Our study reach extends from the Lake Las Vegas intake structure to Charleston Boulevard. Based on our previous conversations with you and FEMA, discharges published in the JMM report entitled "Las Vegas Valley Flood Insurance Study Hydrology Report", dated September 1991, are to be used for our study. These discharges are listed below.

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Downstream of Flamingo Wash	2,500	5,500	7,100	14,300
Downstream of Duck Creek	3,000	8,500	11,500	24,000

These values are consistent with the Las Vegas Wash/Range Wash LOMR prepared by G.C. Wallace, dated January 14, 1994. In addition, these discharges match the Flood Insurance Study prepared by Ensign & Buckley for Las Vegas Wash upstream of Charleston Boulevard (currently being reviewed by the FEMA TEC, Baker Engineers).

Please send a letter to us confirming these discharges. Your letter is required as part of the hydrologic verification in our submittal to FEMA. Please give me a call if you have any questions regarding these discharges.

Sincerely,

NOLTE and ASSOCIATES, Inc.

Scott R. Lyle, P.E.
Senior Engineer

cc: Les Sakumoto, FEMA
Jon Walters, Nolte and Associates

Clark County Regional Flood Control District

Las Vegas Valley Flood Insurance Study Hydrology Report

September 1991

James M. Montgomery

CHAPTER 10

LOWER LAS VEGAS WASH FIS HYDROLOGY

INTRODUCTION

This chapter summarizes the existing conditions/existing facilities analysis of Lower Las Vegas Wash conducted for the new FIS Hydrology study for Las Vegas Valley. The purpose of the analysis was to develop acceptable discharges for use in future Flood Insurance Studies for Lower Las Vegas Wash. In addition, results could be used to assess the adequacy of existing facilities to handle existing conditions flood discharges. For purposes of this study, Lower Las Vegas Wash is defined as the main Las Vegas Wash Channel from the Pecos/Lake Mead bridge crossing in North Las Vegas downstream to the Lake Las Vegas intake structure.

The key previous hydrologic analysis of Lower Las Vegas Wash is the Corps of Engineers Special Flood Hazard Study. This study presents existing conditions, computed probability discharges for Lower Las Vegas Wash based on conditions at the time of the analysis (1988). Other previous studies include the CCRFCD Master Plan (1986) and the Clark County Flood Insurance Restudy (1985), both prepared by JMM. The COE study utilized information from each of these analyses. There are no recent feasibility or preliminary design level studies for Lower Las Vegas Wash.

METHOD OF ANALYSIS

The Lower Las Vegas Wash drainage area varies from 735 square miles at Pecos/Lake Mead to 1460 square miles at Telephone Line Road.

Inflows to the study reach consist of six major tributary confluences, and minor local tributary drainages. The major confluences are:

Las Vegas Creek (Washington Ave. Channel)	27	square miles
Range Wash	151	square miles
Flamingo Wash	145	square miles
Duck Creek	234*	square miles
Pittman Wash	118	square miles
C-1 Channel	39	square miles

*Including total Upper Blue Diamond watershed

Due to the large drainage area of Las Vegas Wash compared to the typical storm area of about 200 square miles, previous studies have estimated peak flows in Lower Las Vegas Wash based on the peak inflows from the various major tributaries. Past analyses by JMM and COE found that a general storm covering the entire drainage area would not generate critical peak discharges. The selected approach has been to begin at the upstream end of the study reach and move downstream, adopting the largest peak tributary inflows as Las Vegas Wash peak flows. This approach is conservative in that it does not account for channel routing effects in the Las Vegas Wash floodplain. In addition it does not consider the possibility of concurrent 100-year storms over more than one major tributary; an occurrence of an event of this type would have a return period exceeding 100 years.

Although there are no recent or pending improvements on Lower Las Vegas Wash which would affect peak discharges, the recommended approach accounts for facilities constructed or proposed for construction on each of the major tributaries. Facilities thus incorporated into the "existing conditions" analysis include:

West Range Wash Diversion Dike
North Las Vegas Detention Basin Modifications
Upper Las Vegas Wash Detention Basin and Collection Dike
Gowan Detention Basin and Outfall
Angel Park Detention Basin Modifications
Cheyenne Channel, Buffalo Channel, and Hualpai Diversion
Upper Flamingo Detention Basin

SUMMARY OF RESULTS

Table 10-1 and Figure 10-1 present a summary of existing conditions peak discharges for Lower Las Vegas Wash. Table 10-1 also shows currently adopted regulatory discharges based on the COE Special Flood Hazard Study. It is seen that the FIS Hydrology flows are all significantly lower than the COE flows. This is attributed to the major future detention facilities assumed in the FIS analysis which reduce the peak flows tributary to Las Vegas Wash at most key inflow points. These detention facilities also invalidate flows based on the COE regional regression equations, which do not account for regulation in the tributary watershed. As a result, the FIS Hydrology flows are recommended for use in future FIS studies.

Table 10-2 presents recommended FIS discharges for 10-, 50-, 100-, and 500-year return periods. FIS flows for all recurrence intervals were taken from model results or adopted flows for the major tributaries to Las Vegas Wash, as summarized in Figure 10-1. Although there is excellent agreement between the COE computed probability flows (regulatory discharges) and the FIS flows for the 10-year event, differences become progressively larger for the more severe events. In all cases the FIS flows have been selected as the adopted flows because they account for existing and pending flood control improvements.

COMPARISON OF EXISTING CONDITION 100-YEAR DISCHARGES FOR LOWER LAS VEGAS WASH FIS HYDROLOGY

FIS Hydrology					COE Computed Probability						
CP/Node	Total Area	Storm Area	DARF	Flow	CP/Node	Total Area	DARF	Flow	Notes	Description	Adopted Discharge
L1	735	112	0.59	6730	CP7	735	-	15000	1,4	@ Pecos/Lake Mead	6730
L2	768	112	0.59	6730	CP9	768	-	15000	1,4	D/S of Las Vegas Creek	6730
					CP10	800	-	15000	4	@ Nellis Blvd	
L3	1011	145	0.57	7100					2	D/S of Flamingo Wash	7100
L4	1113	145	0.57	7100	CP3	1100	-	15000	2,4	@ Vegas Valley Dr	7100
L5	1473	164	0.54	11500	CP19	1460	-	16000	3	D/S of Duck Cr	11500

Notes:

General: FIS flows based on largest of upstream tributary inflows to Las Vegas Wash.
FIS flows include effects of pending flood control projects on all tributaries (Upper Las Vegas Wash Detention Basin, West Range Wash Diversion, Gowan Detention Basin, Angel Park Outfall, Upper Flamingo Detention Basin).

1. FIS flow from Northern Las Vegas Wash/Western Tributary drainage area.
2. FIS flow from Flamingo/Tropicana drainage area.
3. FIS flow from Duck/Blue Diamond drainage area.
4. COE flow from Northern Las Vegas Wash

TABLE 10-2

PROPOSED LOWER LAS VEGAS WASH FIS DISCHARGES

Node	Total Area (sq mi)	10-Year Peak Discharge				50-Year Peak Discharge				100-Year Peak Discharge				500-Year Peak Discharge		
		COE Reg Q	COE SFHS Q	Model Output	Adopted Flow	COE Reg Q	COE SFHS Q	Model Output	Adopted Flow	COE Reg Q	COE SFHS Q	Model Output	Adopted Flow	COE SFHS Q	Adopt Extrap	Adopted Flow
L1	735	3600	2000	2160	2200	10900	8600	5120	5100	16200	15000	6730	6700	40000	11600	11600
L2	768	3700	2100	2160	2200	11200	8600	5120	5100	16500	15000	6730	6700	40000	11600	11600
L3	1011	3900	2600	2500	2500	11700	9200	5500	5500	17200	15000	7100	7100	40000	14300	14300
L4	1113	3900	2600	2500	2500	11700	9200	5500	5500	17300	15000	7100	7100	40000	14300	14300
L5	1473	4100	3000	3000	3000	12100	10000	8500	8500	17700	16000	11500	11500	41000	24000	24000

Node	Location
L1	@ Pecos/Lake Mead
L2	D/S of Las Vegas Creek
L3	D/S of Flamingo Wash
L4	@ Vegas Valley Dr
L5	D/S of Duck Cr

COE Reg Q = Corps of Engineers Regional Discharge-Frequency Relationship
COE SFHS Q = Corps of Engineers Special Flood Hazard Study
Model Output = FIS Hydrology HEC-1 Model Output
Adopted Flow = Adopted Flow for FIS Purposes
Area = Drainage Area from FIS Hydrology

Note: FIS flows include effects of pending flood control projects on all tributaries (Upper Las Vegas Wash Detention Basin, West Range Wash Diversion, Gowan Detention Basin, Angel Park Outfall, Upper Flamingo Detention Basin).

Hydraulic Analyses

HYDRAULIC ANALYSES

HEC-2, Lake Las Vegas to Duck Creek
LVDUCK.OUT

HEC-2, Lake Las Vegas to Duck Creek – Floodway
LVDUCKFW.OUT

Profiles
LVDUCK.DAT

HEC-2, Duck Creek to Charleston Blvd.
LV.DAT

HEC-2, Duck Creek to Charleston Blvd. – Floodway
LVFW.DAT

Profiles
LV.DAT

HYDRAULIC ANALYSES

HEC-2, Lake Las Vegas to Duck Creek

LVDUCK.DAT

2Bb2 CID32003 001

Study Contractor: Nolte & Associates, Inc.

STARTING WATER SURFACE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Starting Water Surface for LVDUCK.DAT		Pg. 2

Study Contractor: Nolte & Associates, Inc.

HYDRAULIC MODELS INDEX

Clark County, Nevada

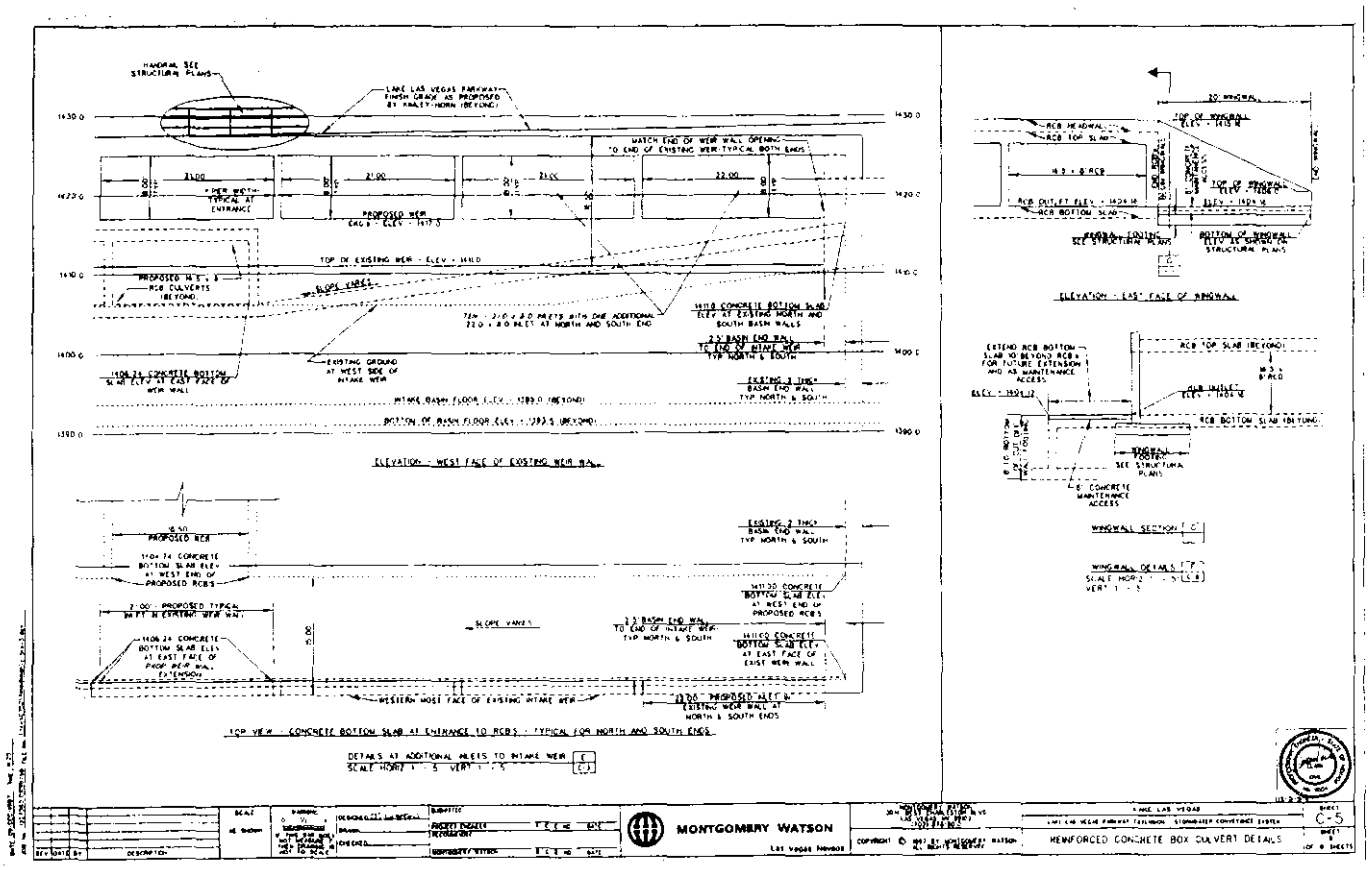
(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Lake Las Vegas to Duck Creek	2Bb12 CID 32003	002

The HEC-2 file LVDUCK.DAT from Lake Las Vegas to Duck Creek was started at critical depth with an estimated starting elevation equal to the weir crest elevation of the Lake Las Vegas box culverts (1417.0 feet).

Lake Las Vegas Parkway Extension – Stormwater Conveyance System 1998
Plans by Montgomery Watson dated 2-23-98



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 *  HEC-2 WATER SURFACE PROFILES         *
 *                                       *
 *  Version   4.6.0;  February 1991      *
 *                                       *
 *  RUN DATE    22JAN99    TIME   07:17:42 *
 *****************************************
```


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 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  HYDROLOGIC ENGINEERING CENTER      *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616-4687       *
 *         (916) 756-1104              *
 ***************************************
```


```
X     X  XXXXXXX   XXXXX             XXXXX
X     X  X         X     X          X     X
X     X  X         X                      X
XXXXXXX  XXXX      X          XXXXX   XXXXX
X     X  X         X
X     X  X         X     X          X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

1

THIS RUN EXECUTED 22JAN99 07:17:42

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 ************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
 ************************************
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```
T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Lake Las Vegas to Duck Creek
T2      Nolte and Associates, Jan 1998
T3      Boundary condition: Lake Las Vegas weir elev. = 1417
T4      based on Lake Las Vegas Parkway Ext. Plans by Montgomery Watson, 1997

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                2                             -1                            3000      1417

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1                 -1                                                -6

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150

J5  LPRNT     NUMSEC                        ********REQUESTED SECTION NUMBERS********

    -10       -10

NC    0.035     0.035     0.05      0.1       0.3
X1      100         9    383.4    637.6
GR     1430         0     1425       44      1425     383.4      1417     383.5      1417     637.5
GR     1425     637.6     1425      787      1426       790      1430       820

X1      105        17      378       620         1         1         1
X3        0                        383.5                   637.5
GR     1430         0     1420        95      1420       325      1410       362      1408       370
GR     1408       378     1406       470      1406       605      1408       620      1410       635
GR     1411       643     1412       650      1416       688      1416       745      1420       765
GR     1426       790     1430       820
  Berm at station 480 was removed based on field observations.

        Berm at station 480 was removed based on field observations.
X1      202        28    258.8    995.4       240       210       225
X3       10                        420       1430
GR   1437.7         0   1437.7       28    1438.2      44.2    1432.3      65.7    1429.9      97.3
GR   1428.5     124.4   1424.2    147.4      1421     162.6    1420.1       195    1418.8     208.8
GR   1417.2     234.9   1416.2    258.8    1416.2     432.9    1416.2     505.1    1416.2     954.5
GR   1418.3     961.7   1419.1    977.4    1424.2     995.4    1424.2    1018.8    1432.8    1044.3
GR   1440.4    1061.5   1452.3   1092.7    1460.1    1115.6    1460.1    1205.2    1458.4    1235.3
GR   1457.6    1268.3   1457.6   1302.8    1458.2    1331.2
  Berm at station 800 removed based on 1.1 foot overtopping during
  HEC-2 analysis.  Berm is not a FEMA certified Levee and does not meet
  freeboard requirements.
```

1


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        Berm at station 800 removed based on 1.1 foot overtopping during
        HEC-2 analysis.  Berm is not a FEMA certified Levee and does not meet
        freeboard requirements.
X1      204        33    143.1   1108.5       420       450       524
X3       10                        650      1430
GR     1430         0   1424.2     66.5    1425.6      89.6    1426.1     143.1    1424.2     150.4
```

GR	1421.3	156.1	1420.2	166.2	1417.8	174	1416.2	183.3	1412.9	187.8
GR	1412.9	198.4	1412.4	785.6	1416.2	955.4	1416.2	1077.6	1417.5	1091.7
GR	1420.2	1098.7	1422.3	1108.5	1425.3	1119.8	1428	1130.3	1430.2	1141.4
GR	1430.2	1161.5	1432.3	1172.5	1432.3	1180.8	1436.3	1199.4	1440.1	1214.8
GR	1444.2	1226.5	1454.7	1252.1	1453.9	1266.9	1452.3	1291.8	1452	1308.2
GR	1449.8	1319.2	1449.8	1371.7	1449.8	1415.8				
X1	206	32	4858	5199.6	379	400	410			
X3	10									
GR	1422.3	4324.9	1422.3	4355.9	1426.7	4374.1	1428.2	4415	1426.7	4485.7
GR	1426.7	4524.2	1426.7	4580.8	1426.7	4634.3	1426.7	4690.4	1426.7	4744.7
GR	1426.7	4799.3	1426.7	4858	1425.5	4881.6	1422	4914.3	1414	5000
GR	1414.8	5038.2	1416.1	5057.9	1416.1	5082.7	1416.1	5149.5	1426.2	5199.6
GR	1440	5269.6	1444.3	5292.4	1448.4	5322.4	1451.1	5359.7	1452.1	5372.8
GR	1452.1	5414.2	1450	5428.7	1450	5440.8	1452.7	5455.3	1452.7	5477.5
GR	1449.7	5503.7	1452.1	5513.6						
X1	208	32	460	655	401	440	443			
X3	10									
GR	1432.8	0	1439.8	30.8	1439.8	42.2	1436	50.4	1432.2	71.6
GR	1430.9	119.1	1430.1	154	1429.6	198.8	1430.1	269.4	1428.8	330.5
GR	1429	373.6	1438.4	460	1419.4	465	1424.7	650	1433.2	655
GR	1430.4	765.9	1430.6	812.9	1432.2	849.3	1433.9	881.5	1437.1	915.4
GR	1440.3	958.7	1445.2	1002.5	1450	1039.3	1455.1	1067.8	1456.2	1081.6
GR	1456.7	1099	1456.7	1116.3	1455.6	1175.7	1457	1198.3	1457	1226.2
GR	1460.2	1256.7	1464.2	1310.1						
NC	0.04	0.04	0.035							
X1	210	24	175	460	400	350	369			
GR	1448.1	0	1444.6	7.3	1439.8	19.7	1436.8	33.9	1436	74.2
GR	1435.7	128.1	1437.6	175	1418.6	180	1414.4	485	1438.4	460
GR	1439	545	1441.1	938.5	1442.5	977.1	1444.1	999.7	1451.3	1023.4
GR	1456.4	1039.9	1459.9	1051.3	1459.9	1065	1460.5	1089.3	1460.2	1098.8
GR	1465	1111.9	1472.6	1124.3	1476.1	1135.1	1478.8	1148.4		
X1	212	18	80	360	470	400	471			
GR	1462.6	0	1453.5	17.5	1444.3	46.3	1443.5	57.9	1442.7	77.7
GR	1444.3	80	1417.3	100	1421.2	350	1442.2	360	1442.7	411.7
GR	1443	477.8	1442.5	530	1444.9	960.3	1447	981.4	1460.2	1027.6
GR	1460.2	1049.5	1454.8	1073.2	1461.3	1099.9				
X1	214	30	320	500	515	490	590			
GR	1456.2	0	1453.5	56.5	1451.9	98.6	1451.1	145.5	1451.1	194.3
GR	1452.1	243.4	1452.4	286.6	1452.7	303.6	1453	320	1423	330
GR	1423.2	490	1456.2	500	1453.5	513.4	1453.5	550.7	1453.8	606
GR	1454.3	649	1456.2	711.4	1456.7	766.3	1457.8	821.5	1458.6	875.3
GR	1459.7	936.7	1460.5	995.8	1465	1014.3	1465	1036.4	1461	1047.6

GR	1461	1069.8	1462.6	1073.7	1462.3	1083.3	1462.1	1093.4	1460.5	1115.7
NC	0.045	0.045	0.045							
X1	216	55	203.4	273.5	532	465	560			
GR	1477.4	0	1464.2	37	1462.3	57.5	1461.3	98.8	1461	146.8
GR	1459.1	173.4	1455.1	176.3	1451.6	179.7	1440.9	184.6	1440.3	190.6
GR	1435.2	193.8	1430.6	197	1426.6	200.1	1424.2	203.4	1422	209.8
GR	1421.2	211.9	1421.2	252.6	1422.6	260.4	1422.6	267.2	1424.2	273.5
GR	1424.2	286.6	1424.2	299.2	1424.5	310.3	1427.9	502.3	1428.5	511.4
GR	1428.5	521	1429.8	530.4	1429.8	538	1431.2	546.7	1432.8	553.9
GR	1440	558.4	1443.5	561.8	1447.6	567.6	1451.6	573	1456.4	579.7
GR	1460.2	586	1464	589.9	1465	597.7	1465.8	605.1	1466.4	623.3
GR	1467.5	652.7	1468.3	685.5	1468.5	721.3	1469.6	766.6	1469.6	808.9
GR	1468.3	811.9	1468.3	820.8	1469.3	830.1	1469.6	873.4	1468.5	908.3
GR	1468.3	918.9	1468.3	945.9	1470.2	958	1470.4	1005.8	1470.2	1041.4
X1	218	21	230	607	520	460	830			
GR	1507.8	0	1497	48.5	1488.2	83	1476.1	121	1475.3	136
GR	1469.1	157.2	1468.8	199.9	1469.1	230	1468.3	230.9	1434.6	240
GR	1450	593	1465	607	1472.3	775.4	1473.4	837.2	1472.6	874.3
GR	1472.3	888.4	1472.6	922.3	1473.1	981.6	1474.7	1013.7	1476.9	1026.3
GR	1480.6	1041.3								
X1	220	22	390	751.9	480	503	738			
GR	1495.4	0	1483.6	42.8	1472.8	81.1	1472.6	135.8	1472.6	213.7
GR	1472.8	261.1	1472.8	316.1	1473.1	356.1	1473.2	390	1438.2	400
GR	1441.2	750	1472.3	751.9	1472.6	792.7	1473.6	798.8	1473.4	817.6
GR	1473.6	854.2	1476.9	872.7	1477.7	918.2	1479.3	925.5	1478.5	952.9
GR	1477.4	994.9	1474.2	1039.7						
X1	222	24	663	961.1	420	530	511			
X3	10									
GR	1484.4	0	1478.2	65.4	1477.1	134.5	1477.1	201.1	1476.6	264.9
GR	1476.6	331.4	1477.1	395.4	1477.7	456.5	1477.1	461	1477.1	524
GR	1475	566.8	1475.9	663	1445.9	673	1452	960	1477.9	961.1
GR	1478	965	1463.2	1047	1464.8	1077.6	1468	1143.5	1468.5	1161.4
GR	1480.6	1196.6	1480.6	1211.9	1468.3	1256.8	1469.1	1298.6		
X1	224	21	624	924	495	440	507			
GR	1486.4	0	1484.8	20	1484.5	93.7	1483.7	133.9	1484	209.4
GR	1484	272.7	1484	349.8	1485	420.4	1484.5	495	1483.4	568.5
GR	1482.9	612.7	1481.88	624	1449.88	634	1439.47	914	1480.47	924

GR	1480.7	941.5	1480.2	1002.2	1482.6	1218.8	1484.2	1289.4	1486.1	1356.4
GR	1488	1423.1								
X1	226	25	674.6	1133.2	300	500	796			
GR	1485.3	0	1485.3	72.7	1485.3	147.9	1485.3	220.3	1485.6	292.4
GR	1485.6	363.2	1485.6	444.6	1485.6	508.2	1485.6	583.9	1485.6	674.6
GR	1484.1	684	1456.6	694	1450.65	1120	1483.65	1130	1484.2	1133.2
GR	1485	1214	1484.8	1267.6	1485	1280.3	1488.8	1292.9	1492.3	1334.1
GR	1493.1	1389.8	1492.3	1412.7	1492.3	1439.1	1494.7	1454	1491.3	1473

1

NC	0.045	0.045	0.04							
X1	228	24	635	1086	440	560	615			
GR	1488.3	0	1488.5	77.2	1487.2	148.9	1487.7	228.1	1487.5	304.1
GR	1487.2	382	1487.7	456.5	1487.5	537.1	1488	599.5	1487.68	635
GR	1462.7	645	1463.28	1075	1488.28	1085	1488.3	1086	1487.7	1155.1
GR	1488.3	1226.8	1489.9	1306	1490.7	1327.6	1495.3	1383.9	1498.2	1436.3
GR	1498.8	1473.8	1504.1	1498.2	1500.1	1514.8	1498.8	1532.2		
X1	230	22	705	1005	540	450	513			
GR	1493.9	0	1492.8	78	1492.6	150.4	1492.3	215.9	1491.8	291.2
GR	1491.2	481	1491.2	550.9	1491.5	585.6	1490.74	705	1460.47	710
GR	1460.5	990	1490.47	1005	1489.9	1105.7	1489.6	1166.9	1490.2	1236.3
GR	1492	1311.3	1492.6	1347.1	1496.1	1370	1499	1391.1	1499	1417
GR	1496.1	1427.3	1496.2	1453.7						
X1	232	21	650	1034.8	460	445	470			
GR	1494.5	0	1495.3	37.4	1498.8	66.5	1499	85.2	1494.5	114.4
GR	1494.5	137.1	1494.2	204.9	1493.9	277.4	1494.2	344	1494.7	398.3
GR	1493.6	650	1451.6	660	1451.6	710	1492.3	1034.8	1492.64	1050
GR	1493.1	1091.3	1494.5	1150.2	1495	1209	1497.8	1263.4	1503.3	1307.2
GR	1503.6	1383.4								
X1	234	24	975	1190	360	265	431			
GR	1498.2	0	1497.9	82.9	1497.4	159.1	1496.6	230.4	1496.9	294.7
GR	1496.3	368.4	1496.3	438.9	1496.1	484.5	1496.1	555.6	1495.8	737.4
GR	1495.8	812.4	1495.22	975	1465.22	985	1475.12	1180	1495.12	1190
GR	1493.9	1268.6	1495	1320.2	1497.7	1361.1	1500.1	1427.3	1501.4	1477.7
GR	1509	1496.5	1509	1570.1	1522.9	1593.2	1526.2	1636.6		
X1	236	25	1115	1345	540	550	577			
GR	1502	0	1501.4	46.6	1501.2	137.6	1500.4	227.7	1499.8	315.3
GR	1499.6	409.1	1499.6	497.8	1499	588.1	1499.8	673.4	1500.1	768.6
GR	1498.9	1115	1467.85	1130	1464.51	1330	1496.9	1339.6	1497.51	1345
GR	1499	1408.6	1501.2	1474.4	1503.6	1539.4	1505.5	1589.9	1508.2	1636.9
GR	1527.5	1691.6	1527.5	1725.1	1512.7	1757.5	1516.2	1800.7	1520	1842.9
X1	238	28	554.6	1310	450	345	693			
GR	1503.9	0	1502.5	89.5	1503.3	179.6	1502	271.2	1501.7	356.4
GR	1501.7	448.7	1502	538.2	1501.2	554.6	1501.43	560	1474.43	570
GR	1478.8	1300	1500.82	1310	1501.2	1445	1502.5	1507.9	1506.3	1519
GR	1506.5	1522.8	1505.5	1531.5	1504.7	1542.2	1504.7	1555.3	1504.9	1573.2
GR	1505.5	1587.6	1507.6	1609.3	1512.5	1650.3	1519.2	1695.2	1524.3	1732.5
GR	1540.1	1770.6	1557.3	1815.1	1559.2	1837.9				
X1	240	22	360.15	910.15	438	500	455			
GR	1504.7	0	1504.1	85.2	1503.8	174.9	1503.8	258.7	1504.1	351.7
GR	1503.9	360.15	1484.8	365.2	1476.92	370	1478	890	1503	910.15
GR	1504.1	1308.7	1504.9	1361.3	1515.7	1388.9	1516	1414.7	1516	1430.4
GR	1514.1	1451.1	1508.3	1474.2	1508.2	1501.1	1510	1532.7	1509.8	1549.3
GR	1509.5	1593.2	1510	1641.7						

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X1	242	26	4927.4	5068	590	500	810			
X3	10									
GR	1520.1	4318.4	1514.8	4398.6	1515.8	4439.1	1512.6	4496.4	1511.8	4540.6
GR	1508.3	4576.1	1507.5	4730	1487.7	4927.4	1482	4982.6	1482	5000
GR	1482	5015.2	1486.8	5068	1486.8	5086.3	1486.3	5143.4	1485	5201.9
GR	1509.1	5848.2	1511.8	5861.4	1512.9	5875.2	1516.7	5882.6	1523.4	5914
GR	1529.8	5945.9	1535.7	5985.8	1541.6	6020	1543.8	6032.8	1543.5	6036.3
GR	1545.1	6049.6								
X1	244	25	545	790	310	410	460			
GR	1511	0	1511	41.4	1510.7	88.8	1510.5	148.6	1508.71	220
GR	1507.1	545	1488.07	560	1488.07	780	1508.7	790	1515.8	1361.3
GR	1526.6	1394.2	1537.3	1445.2	1547.3	1487.5	1553.7	1514.8	1553.4	1524.8
GR	1558.3	1542.4	1569.3	1587.7	1576.8	1633.9	1577	1691.9	1575.4	1745.6
GR	1569.8	1803.6	1559.9	1853.3	1547.3	1929.4	1542.4	1936.1	1543.2	1951.7
X1	246	27	850	1000	500	520	550			
GR	1515.6	0	1514.8	81.7	1514	164.9	1514	254.6	1514	339.3
GR	1513.4	402.3	1513.7	478.5	1514	539.6	1513.4	609	1512.9	685.8
GR	1512.9	755.4	1512.6	795.5	1513.13	850	1488.13	860	1488.13	990
GR	1513.1	1000	1519.9	1792.7	1520.9	1869.7	1522.3	1930.7	1523.1	2014.6
GR	1523.4	2045.3	1525	2109.4	1525	2180.3	1526.3	2245.5	1527.7	2250.4
GR	1535.2	2345.5	1535.4	2355.1						

X1	248	45	880.5	1125.4	490	530	531			
GR	1515.8	0	1515	137.1	1515	241.5	1515	343.8	1515	454.1
GR	1514.8	553.1	1514.8	659.9	1514.8	767.8	1514.5	880.5	1513.52	900
GR	1490.5	920	1490.52	1040	1513.5	1050	1515.6	1125.4	1515.8	1237.2
GR	1515.8	1308.4	1516.7	1375.3	1519.9	1401.8	1520.1	1415.8	1520.9	1455.8
GR	1520.7	1480.6	1519.1	1518.3	1518.5	1546.5	1519.1	1570.5	1520.9	1601.1
GR	1524.2	1639.6	1524.2	1659.3	1523.1	1672.4	1522.3	1683.4	1523.9	1694.7
GR	1526	1708.7	1525.5	1727.1	1523.8	1740.3	1524.2	1759.1	1525	1772.4
GR	1523.1	1787.9	1522.8	1807.8	1523.9	1823.8	1524.7	1845.7	1529.5	1909.7
GR	1529.3	1944.8	1531.1	1990	1532.2	2025.8	1533.8	2077.4	1535.2	2131.8
X1	250	33	4959.1	5032.9	580	584	834			
GR	1516.4	4281.1	1515.8	4303.5	1515.8	4362.1	1516.1	4431	1516.4	4529.9
GR	1516.1	4613.8	1516.9	4695.6	1516.4	4762.5	1503.8	4800.1	1503	4886.7
GR	1499.5	4900.8	1499.2	4959.1	1494.4	4973.8	1494.4	5000	1494.4	5012.6
GR	1497.6	5018.8	1500.3	5032.9	1499.7	5073.4	1498.7	5120.3	1516.1	5420.9
GR	1517.7	5433.1	1518.5	5492.2	1519.6	5560.8	1520.9	5656.7	1522.3	5756.6
GR	1523.1	5842.3	1523.6	5924.7	1525	6006.4	1526.3	6095.3	1528.2	6214
GR	1529.3	6281	1530.9	6364.1	1533.3	6457.1				
X1	252	33	709.3	1102.2	500	530	791			
X3	10									
GR	1518.5	0	1518.3	94.2	1518	185.2	1517.7	262.7	1507.5	292.7
GR	1506.5	356.1	1507	442.6	1506.7	518.2	1508.3	607.1	1508.6	709.3
GR	1506.5	778.5	1503.8	844.8	1501.9	1006.5	1502.7	1065.8	1508.6	1102.2
GR	1519.9	1169.5	1519.9	1274.5	1520.1	1349.4	1522	1441	1522.8	1525.2
GR	1524.2	1592.9	1526.3	1702.1	1527.4	1782.4	1529	1873.1	1530.6	1946.3
GR	1532	2036.1	1533.6	2127.4	1534.6	2145.9	1540.3	2179.5	1540.5	2212.5
GR	1540.2	2246.8	1541.1	2273.3	1541.3	2292.1				

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X1	254	47	4935.1	5175.5	490	380	628			
GR	1521.2	4360.8	1521.2	4464.8	1520.7	4577.9	1520.4	4663.6	1520.7	4766.5
GR	1520.4	4828.6	1508	4935.1	1502.2	4986.2	1502.2	5000	1502.2	5014.2
GR	1503	5018.9	1504.3	5059.1	1504.3	5123.6	1504.3	5151.8	1508.3	5175.5
GR	1504.6	5210	1505.4	5287.3	1520.1	5534.2	1520.1	5644.8	1519.9	5659.6
GR	1519.9	5691.2	1524.2	5715.7	1529.5	5761.9	1530.3	5780.2	1528.7	5813.6
GR	1528.2	5853.4	1531.7	5900	1532	5945.8	1533	5984.7	1530.6	6014.1
GR	1532.5	6044.2	1533.8	6083.4	1535.7	6145.3	1536.2	6183.2	1534.1	6213.4
GR	1532.2	6227.6	1533	6252.1	1532.3	6311.9	1532.8	6439.3	1534.6	6531.5
GR	1534.6	6574.9	1536	6599	1537.8	6631.8	1539.5	6659.4	1541.1	6685.9
GR	1541.6	6704.4	1541.3	6718.5						
X1	256	35	4888.9	5209.6	545	450	530			
GR	1522.5	4300.2	1523	4413.6	1522.2	4508.7	1522	4540	1507.9	4888.9
GR	1503.4	4997.8	1503.4	5000	1503.4	5002.3	1508.5	5209.6	1521.7	5328.9
GR	1521.2	5456.9	1520.9	5533.9	1526	5585.9	1532.4	5639	1535.4	5686.3
GR	1536.2	5766.6	1537.3	5876.5	1536.5	5901.6	1536.2	5916.9	1537.3	5932.1
GR	1537	5961.6	1536.2	5969.2	1533.5	6001	1536.7	6015.8	1535.3	6048
GR	1535.4	6078.6	1535.1	6083.6	1537.5	6096.3	1539.7	6131	1540.8	6187.2
GR	1541.6	6292.8	1540.8	6326.9	1535.7	6353.3	1526.3	6383.7	1516.9	6421.1
X1	258	33	4812.1	5036.8	370	457	435			
GR	1527.9	4195	1526.8	4258.2	1523.9	4327.2	1521.7	4446.7	1509.9	4812.1
GR	1504.2	4984.9	1504.2	5000	1504.2	5015.7	1510.1	5036.8	1528.2	5087.2
GR	1527.9	5210.9	1529.5	5309.8	1530.1	5360.9	1531.7	5514	1537.1	5567.6
GR	1537.1	5633.9	1537.1	5697.6	1538.2	5760.7	1548.4	5787.8	1549.2	5801.7
GR	1549.2	5822.4	1546.5	5841.5	1541.9	5867	1520.1	5922.2	1520.1	5956.7
GR	1519.8	6011.1	1519.8	6122	1520.4	6161.5	1519.6	6246.9	1518.5	6303.9
GR	1518.2	6511.8	1518.5	6534	1525.5	6637.9				
X1	260	34	530	889	335	450	410			
GR	1529	0	1524.7	108.2	1524.7	215.3	1524.1	321.5	1524.7	355.6
GR	1523.2	530	1512.67	620	1508.17	629	1509.25	870	1529.25	889
GR	1529.5	1033.4	1529.5	1135.7	1530.9	1202.3	1532.2	1229.7	1532.2	1268.1
GR	1529.3	1278.8	1529.3	1292.4	1528.2	1316.8	1527.9	1403.2	1524.1	1447.9
GR	1521.4	1492.8	1521.7	1582.4	1522.3	1685.4	1522.3	1790.1	1522.3	1815.9
GR	1523.6	1825.8	1522	1829.8	1524.7	1841.9	1522.3	1850.6	1522.5	1908.3
GR	1521.4	1966.6	1540.1	2000.1	1536.3	2062.9	1527.1	2102.9		
X1	262	36	350	870	350	410	390			
GR	1536.8	0	1535.7	29.6	1532	70.4	1530.1	102.4	1524.9	350
GR	1514.9	356	1519.07	670	1518.09	869	1525.59	870	1539	1183.3
GR	1541.1	1209.7	1542.2	1252.9	1542.5	1274.6	1539.5	1282.8	1539.5	1305.5
GR	1542.8	1312.2	1544.6	1344.8	1544.6	1354	1542.5	1372.7	1541.7	1415.8
GR	1541.7	1465.3	1539.8	1516.3	1537.3	1534.7	1528.5	1588.2	1525.5	1721.4
GR	1528.2	1729.8	1526	1739.4	1525.8	1748.1	1528.7	1755.5	1526.8	1766
GR	1527.6	1829.6	1528.2	1886	1536.5	1923.8	1546.5	1940	1547.9	1956.4
GR	1548.7	1987.2								

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X1	264	23	285.5	838	560	400	435			
GR	1533	0	1531.7	94.8	1530.1	176.9	1523	285.5	1520.9	316.1
GR	1520.9	363.1	1522.8	457.2	1522.5	530.4	1522.8	726.6	1522.5	782.4
GR	1522.8	838	1524.4	897.6	1526	948.7	1528.2	989.7	1528.5	1076.4
GR	1529.5	1757.3	1529.3	1787.6	1528.7	1810.7	1529.3	1833	1530.1	1845.1
GR	1530.1	1880.6	1547.6	1922.9	1546.4	1989.6				

X1	266	37	345	635	450	330	370			
GR	1535.7	0	1535.7	13.5	1536	24.3	1539.8	39.9	1543.8	65.9
GR	1544.1	104.3	1540.6	131	1536.3	159.6	1533	189.9	1531.2	249.2
GR	1528.7	310.9	1528.6	345	1523.6	351	1520.6	371	1521.03	621
GR	1524	635	1524.93	770	1530.67	850	1528.2	867.8	1526	1030.4
GR	1526	1111.8	1528.2	1187.9	1534.7	1209.8	1534.7	1233	1529.3	1262.7
GR	1533.8	1294.1	1534.7	1345.4	1535.5	1386.7	1534.4	1431	1534.4	1657.5
GR	1533.6	1709.9	1533.3	1752.6	1532.8	1787.1	1534.9	1800.7	1534.9	1827.1
GR	1548.1	1880.7	1548.7	1921.6						
X1	268	42	671.5	1031.1	380	350	490			
GR	1537.3	0	1534.4	13.9	1538.2	23.7	1539.8	31.5	1539.5	42.8
GR	1533.8	72.7	1532.5	84.4	1532.2	133	1532.2	208.6	1531.2	251.6
GR	1530.3	264.3	1527.7	671.5	1526.3	902.2	1526.3	967.3	1528.2	1031.1
GR	1528.2	1096.8	1528.2	1187.3	1536.3	1279.3	1536.3	1342.1	1532.8	1368.2
GR	1528.7	1387.7	1528.7	1415.9	1537.3	1435.9	1538.4	1454.4	1532.8	1472.2
GR	1532	1509.9	1534.7	1536.7	1538.4	1546.5	1537.9	1563.2	1536.5	1588.5
GR	1536.3	1605.2	1538.7	1635.1	1539.8	1654.1	1539.8	1675.2	1538.7	1699
GR	1536.3	1743.9	1536.5	1793.1	1536.3	1857.9	1541.9	1880.4	1541.9	1911.1
GR	1547.3	1940.5	1548.1	1990.7						

Telephone Line Road Crossing, Culverts assumed blocked

Telephone Line Road Crossing, Culverts assumed blocked

X1	270	17	700	1377	650	280	380			
GR	1544	0	1540	6	1536	101	1533.2	212	1532	381
GR	1532.9	530	1529.3	700	1527.05	875	1528.47	1297	1526.71	1377
GR	1531	1517	1528	1694	1528.7	1845	1536	1891	1536	2167
GR	1540	2185	1540	2385						
NC	0.035	0.035	0.035							
X1	272	12	0	2712	55	55	55			
X3	10			460	1545					
GR	1544	0	1540	46	1536	82	1536	421	1540	456
GR	1539.5	494	1539.4	1065	1539.3	1211	1539.45	1604	1537.6	3208
GR	1540	2372	1541	2712						
X1	274	18	876	1375	35	35	35			
X3	0			500	1545					
GR	1544	0	1540	67	1536	112	1536	408	1540	462
GR	1540	511	1533.5	530	1534.31	685	1532.3	876	1530.9	882.8
GR	1530.9	922.6	1532.5	930	1532.4	1330	1530.9	1333	1530.9	1373
GR	1531.4	1375	1531.8	1870	1544	1970				

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NC	0.045	0.045	0.045							
X1	276	14	938	1230	80	600	590			
X3	0			500	1545					
GR	1548	0	1540	75	1536	117	1536	403	1540	487
GR	1540	535	1533.7	555	1533.7	935	1530.9	940.6	1530.9	980.6
GR	1533.7	986.2	1536	1200	1540	1615	1544	1755		
X1	278	14	991	1039.4	280	600	450			
X3	0			375	1545					
GR	1546	0	1544	21	1544	171	1540	207	1536	287
GR	1540	346	1540	391	1533.3	421	1533	991	1532.9	995.2
GR	1532.9	1035.2	1533	1039.4	1540	1571	1544	1771		
X1	280	35	538	600	320	410	560			
X3	0					1590.7	1545			
GR	1548	0	1544	138	1543.2	192.7	1541.9	219	1541.9	252.1
GR	1541.3	336.6	1540.8	412.8	1539.6	452	1539.2	538	1536	548
GR	1536	598	1540	600	1540	600	1540	800	1540.7	1099.5
GR	1541.2	1153.4	1542	1206.5	1543.9	1508.8	1545	1590.7	1544.2	1623.7
GR	1541.6	1662.7	1541.8	1694	1545.8	1713	1547.4	1746.6	1547.4	1792.9
GR	1546.1	1836.3	1545.5	1882.3	1545.8	1931.1	1547.2	1982.4	1546.6	2036.6
GR	1546.9	2089.9	1548.2	2149.2	1548.8	2224.8	1550.9	2332.7	1551.7	2362.9
X1	282	19	831	901	363	330	590			
GR	1546.5	0	1546.2	38.1	1545.4	66.1	1545.1	139.2	1543.5	208
GR	1544	278.3	1544	353.3	1540.6	794	1540.07	831	1536.07	835.5
GR	1536.4	891	1541.25	901	1545.3	1490.7	1545.3	1583.8	1546.1	1648.9
GR	1546.9	1945.3	1550.4	1966.9	1555.8	1987.7	1557.4	2001.9		
X1	284	25	811	856	450	490	535			
GR	1552.1	0	1552.1	64.6	1550.8	121.7	1550	180.8	1548.3	247.3
GR	1547.3	335	1545.4	411.7	1544	489	1542.4	562.9	1543.92	811
GR	1537.9	814	1537.9	855	1543.5	858	1540	1018	1540.3	1136.8
GR	1540.6	1193	1542.1	1263.1	1542.4	1342.8	1544.1	1436.2	1544	1736
GR	1544.6	1811.9	1547.8	1842.1	1548.6	2023.3	1549.2	2128.1	1550.5	2208.5
X1	286	23	821	922	450	450	480			
GR	1555.1	0	1550.8	15.7	1549.7	75.1	1548.3	121.6	1548.1	184.6
GR	1547	252.6	1545.4	345.7	1548.05	821	1540.05	822	1540.69	921
GR	1548.7	922	1544.6	1017.3	1544.6	1071.2	1544.3	1131.1	1544.8	1199.2
GR	1545.1	1228.1	1544.6	1318.2	1544.3	1400.2	1545.1	1643	1548.9	1966.6
GR	1548.6	2155.4	1549.2	2210.9	1549.7	2274.7				
X1	288	25	638	728	530	520	580			
GR	1568.3	0	1568	40.9	1568.6	70.5	1568	102.6	1565.9	124.9

GR	1565.9	141.5	1568	159.3	1568.3	188.5	1568.6	214.2	1564.8	246.9
GR	1556.7	292.9	1554.3	339.7	1552.7	375.9	1552.1	428.8	1548.9	638
GR	1540.9	648	1540.8	718	1548.81	728	1548.82	805	1548.6	1123.1
GR	1549.4	1219.9	1549.4	1315.2	1549.4	1395.6	1548.3	1482.8	1560	2772.8

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X1	292	35	959	1031	700	690	835			
GR	1560.5	0	1560.2	45.7	1556.2	68.8	1556.2	121.4	1555.1	134.5
GR	1554.3	149.1	1554.6	161	1554.8	169.8	1556.4	185	1558.6	197.6
GR	1559.9	227.1	1560.2	257.9	1560.2	288.5	1560.2	326.2	1555.3	357.5
GR	1554.3	419	1554	478.7	1553.7	551.9	1554	663.7	1553.7	774.8
GR	1555.6	880.8	1550.72	959	1533.72	979	1550.4	1030	1560.4	1031
GR	1555.6	1103	1554.8	1304.6	1554.3	1421.1	1554	1502.8	1553.7	1686
GR	1554.6	1921.2	1554.3	1991.9	1556.2	2252.5	1557.2	2327.5	1560	2673
X1	294	34	873	1054.5	450	540	550			
X3	0			400	1565	1500	1565			
GR	1567.5	0	1568	15.4	1568	108	1566.9	132.8	1564.2	181.6
GR	1560.5	241.1	1560.2	295.4	1558.8	359.8	1557.8	422.4	1558	498.8
GR	1556	625.2	1558.3	758.8	1556	873	1548	910	1542	938
GR	1548	966	1556	1035	1558.8	1054.5	1558.3	1225.6	1559.1	1309.8
GR	1559.4	1442.2	1558.6	1567.8	1558.6	1708.7	1558.6	1839.9	1558	1980.4
GR	1557.5	2107.6	1558	2247.8	1559.4	2382.6	1561	2515.8	1561.8	2651.4
GR	1563.7	2738.8	1566.9	2749.2	1566.9	2761.1	1561.8	2780.5		
X1	296	29	984	1301	181	348	360			
X3	0			400	1565	1400	1565			
GR	1564	0	1560	43	1560	984	1556	1004	1554	1045
GR	1550	1240	1550	1261	1560	1301	1561.5	1329.3	1561.8	1356.1
GR	1561.3	1410.2	1561.3	1489.4	1559.7	1559	1559.7	1623.1	1561.5	1692.7
GR	1561.5	1774	1561	1875.8	1561	1974.4	1559.8	2062.6	1560.5	2121.1
GR	1560.7	2199.1	1560.5	2230.1	1563.2	2244.4	1563.4	2296.1	1561.8	2319.3
GR	1561.8	2408.5	1563.4	2476.8	1563.8	2555.5	1564.5	2644.3		
X1	298	15	810	1030	550	520	660			
GR	1568	0	1564	100	1564	200	1560	550	1560	580
GR	1560	810	1556	820	1552	840	1552	1000	1556	1010
GR	1560	1020	1564	1030	1564	1800	1568	2567	1570.9	2682
X1	300	45	4850.9	5070.9	580	410	540			
GR	1569.1	4005.1	1569.1	4019.2	1569.1	4066.7	1575.8	4094.3	1575.8	4104.1
GR	1568.6	4133.6	1569.1	4150.4	1571	4184.7	1567.2	4196.7	1567.2	4264.1
GR	1565.9	4399.7	1564.5	4420	1564.5	4438.9	1564.8	4454.7	1564	4499.5
GR	1563.7	4595	1564.8	4671.3	1565.6	4738.7	1565.9	4850.9	1564.5	4862.5
GR	1561.5	4880.6	1559.1	4899.3	1558.3	4913.5	1552.1	4972.2	1552.1	5000
GR	1552.1	5003	1552.4	5006.2	1566.9	5070.9	1567.5	5123.4	1567.5	5208.6
GR	1567.5	5342.1	1567.5	5475.6	1566.9	5607.3	1567.2	5742.2	1567.8	5891.8
GR	1569.1	6281.1	1570.2	6348.5	1570.7	6412.1	1570.7	6469.8	1570.7	6485.4
GR	1570.2	6511.9	1569.9	6579.8	1570.2	6670.9	1571.3	6749.8	1572.3	6821.4
X1	302	40	1149	1275	400	520	490			
GR	1579.7	0	1578.9	36.3	1573.7	66.9	1573.7	73.9	1574.6	83.6
GR	1573.2	99.6	1572.7	132.8	1575.9	165.8	1576.2	189.1	1579.7	210.7
GR	1579.4	237	1574.6	258.3	1575.6	276.7	1571.6	300.8	1571.6	327.6
GR	1579.4	373.7	1580.4	398.9	1567.5	454.1	1565.9	513.5	1566.4	595.6
GR	1566.1	708.8	1567.2	825	1567.2	925.6	1567.9	1000.7	1566.01	1149
GR	1562.2	1178	1559.57	1198	1559.57	1264	1571.14	1275	1570.2	1336.4
GR	1569.6	1392.3	1569.9	1632.2	1571.8	2302.6	1574	2389.9	1573.7	2490.8
GR	1574.8	2631.8	1576.1	2738.5	1576.7	2817.4	1577.2	2904.5	1575.8	3010.3

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X1	304	52	4858.5	5040.1	375	510	515			
GR	1582.9	3808.6	1581	3827.1	1576.7	3852.1	1576.2	3859.1	1580.2	3896.2
GR	1581	3899.7	1577.8	3915.5	1571.8	3952.6	1571.8	3996.6	1573.5	4021.8
GR	1573.5	4044	1575.6	4059.7	1575.1	4068.3	1571	4092.7	1569.7	4177.1
GR	1569.4	4248.7	1570.8	4310.5	1570.5	4358.7	1570	4423.8	1570	4489.9
GR	1569.7	4567.6	1570.5	4654.6	1570.2	4733.1	1570.8	4795.9	1570.5	4858.5
GR	1558.6	4994.9	1558.4	5000	1558.4	5002.4	1562.9	5016.1	1567.8	5028.8
GR	1571	5040.1	1571.6	5087.4	1571.8	5185.4	1574.3	5306.7	1574.3	5411.6
GR	1573.7	5513.7	1574.3	5595.2	1574.6	5688.8	1573.7	5760.6	1574.3	5847.6
GR	1574	5916.6	1574.6	6006.3	1575.4	6093.7	1574	6139.3	1572.9	6179.5
GR	1572.7	6228.3	1573.2	6276.8	1578.1	6688.4	1580	6727.8	1580	6772.8
GR	1578.9	6811.5	1578.9	6867.1						
X1	306	32	4977.6	5446.2	120	310	300			
GR	1576	3953.6	1572.9	4001.1	1571.8	4056	1570.8	4140.1	1570.5	4211.8
GR	1571.3	4260.6	1570.2	4318.1	1569.7	4387.1	1569.7	4444.3	1570.8	4516.5
GR	1571	4574.1	1571.3	4825.5	1571	4889.2	1571.26	4977.6	1561.1	4989.4
GR	1561.1	5000	1561.1	5008.1	1573.2	5446.2	1573.5	5488.4	1573.5	5580.9
GR	1574	5663.3	1574.6	5731.6	1574.8	5839.5	1575.1	5896.2	1577	5932.6
GR	1577.3	5991.8	1577	6065.5	1577.3	6152.9	1578.1	6262.6	1577.5	6377.5
GR	1577.3	6462.8	1578.1	6557.4						
X1	500	73	831.18	2037.04	720	320	450			
GR	1584	0	1580.03	66.39	1579.44	76.59	1578.33	97.42	1578.14	100.61
GR	1576	138.76	1575.97	142.33	1575.7	189.84	1575.66	199.64	1575.68	208.91
GR	1575.8	231.63	1575.8	233.25	1576	233.81	1576.5	265.46	1576.01	499.89

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 GR    1576    500.55    1576    500.66    1576    504.47    1576    691.46    1576.17    744.45
 GR    1576    750.64    1576    823.87  1576.32   827.63  1576.41   831.18    1576.37    838.4
 GR  1576.1    859.13  1575.26    935.4    1575    957.08  1573.72   1040.2    1573.09   1073.96
 GR    1572   1122.52  1571.57  1136.98  1571.34  1145.01    1572   1356.04       1572   1696.43
 GR    1573   1778.52  1574.56  1931.04    1576  2037.04    1576   2037.96       1576   2038.86
 GR    1576   2039.71    1576   2041.07    1576  2043.54    1576   2302.02    1576.28   2367.99
 GR  1576.2   2377.73  1576.22  2377.97  1576.2  2386.08  1576.25   2386.27    1576.25   2386.6
 GR  1576.3   2388.15  1576.28  2388.43  1576.3  2389.37  1576.31   2389.65    1576.79   2466.36
 GR  1576.8   2467.53  1577.03   2479.2    1577  2479.55   1577.1   2482.46    1577.2    2484.72
 GR  1577.3    2486.8  1577.34  2488.34  1577.4  2490.11  1577.44   2493.42    1577.48   2495.51
 GR  1577.5   2496.61  1577.54   2498.8  1578.3  2537.23  1578.55   2550.14    1579.03   2578.94
 GR  1582.2   2840.45  1582.67  2881.37    1584  2974.6

 X1      502       40   765.88  2023.48    1070    1030    1100
 GR     1588        0  1585.81    86.15  1585.8   86.72  1584.43    125.36    1584.4    125.67
 GR   1584.4   126.02  1584.52   128.28    1584  226.13  1583.91    227.74      1583    358.31
 GR   1576.9   360.44  1576.94   363.15  1577.1  363.36  1579.01    376.8       1580    382.02
 GR   1581.1   435.04  1581.51   502.94  1582.81  611.72    1584    681.12      1584    765.88
 GR   1581.9   976.42     1580  1301.59  1578.98 1353.15  1578.02   1396.91    1577.94   1601.56
 GR   1577.9  1673.16  1577.93  1717.58  1577.99 1734.46  1578.2    1758.1     1578.36   1776.09
 GR     1580  1959.41  1581.39  1999.83  1582.07 2023.48  1581.91   2030.16     1581.6   2090.89
 GR     1584  2320.86     1588  2447.13     1589 2471.74     1584   2485.69       1584   2576.14
1
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 X1      504       57  1198.02  2303.84     940     950     945
 GR     1596        0     1596        0    1596       0    1596          0       1596         0
 GR     1596        0     1596        0    1596       0    1596          0       1596         0
 GR     1596        0     1596        0    1592  280.82  1591.99     280.86    1590.35    288.93
 GR     1588   298.86     1588   319.84    1588  329.8   1589.21     350.89       1592    410.32
 GR     1592   569.79   1587.9   999.88  1587.91 1001.06  1587.91    1001.87     1587.9   1002.6
 GR   1587.9  1003.32  1586.25  1196.02  1584.6 1433.05  1584.14    1508.08       1584   1540.24
 GR   1583.7  1734.53     1584  1861.96    1584 2049.19     1584    2049.34       1584   2049.4
 GR     1584  2050.26   1584.2  2067.78  1584.5 2091.17  1586.04    2148.92    1587.26   2193.69
 GR   1587.4   2207.7  1587.21  2216.41  1587.2  2217   1587.35    2246.98    1587.29   2257.47
 GR   1587.4  2265.23     1588  2293.62  1588.01 2294.51   1588.1    2303.84    1588.23   2325.16
 GR   1588.3  2332.98  1584.94  2382.66    1584 2396.31     1584    2492.19    1585.55   2532.71
 GR   1590.7  2654.93     1592  2686.8

 X1      506       29   868.06  2237.4    1100    1100    1100
 GR     1600        0     1600        0  1597.78  397.49  1596.91     583.33    1596.28   725.21
 GR   1595.7   861.91   1595.7   868.06  1594.57 1168.93  1594.3     1249.12    1593.89   1347.2
 GR   1593.7   1505.1     1594  1578.46  1594.2 1602.04  1594.23    1689.59       1594  1748.89
 GR   1594.1  1798.59   1594.3  1933.39  1594.32 1967.15  1594.25    2030.42    1594.77   2145.2
 GR   1595.7  2215.05     1596  2226.98    1596  2230.5     1596    2231.8        1596   2237.4
 GR     1596  2249.09     1596  2253.07    1596 2690.54     1600      3190

 X1      508       54   451.07  2214.31     770     730     750
 GR     1604        0     1604        0  1602.55  130.97  1601.56     216.82    1600.88   277.47
 GR     1600   359.73  1599.61   451.07  1598.72  663.29   1598.3     758.73    1597.87   856.69
 GR   1597.6   932.26  1597.38   986.77  1597.31 1009.45  1597.11    1124.01     1597.1  1138.06
 GR   1597.2  1192.32  1597.35  1239.14   1597.6 1290.42  1598.14    1350.38    1599.47  1447.27
 GR   1599.6   1456.2  1600.12  1587.21     1600  1631.1     1600    1682.12       1600  1684.17
 GR     1600  1685.25     1600  1687.49  1599.74 1701.62  1599.74    1719.27    1599.63  1781.19
 GR   1600.1  1832.85   1600.1  1833.37   1601.1 1926.86  1601.48    1966.72    1602.15  2044.57
 GR   1602.3  2059.23   1603.2  2145.87     1604 2214.31     1604    2217.28       1604  2217.61
 GR     1604  2238.54     1604  2311.79     1604 2330.91     1604    2402.37       1604  2418.89
 GR     1604  2433.46     1604  2442.72     1604  2449.4  1602.16    2476.33       1600  2505.67
 GR   1601.5  2599.63  1602.44  2687.62   1602.4 2687.67  1602.47    2692.33

 NC    0.022     0.022    0.022      0.3      0.5
 X1      510         7        0     4461     1150     570     840
 GR     1616         0     1612     1150   1611.4    2060  1611.4       2535       1612       3351
 GR   1611.4      3393     1616     4461
1
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 T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Lake Las Vegas to Duck Creek
 T2      Nolte and Associates, Jan 1998
 T3      Boundary condition: Lake Las Vegas weir elev. = 1417

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                  3                             -1                            8500      1417

 J2  NPROF      IPLOT     PREVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

       2                   -1                                                -6

1
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 T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Lake Las Vegas to Duck Creek
 T2      Nolte and Associates, Jan 1998
 T3      Boundary condition: Lake Las Vegas weir elev. = 1417

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                  4                             -1                            11500     1417
```

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3		-1					-6		

1

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T1 LAS VEGAS WASH, CLARK COUNTY, NEVADA - Lake Las Vegas to Duck Creek
T2 Nolte and Associates, Jan 1998
T3 Boundary condition: Lake Las Vegas weir elev. = 1417

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		5			- 1			24000	1417	

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15		-1					-6		

1

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THIS RUN EXECUTED 22JAN99 07:17:43

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Boundary condition: Lake

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	100.000	.00	.00	.00	1417.00	3000.00	1418.63	1418.63	1419.45	113.86	7.25	413.89	281.15
*	100.000	.00	.00	.00	1417.00	8500.00	1420.25	1420.25	1421.90	92.52	10.29	826.35	883.70
*	100.000	.00	.00	.00	1417.00	11500.00	1420.98	1420.98	1422.99	87.16	11.38	1010.80	1231.80
*	100.000	.00	.00	.00	1417.00	24000.00	1423.49	1423.49	1426.78	76.00	14.54	1650.16	2752.99
*	105.000	1.00	.00	.00	1406.00	3000.00	1419.51	.00	1419.53	.12	.93	3280.43	8597.21
*	105.000	1.00	.00	.00	1406.00	8500.00	1421.98	.00	1422.05	.55	2.21	3907.27	11416.81
*	105.000	1.00	.00	.00	1406.00	11500.00	1423.06	.00	1423.18	.81	2.80	4182.36	12746.14
*	105.000	1.00	.00	.00	1406.00	24000.00	1426.73	.00	1427.07	1.85	4.77	5113.09	17630.48
*	202.000	225.00	.00	.00	1416.20	3000.00	1419.50	.00	1419.54	2.43	1.67	1794.08	1925.62
*	202.000	225.00	.00	.00	1416.20	8500.00	1421.98	.00	1422.09	2.94	2.66	3189.82	4957.07
*	202.000	225.00	.00	.00	1416.20	11500.00	1423.08	.00	1423.22	3.01	3.02	3811.87	6631.63
	202.000	225.00	.00	.00	1416.20	24000.00	1426.89	.00	1427.14	2.90	3.98	6081.02	14082.33
*	204.000	524.00	.00	.00	1412.40	3000.00	1419.58	.00	1419.61	.77	1.29	2321.25	3409.30
	204.000	524.00	.00	.00	1412.40	8500.00	1422.11	.00	1422.20	1.70	2.45	3463.13	6514.26
	204.000	524.00	.00	.00	1412.40	11500.00	1423.21	.00	1423.34	1.99	2.90	3970.36	8152.63
	204.000	524.00	.00	.00	1412.40	24000.00	1427.01	.00	1427.29	2.60	4.19	5750.06	14894.77
*	206.000	410.00	.00	.00	1414.00	3000.00	1419.52	.00	1419.75	11.49	3.84	781.84	885.12
*	206.000	410.00	.00	.00	1414.00	8500.00	1421.92	.00	1422.52	17.56	6.21	1368.03	2028.14
*	206.000	410.00	.00	.00	1414.00	11500.00	1422.96	.00	1423.72	18.51	6.97	1650.93	2672.69
*	206.000	410.00	.00	.00	1414.00	24000.00	1426.61	.00	1427.78	18.83	8.67	2767.94	5530.53
*	208.000	443.00	.00	.00	1419.40	3000.00	1423.86	1423.86	1425.00	106.58	8.60	349.03	290.59
*	208.000	443.00	.00	.00	1419.40	8500.00	1426.02	1426.02	1428.06	89.38	11.47	741.24	899.06
*	208.000	443.00	.00	.00	1419.40	11500.00	1426.92	1426.92	1429.40	83.83	12.64	909.58	1256.02
*	208.000	443.00	.00	.00	1419.40	24000.00	1430.00	1430.00	1434.01	73.19	16.07	1493.24	2805.33
*	210.000	369.00	.00	.00	1414.40	3000.00	1425.16	.00	1425.18	.53	1.25	2396.54	4132.90
*	210.000	369.00	.00	.00	1414.40	8500.00	1428.33	.00	1428.43	1.52	2.59	3285.46	6890.07
*	210.000	369.00	.00	.00	1414.40	11500.00	1429.70	.00	1429.85	1.95	3.13	3669.96	8234.24
*	210.000	369.00	.00	.00	1414.40	24000.00	1434.34	.00	1434.70	3.20	4.82	4976.55	13406.20

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	212.000	471.00	.00	.00	1417.30	3000.00	1425.18	.00	1425.24	2.15	1.99	1509.31	2047.72
*	212.000	471.00	.00	.00	1417.30	8500.00	1428.37	.00	1428.58	4.15	3.63	2339.19	4171.56
*	212.000	471.00	.00	.00	1417.30	11500.00	1429.74	.00	1430.03	4.79	4.26	2699.72	5255.73
	212.000	471.00	.00	.00	1417.30	24000.00	1434.39	.00	1434.97	6.25	6.10	3935.81	9598.84

*	214.000	590.00	.00	.00	1423.00	3000.00	1425.32	1425.32	1426.42	140.76	8.42	356.10	252.86
*	214.000	590.00	.00	.00	1423.00	8500.00	1427.85	.00	1429.75	91.33	11.08	767.08	889.45
*	214.000	590.00	.00	.00	1423.00	11500.00	1429.18	.00	1431.30	74.34	11.68	984.58	1333.80
*	214.000	590.00	.00	.00	1423.00	24000.00	1433.43	.00	1436.57	57.54	14.23	1686.84	3163.94
*	216.000	560.00	.00	.00	1421.20	3000.00	1428.09	.00	1428.29	14.25	4.21	955.36	794.75
*	216.000	560.00	.00	.00	1421.20	8500.00	1431.16	.00	1431.48	14.34	5.51	1977.23	2244.89
*	216.000	560.00	.00	.00	1421.20	11500.00	1432.51	.00	1432.89	13.57	5.87	2457.40	3122.39
*	216.000	560.00	.00	.00	1421.20	24000.00	1437.42	.00	1437.94	10.71	6.70	4228.28	7332.11
*	218.000	830.00	.00	.00	1434.60	3000.00	1439.86	1439.86	1441.22	230.08	9.34	321.27	197.78
*	218.000	830.00	.00	.00	1434.60	8500.00	1442.58	1442.58	1444.64	200.33	11.50	738.98	600.54
*	218.000	830.00	.00	.00	1434.60	11500.00	1443.61	1443.61	1445.93	192.46	12.22	941.06	828.95
*	218.000	830.00	.00	.00	1434.60	24000.00	1446.69	1446.69	1449.80	174.52	14.16	1695.06	1816.72
*	220.000	738.00	.00	.00	1438.20	3000.00	1443.26	.00	1443.35	9.92	2.40	1250.97	952.45
*	220.000	738.00	.00	.00	1438.20	8500.00	1446.50	.00	1446.70	9.41	3.55	2391.66	2770.96
*	220.000	738.00	.00	.00	1438.20	11500.00	1447.79	.00	1448.04	9.70	4.04	2849.10	3691.60
*	220.000	738.00	.00	.00	1438.20	24000.00	1451.73	.00	1452.22	11.57	5.66	4239.05	7055.96
*	222.000	511.00	.00	.00	1445.90	3000.00	1449.86	1449.86	1450.87	247.00	8.09	370.64	190.88
*	222.000	511.00	.00	.00	1445.90	8500.00	1451.90	1451.90	1453.44	213.98	9.95	854.17	581.07
*	222.000	511.00	.00	.00	1445.90	11500.00	1452.57	1452.57	1454.45	204.87	11.00	1045.71	803.45
*	222.000	511.00	.00	.00	1445.90	24000.00	1454.88	1454.88	1457.92	174.79	13.98	1716.27	1815.32
*	224.000	507.00	.00	.00	1439.47	3000.00	1451.27	.00	1451.31	2.02	1.61	1865.21	2111.89
*	224.000	507.00	.00	.00	1439.47	8500.00	1454.18	.00	1454.33	4.91	3.16	2689.79	3835.15
*	224.000	507.00	.00	.00	1439.47	11500.00	1455.30	.00	1455.53	6.24	3.82	3010.66	4603.70
*	224.000	507.00	.00	.00	1439.47	24000.00	1458.98	.00	1459.52	10.32	5.90	4066.20	7471.68
*	226.000	796.00	.00	.00	1450.65	3000.00	1454.01	1454.01	1454.86	252.79	7.37	406.80	188.69
*	226.000	796.00	.00	.00	1450.65	8500.00	1455.73	1455.73	1457.03	225.82	9.17	926.79	565.64
*	226.000	796.00	.00	.00	1450.65	11500.00	1456.40	1456.40	1457.85	213.72	9.69	1186.89	786.65
*	226.000	796.00	.00	.00	1450.65	24000.00	1460.38	.00	1461.31	56.50	8.54	2808.75	3192.86
*	228.000	615.00	.00	.00	1462.70	3000.00	1464.40	.00	1464.78	110.93	4.92	610.09	284.84
*	228.000	615.00	.00	.00	1462.70	8500.00	1465.64	.00	1466.50	110.70	7.44	1143.15	807.87
	228.000	615.00	.00	.00	1462.70	11500.00	1466.14	.00	1467.25	113.93	8.46	1360.05	1079.41
*	228.000	615.00	.00	.00	1462.70	24000.00	1467.58	1467.58	1469.86	143.20	12.12	1980.09	2005.54
*	230.000	513.00	.00	.00	1460.47	3000.00	1465.36	.00	1465.43	4.36	2.18	1373.34	1437.53
*	230.000	513.00	.00	.00	1460.47	8500.00	1467.52	.00	1467.81	10.41	4.28	1987.88	2634.80
*	230.000	513.00	.00	.00	1460.47	11500.00	1468.40	.00	1468.81	12.96	5.14	2236.78	3193.86
*	230.000	513.00	.00	.00	1460.47	24000.00	1471.25	.00	1472.21	20.55	7.86	3053.67	5293.92

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	ES	10*KS	VCH	AREA	.01K
*	232.000	470.00	.00	.00	1451.60	3000.00	1465.49	.00	1465.55	1.71	2.02	1467.44	2292.98
	232.000	470.00	.00	.00	1451.60	8500.00	1467.90	.00	1468.21	7.02	4.46	1907.01	3208.75
	232.000	470.00	.00	.00	1451.60	11500.00	1468.99	.00	1469.36	9.99	5.49	2093.00	3637.96
	232.000	470.00	.00	.00	1451.60	24000.00	1472.06	.00	1473.25	21.00	8.75	2743.95	5237.80
*	234.000	431.00	.00	.00	1465.22	3000.00	1470.80	1470.80	1472.24	179.25	9.62	311.84	224.05
*	234.000	431.00	.00	.00	1465.22	8500.00	1473.68	1473.68	1475.86	156.03	11.85	717.37	680.47
*	234.000	431.00	.00	.00	1465.22	11500.00	1474.81	1474.81	1477.23	146.26	12.47	922.00	950.89
*	234.000	431.00	.00	.00	1465.22	24000.00	1477.80	1477.80	1481.69	131.60	15.84	1515.23	2092.06
*	236.000	577.00	.00	.00	1464.51	3000.00	1472.85	.00	1472.93	3.07	2.22	1350.62	1712.16
*	236.000	577.00	.00	.00	1464.51	8500.00	1476.72	.00	1476.96	5.52	3.96	2148.36	3618.08
*	236.000	577.00	.00	.00	1464.51	11500.00	1478.14	.00	1478.48	6.67	4.70	2446.36	4451.70
*	236.000	577.00	.00	.00	1464.51	24000.00	1482.68	.00	1483.45	10.25	7.06	3401.44	7496.27
*	238.000	693.00	.00	.00	1474.43	3000.00	1476.83	1476.83	1477.43	221.06	6.22	482.27	201.78
*	238.000	693.00	.00	.00	1474.43	8500.00	1478.05	1478.05	1478.98	198.39	7.75	1096.81	603.47
*	238.000	693.00	.00	.00	1474.43	11500.00	1479.08	.00	1479.71	88.90	6.37	1804.47	1219.70
	238.000	693.00	.00	.00	1474.43	24000.00	1483.90	.00	1484.22	10.58	4.49	5343.69	7379.12
*	240.000	455.00	.00	.00	1476.92	3000.00	1479.55	.00	1479.67	20.46	2.74	1094.17	663.16
*	240.000	455.00	.00	.00	1476.92	8500.00	1481.18	.00	1481.48	24.37	4.37	1945.43	1721.83
*	240.000	455.00	.00	.00	1476.92	11500.00	1481.57	.00	1482.01	32.24	5.36	2145.99	2025.35
*	240.000	455.00	.00	.00	1476.92	24000.00	1484.35	.00	1485.04	25.06	6.64	3617.13	4793.85
*	242.000	810.00	.00	.00	1482.00	3000.00	1486.21	1486.21	1487.57	172.01	9.37	320.12	228.74
*	242.000	810.00	.00	.00	1482.00	8500.00	1488.21	1488.21	1489.60	120.14	10.55	997.27	775.48
*	242.000	810.00	.00	.00	1482.00	11500.00	1488.91	1488.91	1490.48	113.64	11.38	1262.98	1078.80
*	242.000	810.00	.00	.00	1482.00	24000.00	1490.95	1490.95	1493.29	113.10	14.32	2137.13	2256.74
*	244.000	460.00	.00	.00	1488.07	3000.00	1490.87	.00	1491.24	43.91	4.82	621.87	452.75
	244.000	460.00	.00	.00	1488.07	8500.00	1492.63	.00	1493.72	70.10	8.36	1016.94	1015.20
	244.000	460.00	.00	.00	1488.07	11500.00	1493.30	.00	1494.81	81.50	9.84	1168.50	1273.83
	244.000	460.00	.00	.00	1488.07	24000.00	1496.42	.00	1498.71	115.60	14.54	1650.15	2232.19
	246.000	550.00	.00	.00	1488.13	3000.00	1492.68	.00	1493.07	25.96	5.00	600.10	588.85
	246.000	550.00	.00	.00	1488.13	8500.00	1495.53	.00	1496.69	42.33	8.63	984.82	1306.47
	246.000	550.00	.00	.00	1488.13	11500.00	1496.66	.00	1498.24	46.83	10.10	1138.63	1645.75
	246.000	550.00	.00	.00	1488.13	24000.00	1500.20	.00	1503.57	69.12	14.75	1627.45	2886.82
	248.000	531.00	.00	.00	1490.50	3000.00	1494.39	.00	1495.01	50.70	6.30	475.92	421.33

	248.000	531.00	.00	.00	1490.50	8500.00	1497.84	.00	1499.18	50.17	9.30	914.31	1200.01
	248.000	531.00	.00	.00	1490.50	11500.00	1499.24	.00	1500.95	51.63	10.48	1097.37	1600.48
	248.000	531.00	.00	.00	1490.50	24000.00	1503.87	.00	1506.89	55.72	13.96	1719.36	3215.17
*	250.000	834.00	.00	.00	1494.40	3000.00	1500.11	1500.11	1501.19	82.04	8.74	421.90	331.22
	250.000	834.00	.00	.00	1494.40	8500.00	1502.52	.00	1503.83	70.40	10.84	1076.95	1013.07
	250.000	834.00	.00	.00	1494.40	11500.00	1503.86	.00	1505.01	51.70	10.50	1534.29	1599.34
*	250.000	834.00	.00	.00	1494.40	24000.00	1508.75	.00	1509.50	20.26	9.03	3773.63	5331.49

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	252.000	791.00	.00	.00	1501.90	3000.00	1505.50	.00	1505.81	43.52	4.42	678.88	454.76
	252.000	791.00	.00	.00	1501.90	8500.00	1507.61	.00	1508.23	49.53	6.35	1339.61	1207.77
	252.000	791.00	.00	.00	1501.90	11500.00	1508.22	.00	1509.05	58.88	7.35	1565.65	1498.65
	252.000	791.00	.00	.00	1501.90	24000.00	1510.52	.00	1511.24	34.70	7.44	3798.56	4074.03
*	254.000	628.00	.00	.00	1502.20	3000.00	1507.28	.00	1507.44	18.01	3.41	965.81	706.83
*	254.000	628.00	.00	.00	1502.20	8500.00	1509.65	.00	1509.98	18.72	4.92	1924.97	1964.50
*	254.000	628.00	.00	.00	1502.20	11500.00	1510.55	.00	1510.96	19.45	5.56	2325.75	2607.75
	254.000	628.00	.00	.00	1502.20	24000.00	1512.31	.00	1513.28	33.74	8.63	3176.78	4131.85
	256.000	530.00	.00	.00	1503.40	3000.00	1508.38	.00	1508.59	26.68	3.64	827.35	580.78
	256.000	530.00	.00	.00	1503.40	8500.00	1510.69	.00	1511.12	24.57	5.29	1680.06	1714.90
	256.000	530.00	.00	.00	1503.40	11500.00	1511.60	.00	1512.12	24.46	5.92	2068.78	2325.36
	256.000	530.00	.00	.00	1503.40	24000.00	1513.96	.00	1514.96	30.76	8.34	3200.48	4327.10
	258.000	435.00	.00	.00	1504.20	3000.00	1509.60	.00	1509.92	33.51	4.55	659.63	518.21
	258.000	435.00	.00	.00	1504.20	8500.00	1511.81	.00	1512.62	43.07	7.25	1216.38	1295.23
	258.000	435.00	.00	.00	1504.20	11500.00	1512.66	.00	1513.69	45.98	8.29	1472.50	1695.87
	258.000	435.00	.00	.00	1504.20	24000.00	1515.07	.00	1517.00	57.43	11.60	2338.35	3166.88
	260.000	410.00	.00	.00	1508.17	3000.00	1511.24	.00	1511.60	50.66	4.84	620.12	421.48
	260.000	410.00	.00	.00	1508.17	8500.00	1513.67	.00	1514.40	43.86	6.86	1236.33	1283.42
	260.000	410.00	.00	.00	1508.17	11500.00	1514.64	.00	1515.56	44.59	7.67	1498.65	1722.18
	260.000	410.00	.00	.00	1508.17	24000.00	1517.59	.00	1519.22	50.31	10.25	2340.36	3383.59
*	262.000	390.00	.00	.00	1514.90	3000.00	1518.27	1518.27	1519.01	206.72	6.93	433.15	208.65
*	262.000	390.00	.00	.00	1514.90	8500.00	1519.68	1519.68	1520.66	173.43	7.93	1072.52	645.43
*	262.000	390.00	.00	.00	1514.90	11500.00	1520.09	1520.09	1521.34	173.73	8.94	1286.01	872.49
*	262.000	390.00	.00	.00	1514.90	24000.00	1521.62	1521.62	1523.70	154.38	11.56	2077.01	1931.59
*	264.000	435.00	.00	.00	1520.90	3000.00	1523.72	.00	1523.95	70.48	3.88	785.23	357.34
*	264.000	435.00	.00	.00	1520.90	8500.00	1524.85	.00	1525.37	72.87	5.87	1496.81	995.73
*	264.000	435.00	.00	.00	1520.90	11500.00	1525.35	.00	1525.99	70.95	6.54	1830.87	1365.29
*	264.000	435.00	.00	.00	1520.90	24000.00	1526.99	.00	1528.04	67.13	8.49	2998.91	2929.17
*	266.000	370.00	.00	.00	1520.60	3000.00	1524.65	.00	1524.78	10.63	2.87	1072.37	920.12
*	266.000	370.00	.00	.00	1520.60	8500.00	1526.32	.00	1526.71	21.45	5.20	1811.23	1838.38
*	266.000	370.00	.00	.00	1520.60	11500.00	1526.94	.00	1527.45	25.09	6.05	2185.94	2296.02
*	266.000	370.00	.00	.00	1520.60	24000.00	1528.84	.00	1529.78	33.04	8.31	3596.41	4175.04
*	268.000	490.00	.00	.00	1526.30	3000.00	1528.26	1528.26	1528.83	172.88	6.00	528.66	228.17
*	268.000	490.00	.00	.00	1526.30	8500.00	1529.36	1529.36	1530.18	136.37	7.87	1303.75	727.88
*	268.000	490.00	.00	.00	1526.30	11500.00	1529.76	1529.76	1530.71	132.66	8.59	1647.55	998.46
*	268.000	490.00	.00	.00	1526.30	24000.00	1531.10	.00	1532.32	109.93	10.11	2955.01	2289.06
*	270.000	380.00	.00	.00	1527.05	3000.00	1529.89	.00	1529.94	11.21	1.92	1694.75	895.89
*	270.000	380.00	.00	.00	1527.05	8500.00	1531.26	.00	1531.37	12.60	2.92	3285.18	2394.71
*	270.000	380.00	.00	.00	1527.05	11500.00	1531.79	.00	1531.94	13.03	3.28	3962.88	3185.80
*	270.000	380.00	.00	.00	1527.05	24000.00	1533.40	.00	1533.65	14.70	4.40	6365.77	6260.09

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	272.000	55.00	.00	.00	1537.60	3000.00	1539.47	1539.47	1539.71	245.69	3.92	764.81	191.39
*	272.000	55.00	.00	.00	1537.60	8500.00	1539.92	1539.92	1540.36	195.39	5.29	1605.33	608.09
*	272.000	55.00	.00	.00	1537.60	11500.00	1540.11	1540.11	1540.64	189.97	5.87	1958.56	834.37
*	272.000	55.00	.00	.00	1537.60	24000.00	1540.79	1540.79	1541.58	157.21	7.12	3372.60	1914.15
*	274.000	35.00	.00	.00	1530.90	3000.00	1539.74	.00	1539.74	.03	.30	10248.98	16456.96
*	274.000	35.00	.00	.00	1530.90	8500.00	1540.39	.00	1540.40	.20	.77	11194.57	18985.10
*	274.000	35.00	.00	.00	1530.90	11500.00	1540.68	.00	1540.70	.33	1.01	11610.24	20138.47
*	274.000	35.00	.00	.00	1530.90	24000.00	1541.61	.00	1541.66	1.00	1.89	12950.54	24036.30
*	276.000	590.00	.00	.00	1530.90	3000.00	1539.73	.00	1539.74	.45	.70	4557.28	4448.62
*	276.000	590.00	.00	.00	1530.90	8500.00	1540.39	.00	1540.43	2.40	1.73	5286.20	5483.72
*	276.000	590.00	.00	.00	1530.90	11500.00	1540.67	.00	1540.75	3.73	2.22	5598.43	5957.48
*	276.000	590.00	.00	.00	1530.90	24000.00	1541.59	.00	1541.81	9.80	3.93	6650.96	7667.90
	278.000	450.00	.00	.00	1532.90	3000.00	1539.75	.00	1539.75	.24	.58	5945.32	6161.75
	278.000	450.00	.00	.00	1532.90	8500.00	1540.47	.00	1540.50	1.26	1.43	6814.09	7564.88
	278.000	450.00	.00	.00	1532.90	11500.00	1540.80	.00	1540.85	1.93	1.82	7222.70	8270.28
*	278.000	450.00	.00	.00	1532.90	24000.00	1541.94	.00	1542.07	4.84	3.15	8663.43	10908.54
*	280.000	560.00	.00	.00	1536.00	3000.00	1540.88	1540.88	1541.34	57.26	6.65	770.77	396.45
*	280.000	560.00	.00	.00	1536.00	8500.00	1541.78	1541.78	1542.53	95.81	9.71	1517.73	868.39

*	280.000	560.00	.00	.00	1536.00	11500.00	1542.19	1542.19	1542.98	96.21	10.21	1920.51	1172.40
*	280.000	560.00	.00	.00	1536.00	24000.00	1543.29	1543.29	1544.38	110.83	12.30	3157.66	2279.76
*	282.000	590.00	.00	.00	1536.07	3000.00	1542.75	.00	1543.03	21.27	4.92	972.50	650.47
*	282.000	590.00	.00	.00	1536.07	8500.00	1544.34	.00	1544.70	28.54	6.67	2359.80	1590.98
*	282.000	590.00	.00	.00	1536.07	11500.00	1544.80	.00	1545.20	31.39	7.27	2926.85	2052.75
*	282.000	590.00	.00	.00	1536.07	24000.00	1546.22	.00	1546.69	33.81	8.41	5033.72	4127.43
*	284.000	535.00	.00	.00	1537.90	3000.00	1543.64	.00	1543.70	8.72	2.73	1623.21	1016.04
*	284.000	535.00	.00	.00	1537.90	8500.00	1545.36	.00	1545.45	9.07	3.35	3784.71	2822.07
*	284.000	535.00	.00	.00	1537.90	11500.00	1545.91	.00	1546.02	9.87	3.67	4556.95	3660.55
*	284.000	535.00	.00	.00	1537.90	24000.00	1547.47	.00	1547.67	12.91	4.75	6854.02	6678.73
*	286.000	480.00	.00	.00	1540.05	3000.00	1543.94	.00	1545.05	130.90	8.45	355.09	262.21
*	286.000	480.00	.00	.00	1540.05	8500.00	1546.15	1546.15	1546.85	71.35	8.38	1651.97	1006.31
*	286.000	480.00	.00	.00	1540.05	11500.00	1546.53	1546.53	1547.30	78.11	9.12	2077.23	1301.22
*	286.000	480.00	.00	.00	1540.05	24000.00	1548.26	.00	1548.81	49.73	8.42	4604.55	3403.18
*	288.000	580.00	.00	.00	1540.80	3000.00	1547.64	.00	1548.13	27.81	5.63	532.98	568.85
	288.000	580.00	.00	.00	1540.80	8500.00	1549.56	1548.17	1550.98	68.09	10.31	1277.90	1030.07
*	288.000	580.00	.00	.00	1540.80	11500.00	1550.44	1550.44	1551.34	47.92	9.29	2249.16	1661.31
*	288.000	580.00	.00	.00	1540.80	24000.00	1551.64	1551.64	1552.76	63.98	11.69	3788.15	3000.51
	292.000	835.00	.00	.00	1533.72	3000.00	1549.66	.00	1550.14	20.97	5.58	537.69	655.12
	292.000	835.00	.00	.00	1533.72	8500.00	1553.84	1549.50	1555.33	41.77	9.91	933.04	1315.26
	292.000	835.00	.00	.00	1533.72	11500.00	1553.96	1551.49	1556.58	73.46	13.21	988.97	1341.72
*	292.000	835.00	.00	.00	1533.72	24000.00	1556.34	1556.34	1557.41	44.49	11.41	4497.17	3596.15

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	294.000	550.00	.00	.00	1542.00	3000.00	1551.35	.00	1552.10	65.55	6.97	430.45	370.53
	294.000	550.00	.00	.00	1542.00	8500.00	1556.74	.00	1557.57	37.67	7.30	1175.23	1384.90
*	294.000	550.00	.00	.00	1542.00	11500.00	1558.47	.00	1559.31	32.18	7.51	1776.34	2027.12
*	294.000	550.00	.00	.00	1542.00	24000.00	1559.87	1559.87	1561.40	56.85	11.01	3125.37	3185.04
	296.000	360.00	.00	.00	1550.00	3000.00	1554.29	.00	1554.71	78.26	5.23	573.77	339.12
	296.000	360.00	.00	.00	1550.00	8500.00	1558.28	.00	1558.67	23.81	5.05	1681.90	1741.98
	296.000	360.00	.00	.00	1550.00	11500.00	1559.80	.00	1560.25	20.32	5.34	2153.33	2551.07
*	296.000	360.00	.00	.00	1550.00	24000.00	1561.99	.00	1562.72	26.37	7.30	4072.97	4673.21
*	298.000	660.00	.00	.00	1552.00	3000.00	1556.66	.00	1556.86	17.50	3.62	827.60	717.04
	298.000	660.00	.00	.00	1552.00	8500.00	1559.76	.00	1560.30	24.15	5.86	1450.54	1729.54
	298.000	660.00	.00	.00	1552.00	11500.00	1561.11	.00	1561.70	22.69	6.31	2077.83	2414.41
	298.000	660.00	.00	.00	1552.00	24000.00	1563.63	.00	1564.48	27.56	8.18	3801.11	4571.55
*	300.000	540.00	.00	.00	1552.10	3000.00	1558.00	.00	1558.74	74.33	6.88	435.77	347.96
*	300.000	540.00	.00	.00	1552.10	8500.00	1561.36	.00	1562.72	80.72	9.26	917.64	946.06
*	300.000	540.00	.00	.00	1552.10	11500.00	1562.50	.00	1564.17	86.54	10.38	1108.25	1236.19
*	300.000	540.00	.00	.00	1552.10	24000.00	1565.96	1565.96	1568.09	82.98	12.21	2324.32	2634.69
*	302.000	490.00	.00	.00	1559.57	3000.00	1563.53	1563.53	1565.13	207.04	10.15	295.44	209.50
*	302.000	490.00	.00	.00	1559.57	8500.00	1567.71	1567.71	1568.67	62.01	8.77	1413.58	1079.39
*	302.000	490.00	.00	.00	1559.57	11500.00	1568.29	1568.29	1569.29	62.59	9.28	1885.01	1453.60
	302.000	490.00	.00	.00	1559.57	24000.00	1570.27	.00	1571.16	50.99	9.73	3684.68	3361.00
*	304.000	515.00	.00	.00	1558.40	3000.00	1567.64	.00	1567.96	23.40	4.52	663.28	620.15
	304.000	515.00	.00	.00	1558.40	8500.00	1570.47	.00	1571.27	44.08	7.32	1360.95	1280.19
	304.000	515.00	.00	.00	1558.40	11500.00	1571.04	1568.95	1571.97	50.95	8.28	1858.82	1611.13
	304.000	515.00	.00	.00	1558.40	24000.00	1572.57	.00	1573.71	58.95	10.22	3515.07	3125.86
*	306.000	300.00	.00	.00	1561.10	3000.00	1568.33	.00	1568.45	11.17	2.70	1113.17	897.46
*	306.000	300.00	.00	.00	1561.10	8500.00	1571.71	.00	1571.86	10.21	3.29	3125.25	2659.63
*	306.000	300.00	.00	.00	1561.10	11500.00	1572.44	.00	1572.60	10.74	3.52	4101.58	3508.95
*	306.000	300.00	.00	.00	1561.10	24000.00	1574.14	.00	1574.38	13.48	4.52	6693.56	6536.85
*	500.000	450.00	.00	.00	1571.34	3000.00	1572.79	1572.79	1573.22	322.42	5.29	567.27	167.07
*	500.000	450.00	.00	.00	1571.34	8500.00	1573.66	1573.66	1574.43	263.57	7.05	1205.31	523.57
*	500.000	450.00	.00	.00	1571.34	11500.00	1574.03	1574.03	1574.92	248.84	7.60	1513.15	729.02
*	500.000	450.00	.00	.00	1571.34	24000.00	1575.20	1575.20	1576.49	220.64	9.12	2631.95	1615.74
*	502.000	1100.00	.00	.00	1576.90	3000.00	1580.18	.00	1580.27	26.42	2.34	1268.53	583.69
*	502.000	1100.00	.00	.00	1576.90	8500.00	1581.61	.00	1581.77	29.51	3.19	2682.78	1564.71
*	502.000	1100.00	.00	.00	1576.90	11500.00	1582.11	.00	1582.29	30.22	3.49	3363.52	2091.79
*	502.000	1100.00	.00	.00	1576.90	24000.00	1583.53	.00	1583.81	31.13	4.40	5747.16	4301.39
*	504.000	945.00	.00	.00	1583.70	3000.00	1584.99	.00	1585.21	144.66	3.78	795.89	249.43
*	504.000	945.00	.00	.00	1583.70	8500.00	1586.07	.00	1586.39	93.55	4.55	1858.57	878.83
*	504.000	945.00	.00	.00	1583.70	11500.00	1586.48	.00	1586.86	86.05	4.91	2331.26	1239.74
*	504.000	945.00	.00	.00	1583.70	24000.00	1587.75	.00	1588.32	78.10	6.07	4024.97	2715.67

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	506.000	1100.00	.00	.00	1593.70	3000.00	1595.26	.00	1595.37	63.88	2.58	1160.72	375.34
	506.000	1100.00	.00	.00	1593.70	8500.00	1595.97	.00	1596.23	85.52	4.07	2097.95	919.16
	506.000	1100.00	.00	.00	1593.70	11500.00	1596.24	.00	1596.56	90.45	4.62	2595.09	1209.18

*	506.000	1100.00	.00	.00	1593.70	24000.00	1596.64	1596.64	1597.48	184.71	7.56	3417.20	1765.88
	508.000	750.00	.00	.00	1597.10	3000.00	1599.24	.00	1599.35	44.79	2.62	1146.19	448.28
*	508.000	750.00	.00	.00	1597.10	8500.00	1600.47	.00	1600.63	42.60	3.23	2677.87	1302.26
*	508.000	750.00	.00	.00	1597.10	11500.00	1600.84	.00	1601.04	42.05	3.58	3292.51	1775.36
*	508.000	750.00	.00	.00	1597.10	24000.00	1602.24	.00	1602.51	33.73	4.23	5902.89	4132.33
*	510.000	840.00	.00	.00	1611.40	3000.00	1612.01	1612.01	1612.19	100.13	3.45	869.67	299.81
*	510.000	840.00	.00	.00	1611.40	8500.00	1612.38	1612.38	1612.73	79.51	4.73	1796.18	953.25
*	510.000	840.00	.00	.00	1611.40	11500.00	1612.53	1612.53	1612.96	76.80	5.22	2202.90	1312.28
*	510.000	840.00	.00	.00	1611.40	24000.00	1613.08	1613.08	1613.72	65.90	6.43	3734.78	2956.40

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Boundary condition: Lake

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	100.000	3000.00	1418.63	.00	.00	1.63	254.04	.00
*	100.000	8500.00	1420.25	1.62	.00	3.25	254.08	.00
*	100.000	11500.00	1420.98	.73	.00	3.98	254.10	.00
*	100.000	24000.00	1423.49	2.52	.00	6.49	254.16	.00
*	105.000	3000.00	1419.51	.00	.88	.00	254.00	1.00
*	105.000	8500.00	1421.98	2.47	1.73	.00	254.00	1.00
*	105.000	11500.00	1423.06	1.08	2.08	.00	254.00	1.00
*	105.000	24000.00	1426.73	3.67	5.23	.00	254.00	1.00
*	202.000	3000.00	1419.50	.00	-.01	.00	558.82	225.00
*	202.000	8500.00	1421.98	2.48	.00	.00	567.57	225.00
*	202.000	11500.00	1423.08	1.10	.02	.00	571.42	225.00
	202.000	24000.00	1426.89	3.82	.16	.00	606.78	225.00
*	204.000	3000.00	1419.58	.00	.09	.00	447.10	524.00
	204.000	8500.00	1422.11	2.53	.13	.00	457.62	524.00
	204.000	11500.00	1423.21	1.10	.14	.00	461.94	524.00
	204.000	24000.00	1427.01	3.80	.12	.00	476.44	524.00
*	206.000	3000.00	1419.52	.00	-.06	.00	225.64	410.00
*	206.000	8500.00	1421.92	2.40	-.19	.00	263.23	410.00
*	206.000	11500.00	1422.96	1.04	-.25	.00	278.28	410.00
*	206.000	24000.00	1426.61	3.65	-.40	.00	342.02	410.00
*	208.000	3000.00	1423.86	.00	4.33	.00	156.69	443.00
*	208.000	8500.00	1426.02	2.17	4.10	.00	187.52	443.00
*	208.000	11500.00	1426.92	.90	3.96	.00	188.28	443.00
*	208.000	24000.00	1430.00	3.08	3.38	.00	190.90	443.00
*	210.000	3000.00	1425.10	.00	1.30	.00	278.96	369.00
*	210.000	8500.00	1428.33	3.17	2.31	.00	280.46	369.00
*	210.000	11500.00	1429.70	1.37	2.78	.00	281.11	369.00
*	210.000	24000.00	1434.34	4.64	4.34	.00	283.29	369.00
*	212.000	3000.00	1425.18	.00	.02	.00	257.73	471.00
*	212.000	8500.00	1428.37	3.19	.04	.00	261.62	471.00
*	212.000	11500.00	1429.74	1.37	.05	.00	263.29	471.00
	212.000	24000.00	1434.39	4.65	.09	.00	268.95	471.00
*	214.000	3000.00	1425.32	.00	.14	.00	161.41	590.00
*	214.000	8500.00	1427.85	2.53	-.53	.00	163.03	590.00
*	214.000	11500.00	1429.18	1.33	-.67	.00	163.87	590.00
*	214.000	24000.00	1433.43	4.25	-.96	.00	166.58	590.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	216.000	3000.00	1428.09	.00	2.77	.00	306.58	560.00
*	216.000	8500.00	1431.16	3.07	3.31	.00	349.81	560.00
*	216.000	11500.00	1432.51	1.36	3.34	.00	356.94	560.00
*	216.000	24000.00	1437.42	4.90	3.99	.00	364.38	560.00
*	218.000	3000.00	1439.86	.00	11.78	.00	122.07	830.00
*	218.000	8500.00	1442.58	2.72	11.43	.00	185.14	830.00
*	218.000	11500.00	1443.61	1.03	11.09	.00	208.93	830.00
*	218.000	24000.00	1446.69	3.08	9.27	.00	280.40	830.00
*	220.000	3000.00	1443.26	.00	3.40	.00	351.57	738.00
*	220.000	8500.00	1446.50	3.24	3.92	.00	352.70	738.00
*	220.000	11500.00	1447.79	1.29	4.18	.00	353.15	738.00
*	220.000	24000.00	1451.73	3.94	5.04	.00	354.51	738.00
*	222.000	3000.00	1449.86	.00	6.59	.00	187.41	511.00
*	222.000	8500.00	1451.90	2.05	5.40	.00	284.51	511.00
*	222.000	11500.00	1452.57	.66	4.78	.00	289.25	511.00
*	222.000	24000.00	1454.88	2.31	3.16	.00	290.12	511.00

*	224.000	3000.00	1451.27	.00	1.42	.00	283.32	507.00
*	224.000	8500.00	1454.18	2.90	2.27	.00	284.93	507.00
*	224.000	11500.00	1455.30	1.13	2.73	.00	285.56	507.00
*	224.000	24000.00	1458.98	3.68	4.10	.00	287.61	507.00
*	226.000	3000.00	1454.01	.00	2.74	.00	241.86	796.00
*	226.000	8500.00	1455.73	1.71	1.55	.00	365.07	796.00
*	226.000	11500.00	1456.40	.67	1.09	.00	413.13	796.00
*	226.000	24000.00	1460.18	3.78	1.20	.00	430.19	796.00
*	228.000	3000.00	1464.40	.00	10.39	.00	431.13	615.00
*	228.000	8500.00	1465.64	1.24	9.91	.00	432.12	615.00
	228.000	11500.00	1466.14	.50	9.75	.00	432.52	615.00
*	228.000	24000.00	1467.58	1.43	7.40	.00	433.67	615.00
*	230.000	3000.00	1465.36	.00	.95	.00	283.24	513.00
*	230.000	8500.00	1467.52	2.17	1.88	.00	284.68	513.00
*	230.000	11500.00	1468.40	.87	2.26	.00	285.26	513.00
*	230.000	24000.00	1471.25	2.85	3.67	.00	287.16	513.00
*	232.000	3000.00	1465.49	.00	.13	.00	164.16	470.00
	232.000	8500.00	1467.90	2.41	.38	.00	183.97	470.00
	232.000	11500.00	1468.89	.99	.49	.00	192.10	470.00
	232.000	24000.00	1472.06	3.17	.82	.00	218.18	470.00
*	234.000	3000.00	1470.80	.00	5.31	.00	111.77	431.00
*	234.000	8500.00	1473.68	2.88	5.78	.00	169.52	431.00
*	234.000	11500.00	1474.81	1.13	5.92	.00	192.19	431.00
*	234.000	24000.00	1477.80	2.98	5.73	.00	200.53	431.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	236.000	3000.00	1472.85	.00	2.05	.00	204.89	577.00
*	236.000	8500.00	1476.72	3.87	3.05	.00	207.90	577.00
*	236.000	11500.00	1478.14	1.42	3.33	.00	209.02	577.00
*	236.000	24000.00	1482.68	4.54	4.88	.00	212.55	577.00
*	238.000	3000.00	1476.83	.00	3.98	.00	401.85	693.00
*	238.000	8500.00	1478.05	1.22	1.33	.00	606.01	693.00
*	238.000	11500.00	1479.08	1.03	.94	.00	731.85	693.00
	238.000	24000.00	1483.90	4.83	1.23	.00	735.83	693.00
*	240.000	3000.00	1479.55	.00	2.72	.00	522.86	455.00
*	240.000	8500.00	1481.18	1.63	3.13	.00	525.16	455.00
*	240.000	11500.00	1481.57	.39	2.49	.00	525.70	455.00
*	240.000	24000.00	1484.35	2.78	.46	.00	529.65	455.00
*	242.000	3000.00	1486.21	.00	6.61	.00	119.61	810.00
*	242.000	8500.00	1488.21	2.00	7.02	.00	368.51	810.00
*	242.000	11500.00	1488.91	.70	7.34	.00	391.34	810.00
*	242.000	24000.00	1490.95	2.04	6.99	.00	466.32	810.00
*	244.000	3000.00	1490.87	.00	4.67	.00	223.57	460.00
	244.000	8500.00	1492.63	1.76	4.43	.00	225.81	460.00
	244.000	11500.00	1493.30	.67	4.39	.00	226.66	460.00
	244.000	24000.00	1495.42	2.12	4.48	.00	229.39	460.00
	246.000	3000.00	1492.68	.00	1.81	.00	133.64	550.00
	246.000	8500.00	1495.53	2.85	2.90	.00	135.93	550.00
	246.000	11500.00	1496.66	1.13	3.56	.00	136.83	550.00
	246.000	24000.00	1500.20	3.54	4.77	.00	139.66	550.00
	248.000	3000.00	1494.39	.00	1.71	.00	125.07	531.00
	248.000	8500.00	1497.84	3.45	2.31	.00	129.56	531.00
	248.000	11500.00	1499.24	1.40	2.58	.00	131.39	531.00
	248.000	24000.00	1503.87	4.63	3.67	.00	137.42	531.00
*	250.000	3000.00	1500.11	.00	5.71	.00	232.16	834.00
	250.000	8500.00	1502.52	2.41	4.68	.00	297.66	834.00
	250.000	11500.00	1503.86	1.34	4.62	.00	409.57	834.00
*	250.000	24000.00	1508.75	4.88	4.88	.00	508.42	834.00
	252.000	3000.00	1505.50	.00	5.40	.00	280.12	791.00
	252.000	8500.00	1507.61	2.11	5.09	.00	353.87	791.00
	252.000	11500.00	1508.22	.61	4.35	.00	378.03	791.00
	252.000	24000.00	1510.52	2.30	1.77	.00	829.83	791.00
*	254.000	3000.00	1507.28	.00	1.77	.00	361.88	628.00
*	254.000	8500.00	1509.65	2.38	2.04	.00	437.81	628.00
*	254.000	11500.00	1510.55	.90	2.33	.00	460.46	628.00
	254.000	24000.00	1512.31	1.76	1.79	.00	505.20	628.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH

	256.000	3000.00	1508.38	.00	1.11	.00	327.85	530.00
	256.000	8500.00	1510.69	2.31	1.04	.00	409.35	530.00
	256.000	11500.00	1511.60	.91	1.05	.00	440.26	530.00
	256.000	24000.00	1513.96	2.36	1.65	.00	519.90	530.00
	258.000	3000.00	1509.60	.00	1.22	.00	213.68	435.00
	258.000	8500.00	1511.81	2.21	1.12	.00	288.67	435.00
	258.000	11500.00	1512.66	.85	1.06	.00	317.21	435.00
	258.000	24000.00	1515.07	2.41	1.11	.00	398.58	435.00
	260.000	3000.00	1511.24	.00	1.64	.00	249.02	410.00
	260.000	8500.00	1513.67	2.43	1.86	.00	262.75	410.00
	260.000	11500.00	1514.64	.97	1.99	.00	272.00	410.00
	260.000	24000.00	1517.59	2.94	2.52	.00	299.95	410.00
*	262.000	3000.00	1518.27	.00	7.03	.00	291.28	390.00
*	262.000	8500.00	1519.68	1.41	6.01	.00	516.08	390.00
*	262.000	11500.00	1520.09	.41	5.45	.00	516.38	390.00
*	262.000	24000.00	1521.62	1.53	4.04	.00	517.51	390.00
*	264.000	3000.00	1523.72	.00	5.45	.00	597.38	435.00
*	264.000	8500.00	1524.85	1.13	5.17	.00	654.66	435.00
*	264.000	11500.00	1525.35	.50	5.26	.00	678.33	435.00
*	264.000	24000.00	1526.99	1.64	5.36	.00	742.58	435.00
*	266.000	3000.00	1524.65	.00	.93	.00	380.15	370.00
*	266.000	8500.00	1526.32	1.67	1.47	.00	557.18	370.00
*	266.000	11500.00	1526.94	.62	1.59	.00	634.90	370.00
*	266.000	24000.00	1528.84	1.90	1.85	.00	843.79	370.00
*	268.000	3000.00	1528.28	.00	3.63	.00	607.51	490.00
*	268.000	8500.00	1529.36	1.08	3.05	.00	821.98	490.00
*	268.000	11500.00	1529.76	.40	2.93	.00	892.19	490.00
*	268.000	24000.00	1531.10	1.34	2.26	.00	1012.51	490.00
*	270.000	3000.00	1529.89	.00	1.61	.00	1046.78	380.00
*	270.000	8500.00	1531.26	1.37	1.90	.00	1253.50	380.00
*	270.000	11500.00	1531.79	.53	2.03	.00	1282.11	380.00
*	270.000	24000.00	1533.40	1.61	2.30	.00	1670.53	380.00
*	272.000	3000.00	1539.47	.00	9.58	.00	1690.03	55.00
*	272.000	8500.00	1539.92	.45	8.66	.00	1904.93	55.00
*	272.000	11500.00	1540.11	.18	8.32	.00	1948.44	55.00
*	272.000	24000.00	1540.79	.68	7.39	.00	2181.28	55.00
*	274.000	3000.00	1539.74	.00	.26	.00	1423.27	35.00
*	274.000	8500.00	1540.39	.66	.47	.00	1440.45	35.00
*	274.000	11500.00	1540.68	.29	.58	.00	1442.81	35.00
*	274.000	24000.00	1541.61	.93	.82	.00	1450.41	35.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	276.000	3000.00	1539.73	.00	.00	.00	1051.81	590.00
*	276.000	8500.00	1540.39	.66	-.01	.00	1129.97	590.00
*	276.000	11500.00	1540.67	.29	-.01	.00	1138.61	590.00
*	276.000	24000.00	1541.59	.91	-.02	.00	1170.52	590.00
	278.000	3000.00	1539.75	.00	.02	.00	1159.86	450.00
	278.000	8500.00	1540.47	.72	.08	.00	1219.61	450.00
	278.000	11500.00	1540.80	.33	.13	.00	1236.25	450.00
*	278.000	24000.00	1541.94	1.14	.36	.00	1293.20	450.00
*	280.000	3000.00	1540.88	.00	1.13	.00	717.02	560.00
*	280.000	8500.00	1541.78	.90	1.31	.00	922.88	560.00
*	280.000	11500.00	1542.19	.41	1.39	.00	1023.72	560.00
*	280.000	24000.00	1543.29	1.10	1.35	.00	1225.79	560.00
*	282.000	3000.00	1542.75	.00	1.88	.00	603.11	590.00
*	282.000	8500.00	1544.34	1.59	2.56	.00	1179.37	590.00
*	282.000	11500.00	1544.80	.46	2.61	.00	1266.81	590.00
*	282.000	24000.00	1546.22	1.42	2.93	.00	1660.77	590.00
*	284.000	3000.00	1543.64	.00	.89	.00	859.46	535.00
*	284.000	8500.00	1545.36	1.73	1.03	.00	1406.11	535.00
*	284.000	11500.00	1545.91	.55	1.11	.00	1433.57	535.00
*	284.000	24000.00	1547.47	1.56	1.25	.00	1519.67	535.00
*	286.000	3000.00	1543.94	.00	.30	.00	99.89	480.00
*	286.000	8500.00	1546.15	2.21	.78	.00	1028.95	480.00
*	286.000	11500.00	1546.53	.39	.62	.00	1163.46	480.00
*	286.000	24000.00	1548.26	1.72	.78	.00	1769.43	480.00
*	288.000	3000.00	1547.64	.00	3.70	.00	86.97	580.00
	288.000	8500.00	1549.56	1.92	3.42	.00	1026.92	580.00
*	288.000	11500.00	1550.44	.88	3.91	.00	1181.41	580.00
*	288.000	24000.00	1551.64	1.20	3.38	.00	1391.52	580.00
	292.000	3000.00	1549.66	.00	2.02	.00	67.48	835.00
	292.000	8500.00	1553.84	4.18	4.28	.00	401.66	835.00

	292.000	11500.00	1553.96	.12	3.52	.00	614.24	835.00
*	292.000	24000.00	1556.34	2.38	4.70	.00	1966.77	835.00
*	294.000	3000.00	1551.35	.00	1.69	.00	100.45	550.00
	294.000	8500.00	1556.74	5.39	2.90	.00	203.85	550.00
*	294.000	11500.00	1558.47	1.73	4.51	.00	728.90	550.00
*	294.000	24000.00	1559.87	1.40	3.53	.00	1100.00	550.00
	296.000	3000.00	1554.29	.00	2.94	.00	239.05	360.00
	296.000	8500.00	1558.28	3.99	1.54	.00	301.49	360.00
	296.000	11500.00	1559.80	1.53	1.33	.00	315.24	360.00
*	296.000	24000.00	1561.99	2.18	2.12	.00	1000.00	360.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	298.000	3000.00	1556.66	.00	2.37	.00	193.33	660.00
	298.000	8500.00	1559.76	3.11	1.49	.00	208.82	660.00
	298.000	11500.00	1561.11	1.35	1.31	.00	570.01	660.00
	298.000	24000.00	1563.63	2.52	1.64	.00	796.93	660.00
*	300.000	3000.00	1558.00	.00	1.34	.00	114.96	540.00
*	300.000	8500.00	1561.38	3.38	1.62	.00	164.85	540.00
*	300.000	11500.00	1562.50	1.12	1.39	.00	176.82	540.00
*	300.000	24000.00	1565.96	3.46	2.33	.00	673.16	540.00
*	302.000	3000.00	1563.53	.00	5.53	.00	93.29	490.00
*	302.000	8500.00	1567.71	4.18	6.33	.00	780.60	490.00
*	302.000	11500.00	1568.29	.58	5.79	.00	819.12	490.00
	302.000	24000.00	1570.27	1.97	4.31	.00	1261.48	490.00
*	304.000	3000.00	1567.64	.00	4.11	.00	137.23	515.00
	304.000	8500.00	1570.47	2.83	2.76	.00	737.52	515.00
	304.000	11500.00	1571.04	.57	2.74	.00	950.56	515.00
	304.000	24000.00	1572.57	1.53	2.30	.00	1199.39	515.00
*	306.000	3000.00	1568.33	.00	.69	.00	239.04	300.00
*	306.000	8500.00	1571.71	3.38	1.24	.00	1328.85	300.00
*	306.000	11500.00	1572.44	.73	1.40	.00	1393.59	300.00
*	306.000	24000.00	1574.14	1.70	1.57	.00	1696.89	300.00
*	500.000	3000.00	1572.79	.00	4.45	.00	673.44	450.00
*	500.000	8500.00	1573.66	.87	1.94	.00	798.90	450.00
*	500.000	11500.00	1574.03	.37	1.59	.00	858.62	450.00
*	500.000	24000.00	1575.20	1.16	1.07	.00	1038.35	450.00
*	502.000	3000.00	1580.18	.00	7.40	.00	784.46	1100.00
*	502.000	8500.00	1581.61	1.43	7.95	.00	1222.09	1100.00
*	502.000	11500.00	1582.11	.50	8.08	.00	1460.07	1100.00
*	502.000	24000.00	1583.53	1.42	8.33	.00	1878.84	1100.00
*	504.000	3000.00	1584.99	.00	4.81	.00	869.17	945.00
*	504.000	8500.00	1586.07	1.08	4.46	.00	1105.53	945.00
*	504.000	11500.00	1586.48	.41	4.37	.00	1189.43	945.00
*	504.000	24000.00	1587.75	1.28	4.22	.00	1504.50	945.00
*	506.000	3000.00	1595.26	.00	10.27	.00	1197.81	1100.00
	506.000	8500.00	1595.97	.71	9.91	.00	1428.62	1100.00
	506.000	11500.00	1596.24	.26	9.76	.00	1984.72	1100.00
*	506.000	24000.00	1596.64	.40	8.88	.00	2125.20	1100.00
	508.000	3000.00	1599.24	.00	3.98	.00	889.25	750.00
*	508.000	8500.00	1600.47	1.23	4.50	.00	1589.69	750.00
*	508.000	11500.00	1600.84	.37	4.61	.00	1688.38	750.00
*	508.000	24000.00	1602.24	1.40	5.61	.00	2088.92	750.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	510.000	3000.00	1612.01	.00	12.76	.00	2385.03	840.00
*	510.000	8500.00	1612.38	.37	11.90	.00	2579.02	840.00
*	510.000	11500.00	1612.53	.16	11.69	.00	2659.71	840.00
*	510.000	24000.00	1613.08	.55	10.84	.00	2943.84	840.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 100.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 100.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 100.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 100.000 PROFILE= 4 CRITICAL DEPTH ASSUMED

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 WARNING SECNO=    105.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    105.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    105.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    105.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    202.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    202.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    202.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    204.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    206.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    206.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    206.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    206.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    208.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    208.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    208.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    208.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    208.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    208.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    208.000  PROFILE=  3  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    208.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    208.000  PROFILE=  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    208.000  PROFILE=  4  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    208.000  PROFILE=  4  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    208.000  PROFILE=  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    210.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    210.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    210.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    210.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    212.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    212.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    212.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    214.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    214.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    214.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 WARNING SECNO=    214.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    214.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    214.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    216.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
1
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 WARNING SECNO=    216.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    216.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    216.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    218.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    218.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    218.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    218.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    218.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    218.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    218.000  PROFILE=  3  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    218.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    218.000  PROFILE=  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    218.000  PROFILE=  4  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    218.000  PROFILE=  4  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    218.000  PROFILE=  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    220.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    220.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    220.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    220.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    222.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    222.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    222.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    222.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    222.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    222.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    222.000  PROFILE=  3  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    222.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    222.000  PROFILE=  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    222.000  PROFILE=  4  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    222.000  PROFILE=  4  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    222.000  PROFILE=  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    224.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    224.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    224.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    224.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    226.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    226.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
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 CAUTION SECNO=    226.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    226.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    226.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    226.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    226.000  PROFILE=  3  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    226.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    226.000  PROFILE=  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
 WARNING SECNO=    226.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    228.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    228.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 CAUTION SECNO=    228.000  PROFILE=  4  CRITICAL DEPTH ASSUMED
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 CAUTION SECNO=    228.000  PROFILE=  4  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    228.000  PROFILE=  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    230.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    230.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    230.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    230.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    232.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    234.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    234.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    234.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    234.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    234.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    234.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    234.000  PROFILE=  3  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    234.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    234.000  PROFILE=  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    234.000  PROFILE=  4  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    234.000  PROFILE=  4  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    234.000  PROFILE=  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    236.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    236.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    236.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    236.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    238.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    238.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    238.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    238.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    238.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    238.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 WARNING SECNO=    238.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    240.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    240.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    240.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    240.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    242.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    242.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    242.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    242.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    242.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    242.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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 CAUTION SECNO=    242.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
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 WARNING SECNO=    254.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 CAUTION SECNO=    272.000  PROFILE=  4  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    272.000  PROFILE=  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

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 WARNING SECNO=    276.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    278.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 CAUTION SECNO=    280.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    280.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    280.000  PROFILE=  3  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    280.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION SECNO= 288.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 292.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 292.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

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CAUTION SECNO= 300.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

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CAUTION SECNO= 302.000 PROFILE= 3 MINIMUM SPECIFIC ENERGY

WARNING SECNO= 304.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 306.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 306.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO= 500.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
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CAUTION SECNO= 500.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

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WARNING SECNO= 502.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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1

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WARNING SECNO= 504.000 PROFILE= 3 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 504.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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WARNING SECNO= 508.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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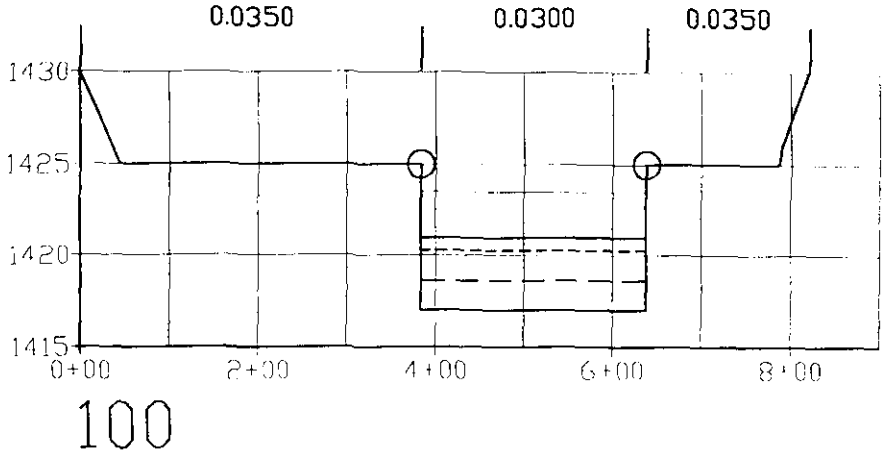


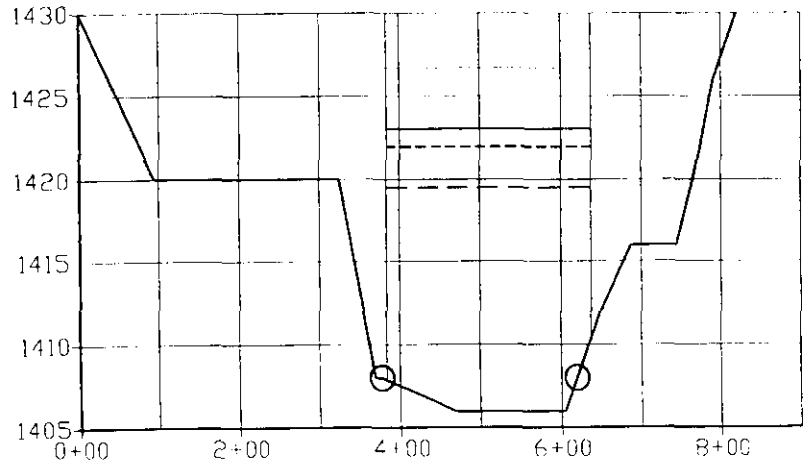
100

Profile 1
Flow Discharge = 3000.00 cfs
- — - 10-YEAR WSEL = 1418.62 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1420.25 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1420.97 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1423.49 ft



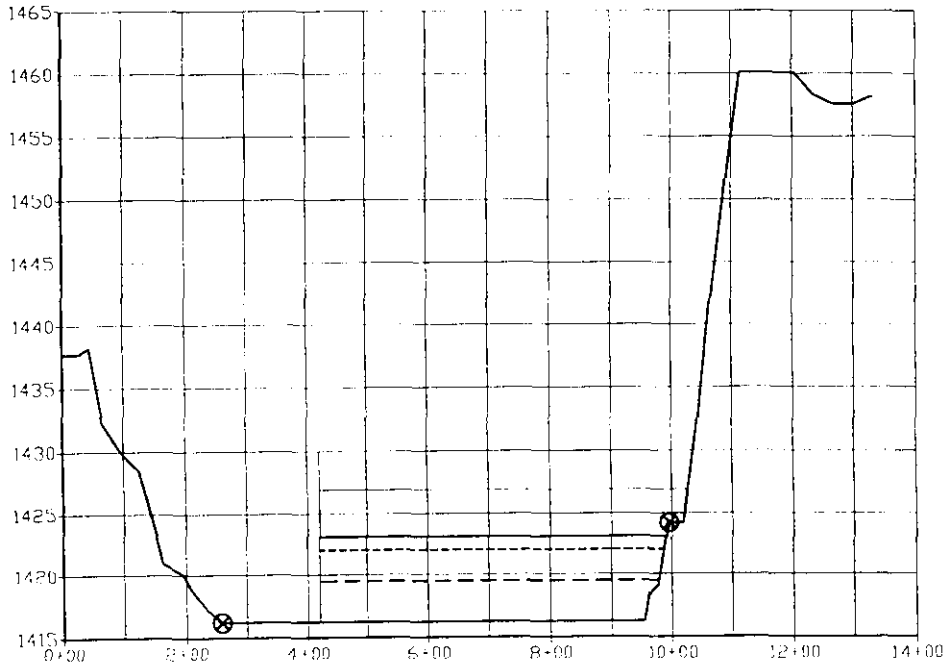
105

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1419.51 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1421.97 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1423.06 ft

Profile 4
Flow Discharge = 24000.00 cfs
— — — 500-YEAR WSEL = 1426.72 ft



202

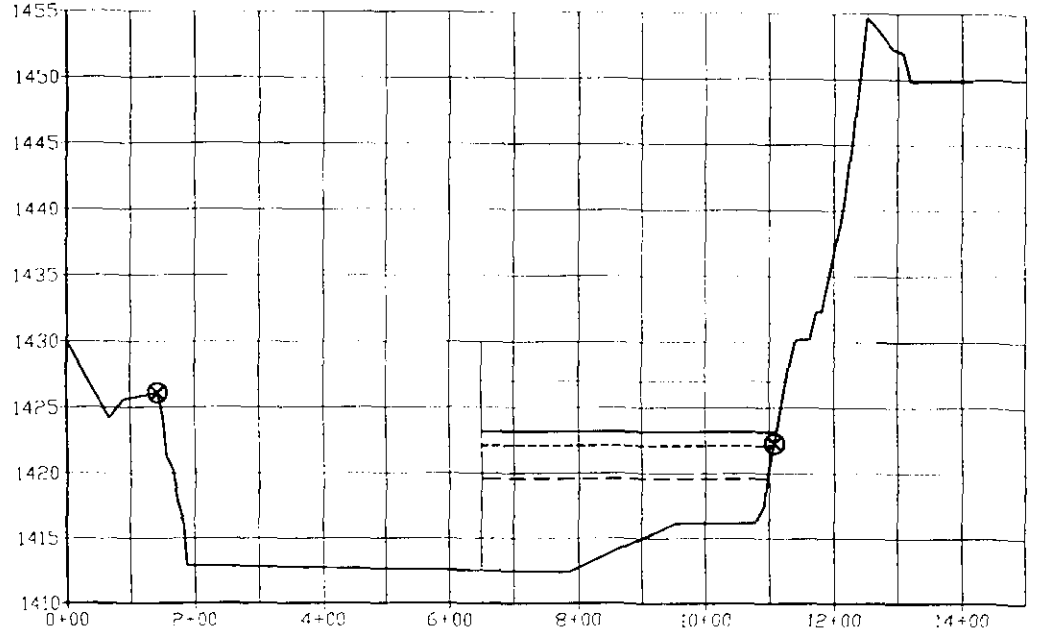
Bern at station 480 was removed based on field observations.

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1419.49 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1421.97 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1423.07 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1426.89 ft



204

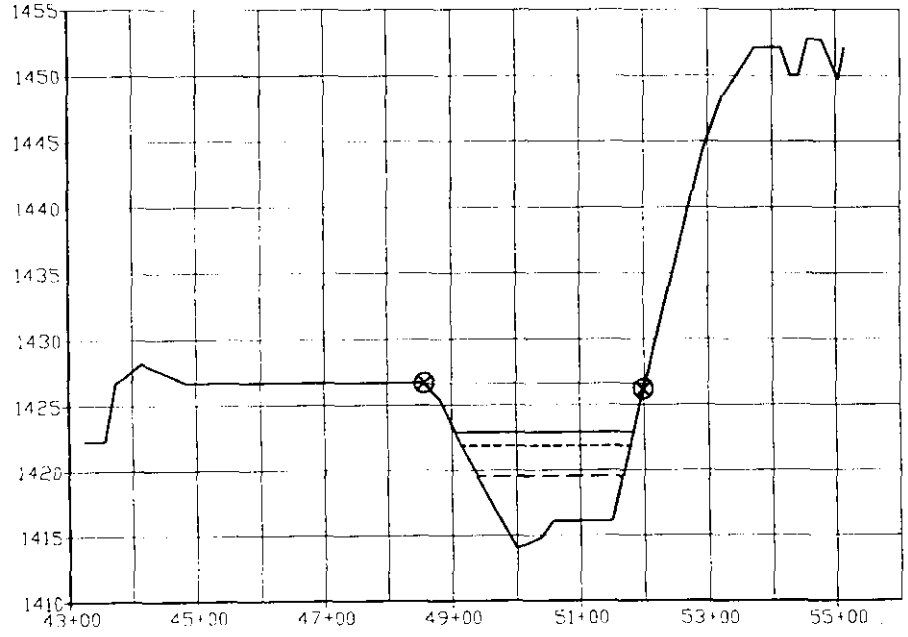
Berm at station 800 removed based on 1.1 foot overtopping during HEC-2 analysis. Berm is not a FEMA certified Levee and does not meet freeboard requirements.

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1419.58 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1422.11 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1423.21 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1427.01 ft



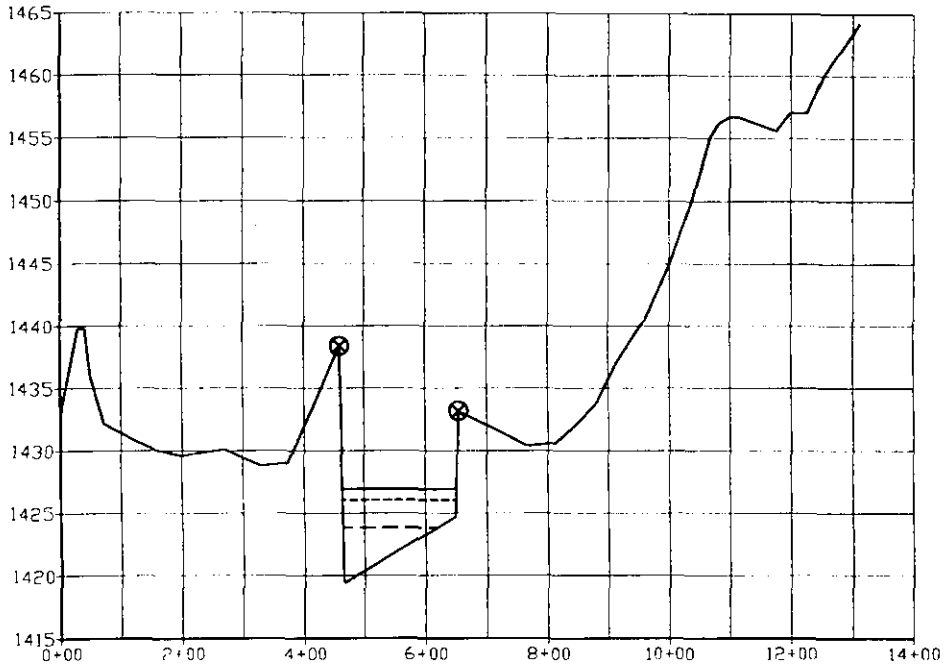
206

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1419.52 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1421.92 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1422.96 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1426.61 ft



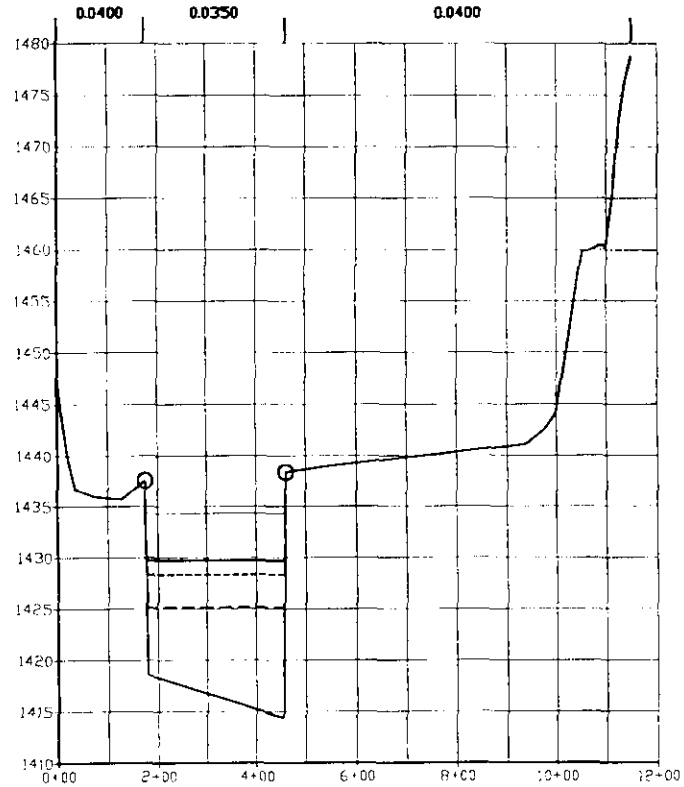
208

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1423.85 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1426.02 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1426.91 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1429.99 ft



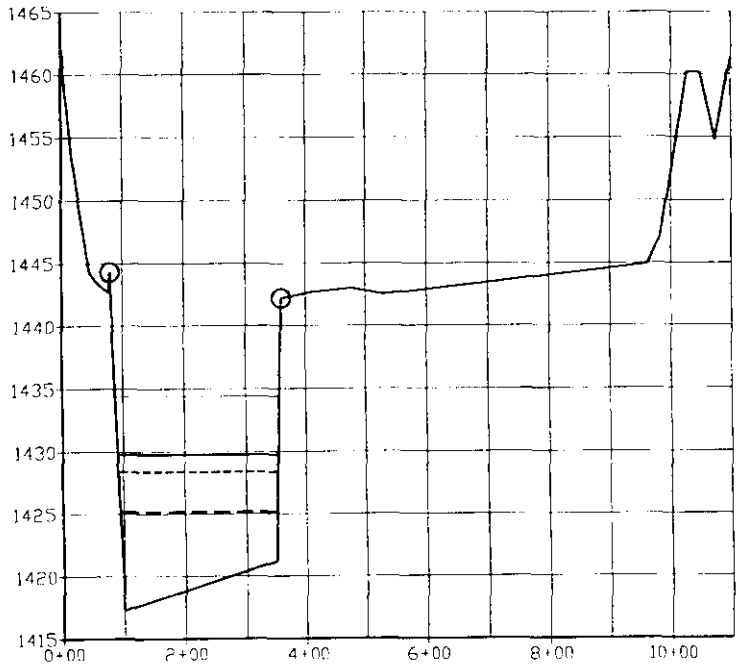
210

Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1425.15 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1428.33 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1429.69 ft

Profile 4
Flow Discharge = 24000.00 cfs
—— 500-YEAR WSEL = 1434.33 ft



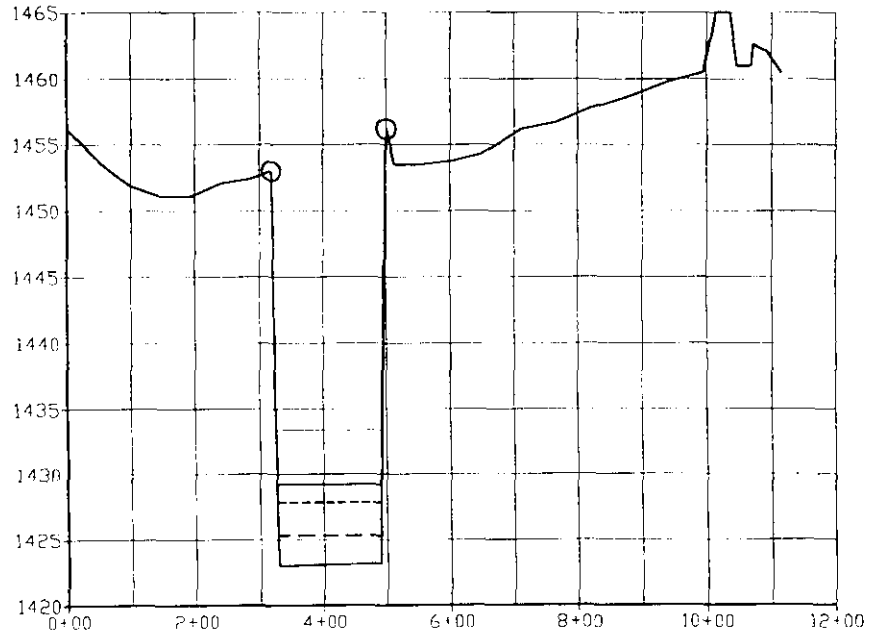
212

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1425.17 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1428.37 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1429.74 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1434.39 ft



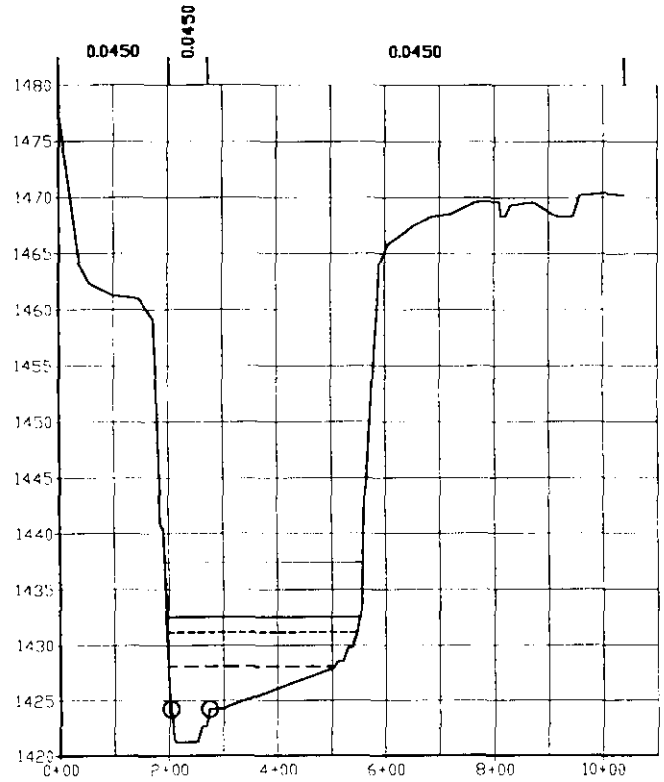
214

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1425.31 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1427.84 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1429.17 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1433.42 ft



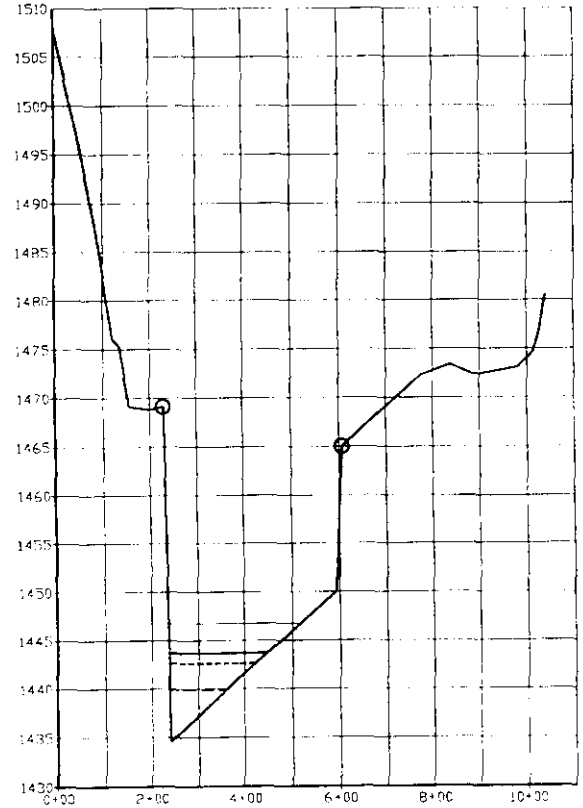
216

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1428.08 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1431.15 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1432.51 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1437.41 ft



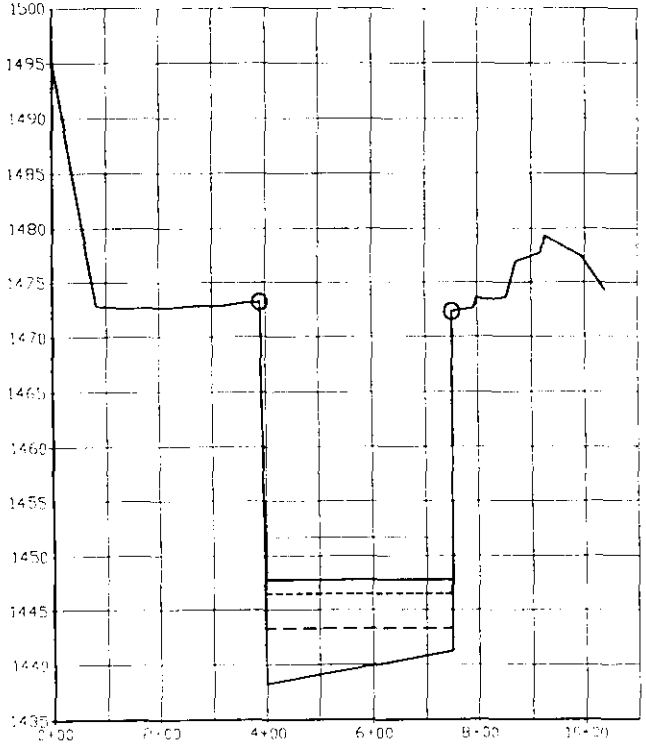
218

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1439.86 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1442.58 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1443.60 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1446.69 ft

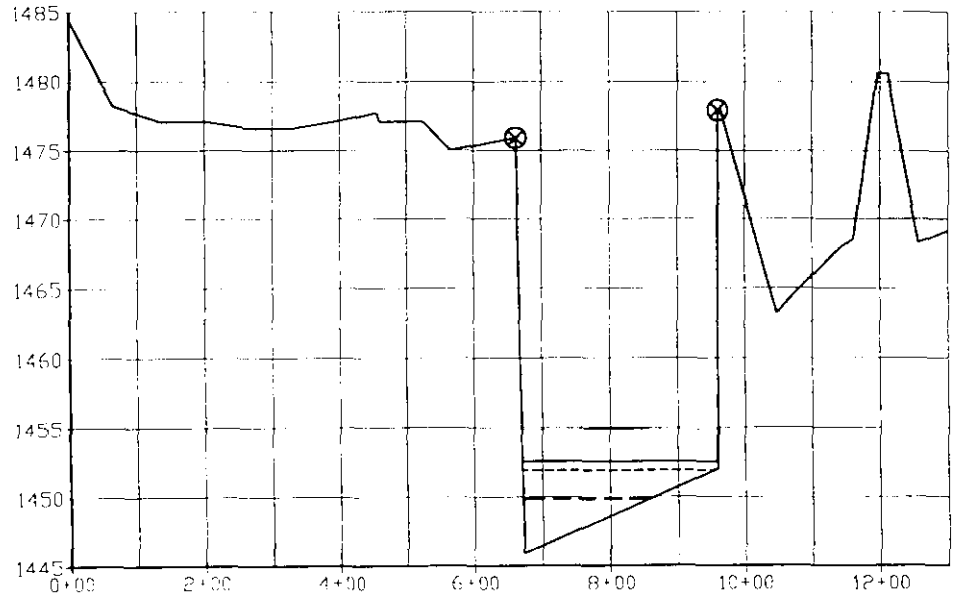


Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1443.26 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1446.50 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1447.79 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1451.72 ft



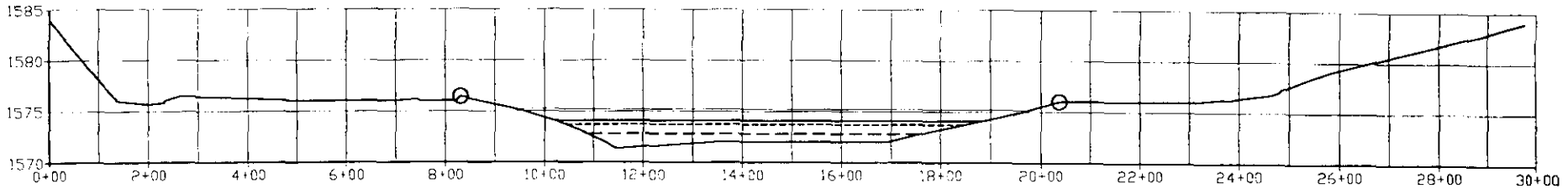
222

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1449.85 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1451.90 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1452.56 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1454.88 ft



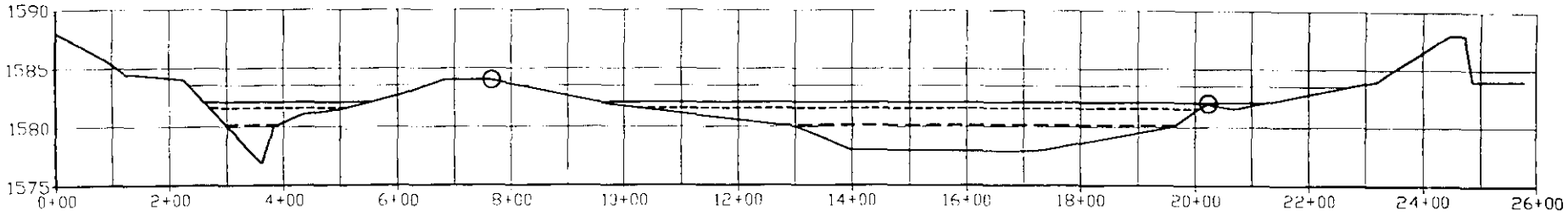
500

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1572.78 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1573.65 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1574.02 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1575.20 ft



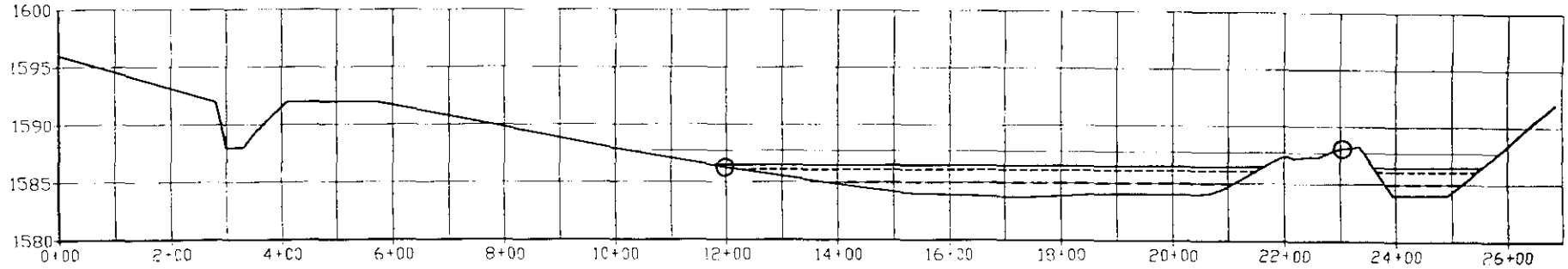
502

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1580.18 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1581.61 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1582.11 ft

Profile 4
Flow Discharge = 24000.00 cfs
-..-..- 500-YEAR WSEL = 1583.53 ft



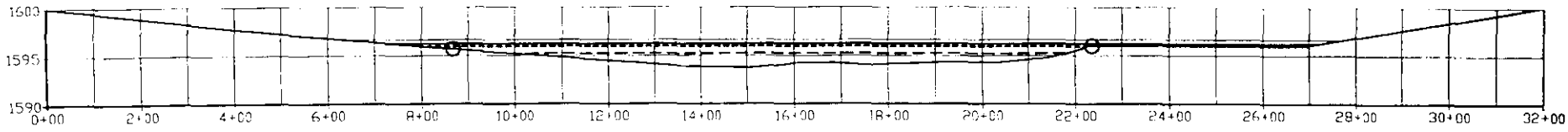
504

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1584.99 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1586.06 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1586.47 ft

Profile 4
Flow Discharge = 24000.00 cfs
- —— 500-YEAR WSEL = 1587.75 ft



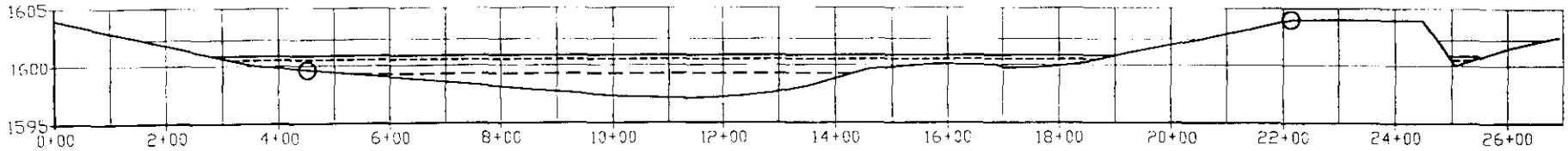
506

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1595.26 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1595.97 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1596.23 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1596.63 ft



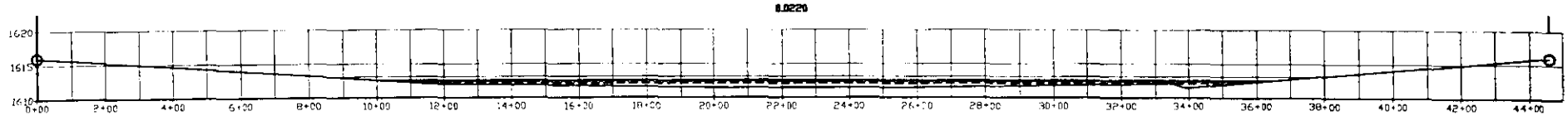
508

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1599.24 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1600.47 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1600.84 ft

Profile 4
Flow Discharge = 24000.00 cfs
— — — 500-YEAR WSEL = 1602.24 ft



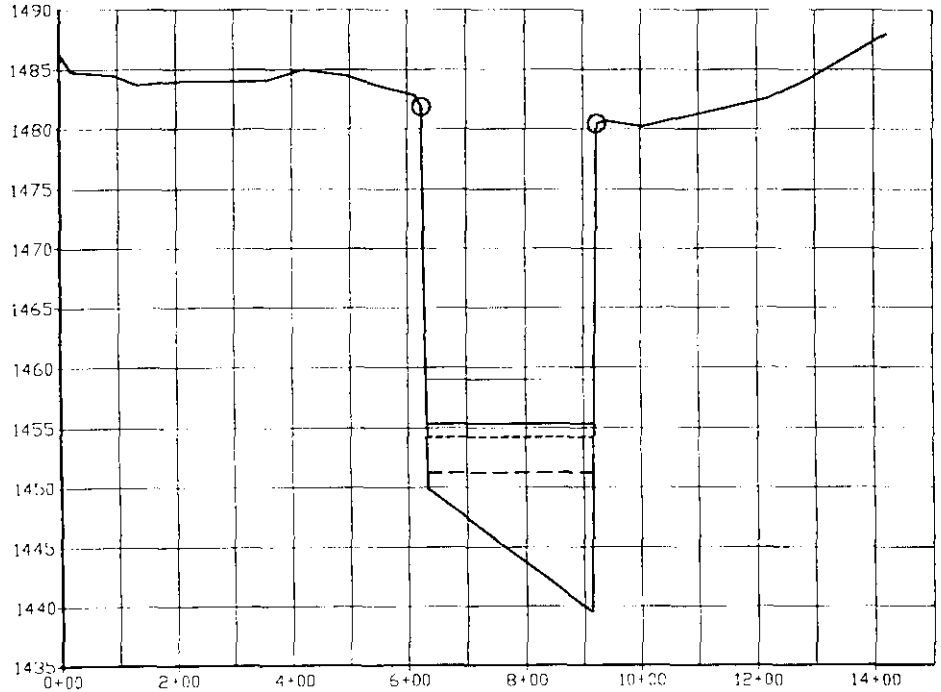
510

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1612.00 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1612.37 ft

Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL = 1612.53 ft

Profile 4
Flow Discharge = 24000.00 cfs
—— 500-YEAR WSEL = 1613.07 ft



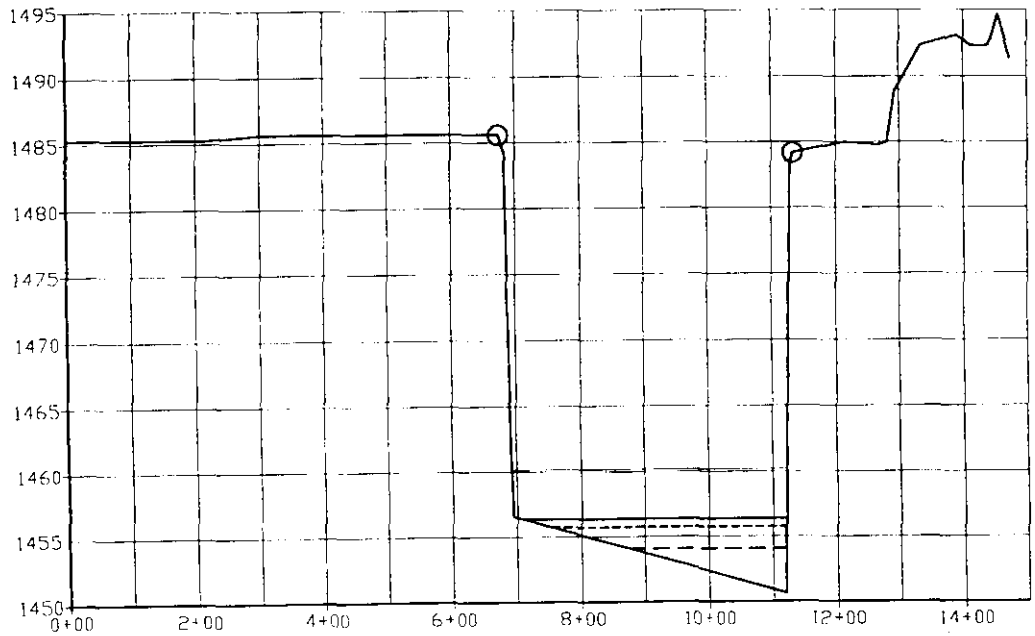
224

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1451.27 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1454.17 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1455.30 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1458.98 ft



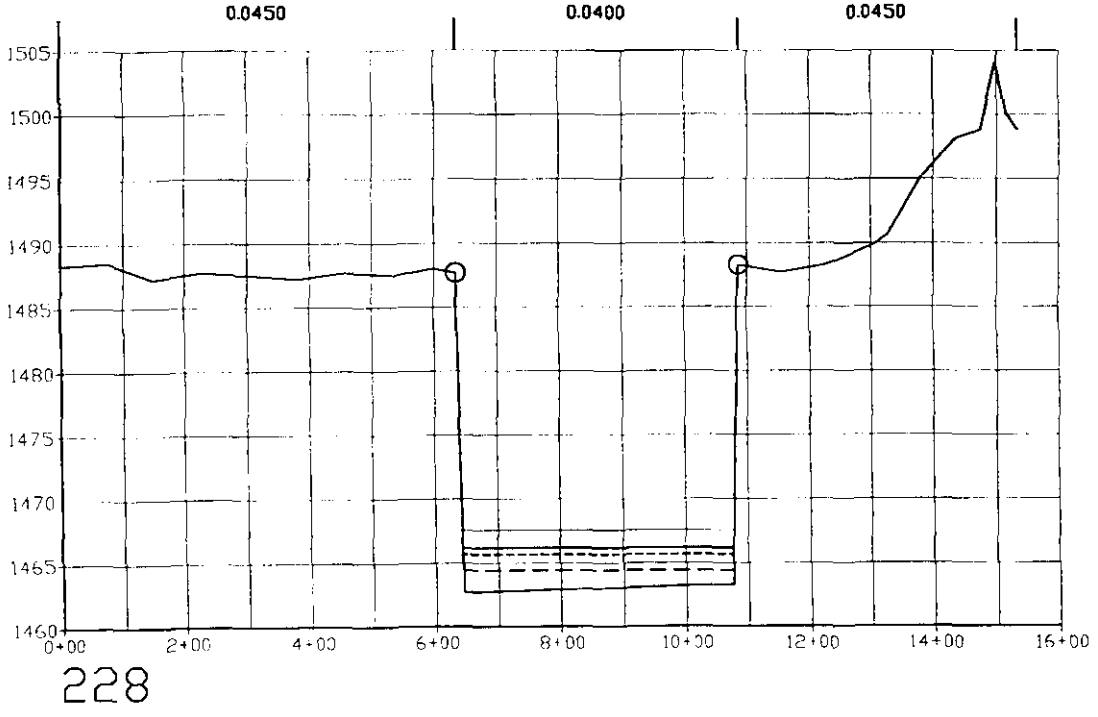
226

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1454.01 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1455.72 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1456.39 ft

Profile 4
Flow Discharge = 24000.00 cfs
- — 500-YEAR WSEL = 1460.18 ft



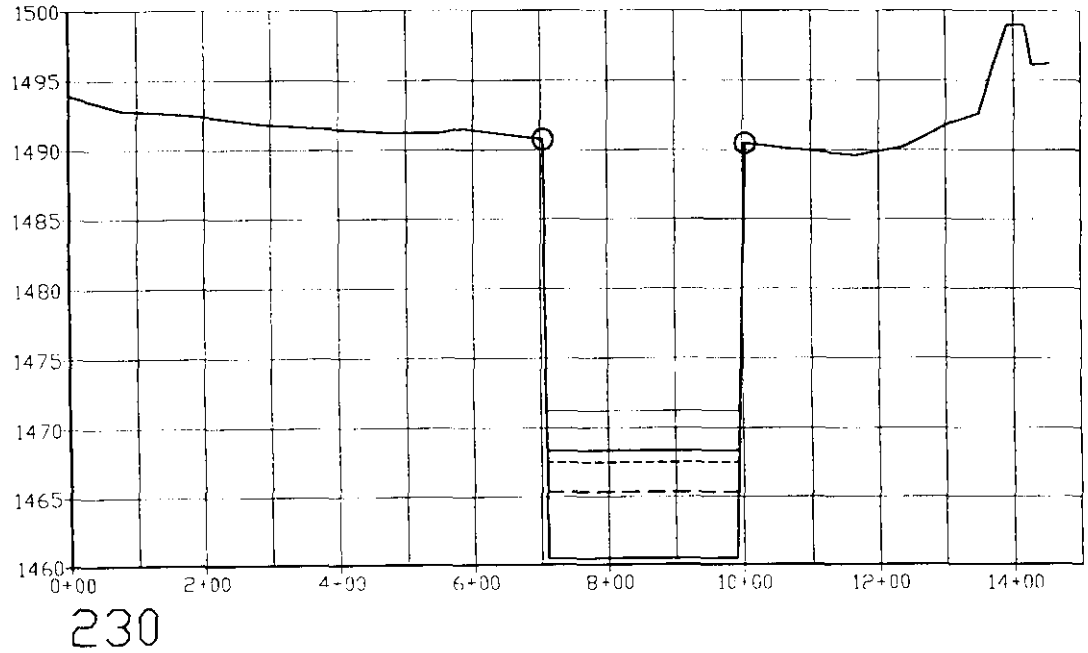
228

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1464.40 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1465.64 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1466.14 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1467.57 ft



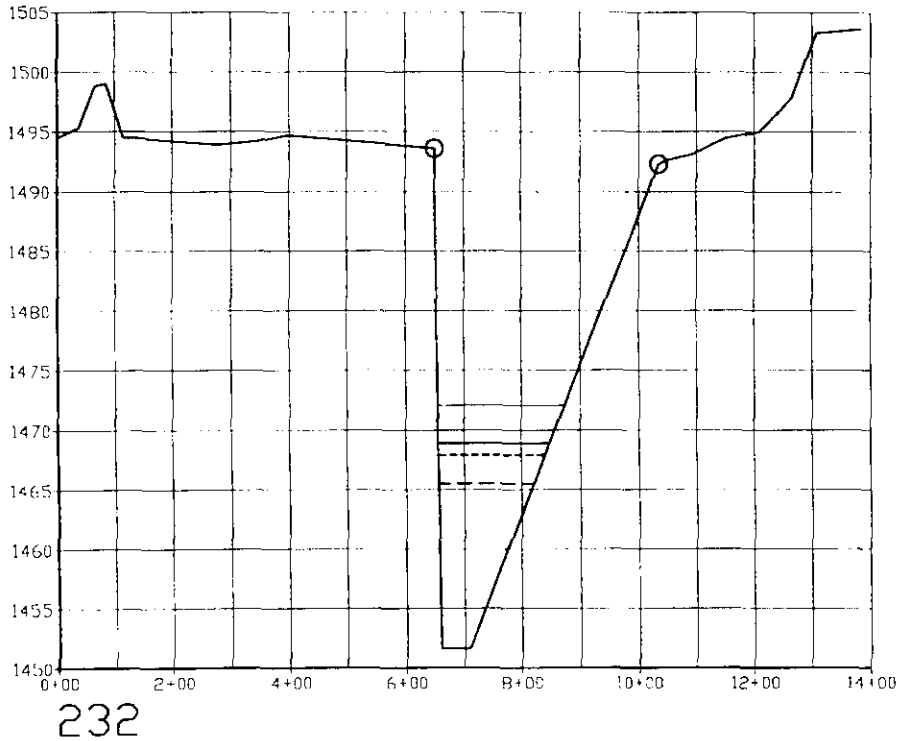
230

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1465.35 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1467.52 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1468.39 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1471.24 ft



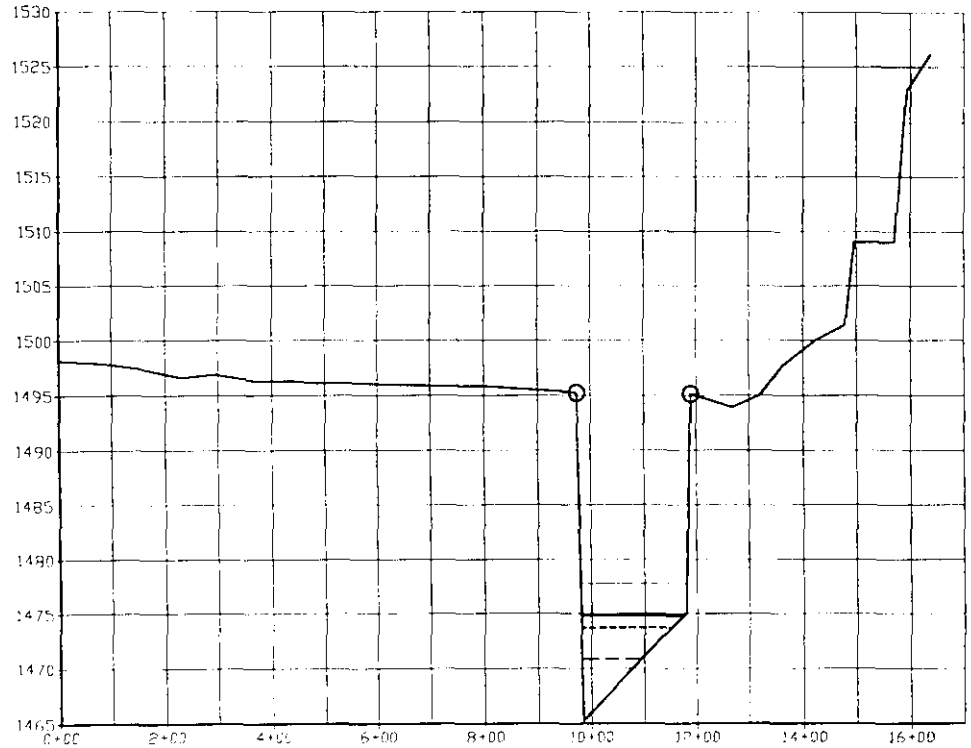
232

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1465.49 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1467.90 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1468.89 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1472.06 ft



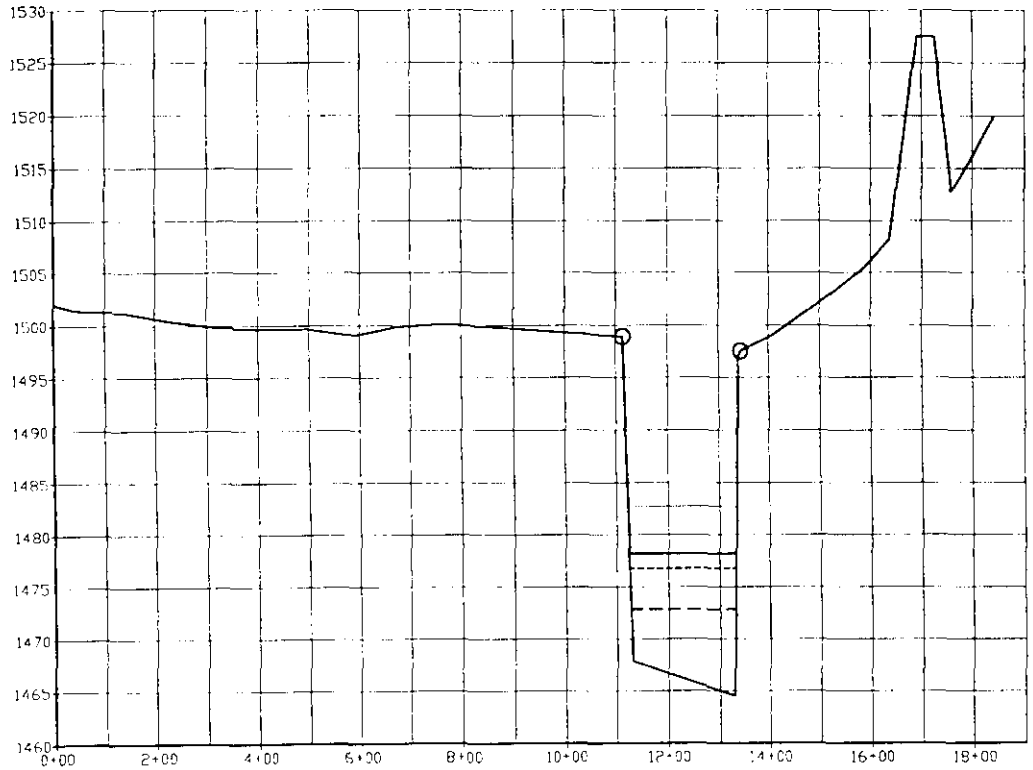
234

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1470.80 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1473.68 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1474.81 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1477.79 ft



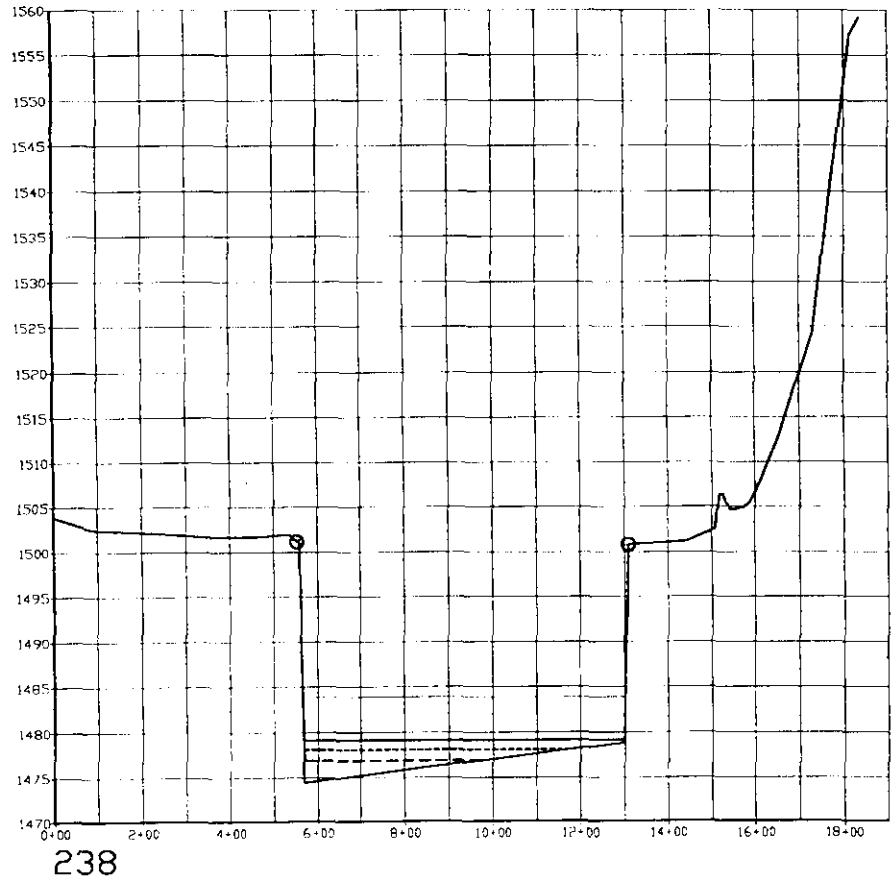
236

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1472.85 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1476.71 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1478.14 ft

Profile 4
Flow Discharge = 24000.00 cfs
..... 500-YEAR WSEL = 1482.67 ft



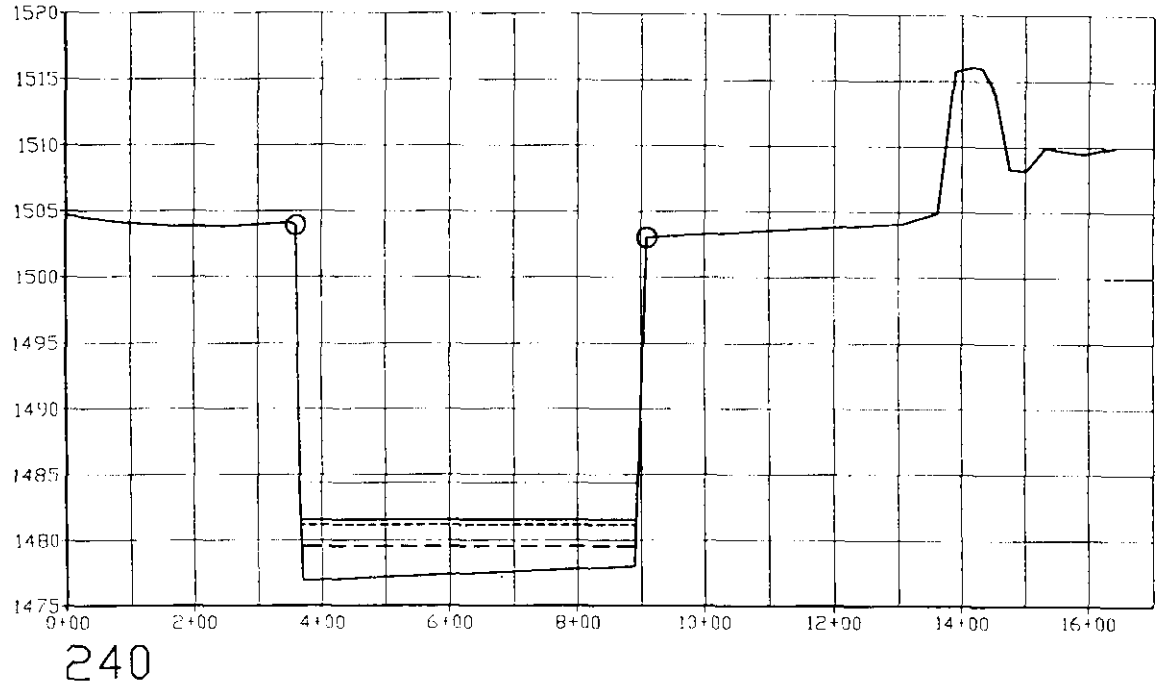
238

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1476.83 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1478.05 ft

Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL = 1479.07 ft

Profile 4
Flow Discharge = 24000.00 cfs
—— 500-YEAR WSEL = 1483.90 ft



Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1479.55 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1481.18 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1481.56 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1484.35 ft

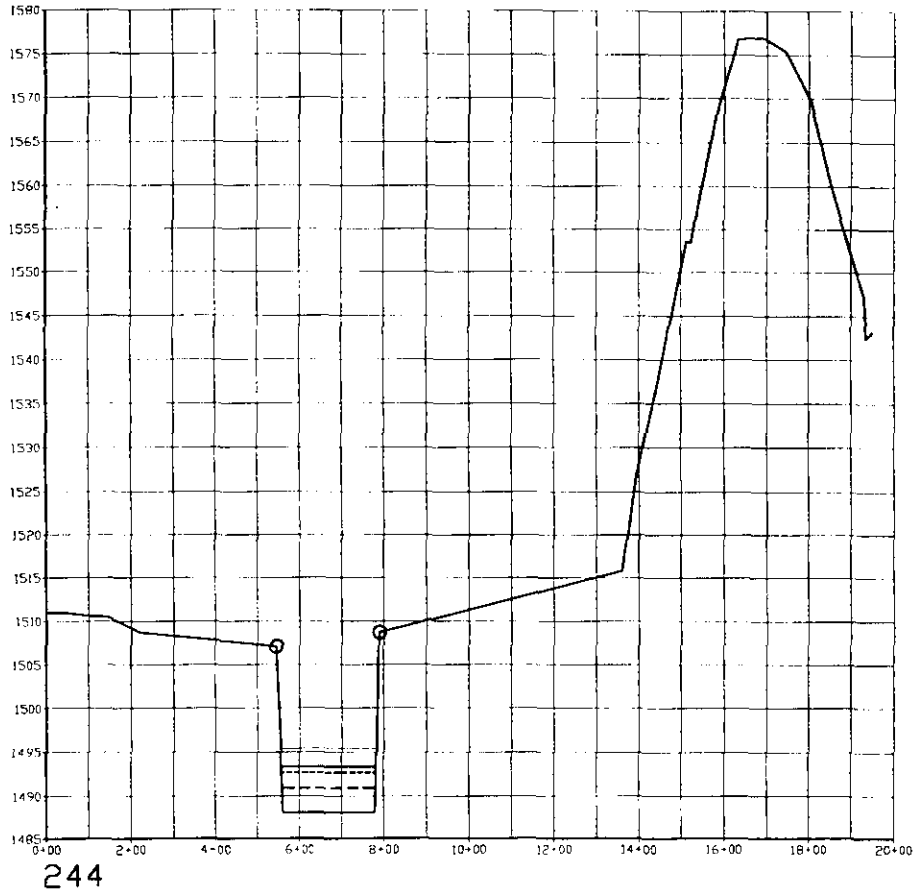
242

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1486.20 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1488.20 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1488.90 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1490.94 ft



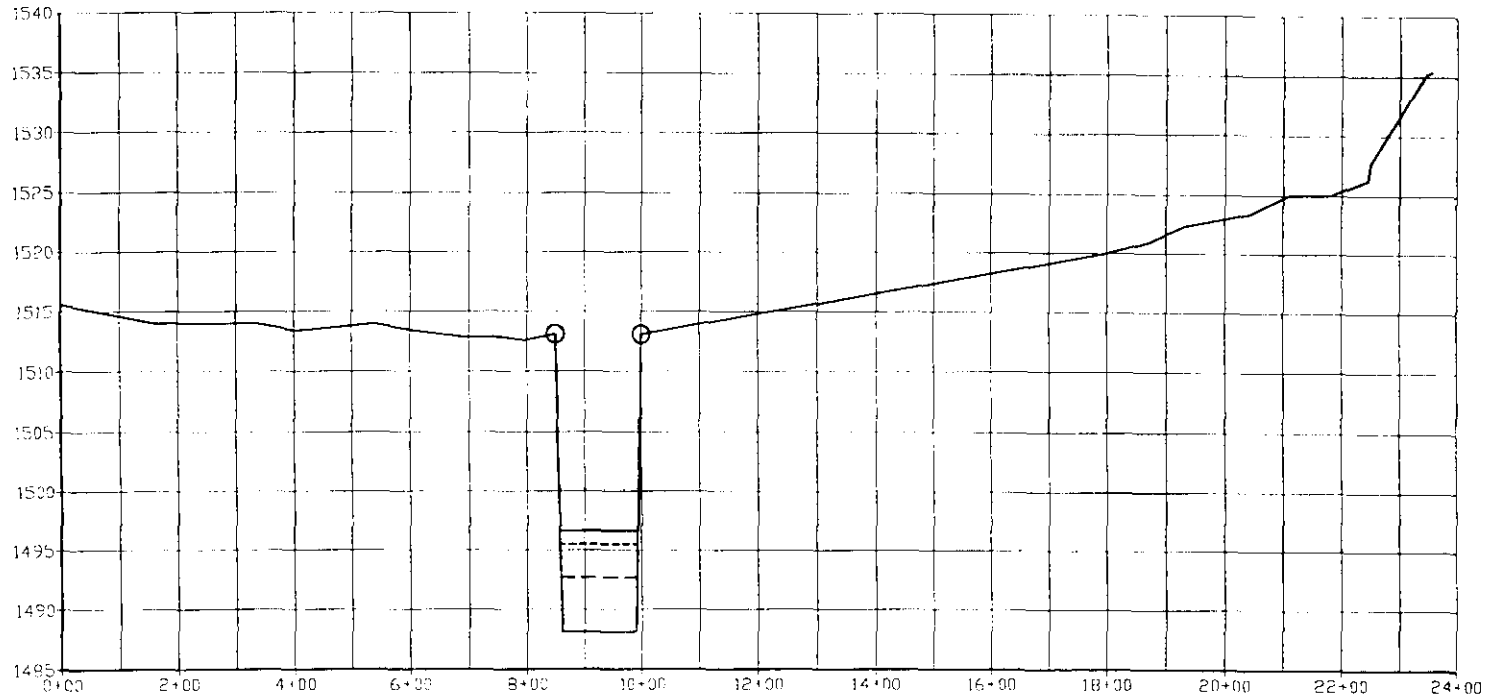
244

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1490.87 Ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1492.63 Ft

Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL = 1493.30 Ft

Profile 4
Flow Discharge = 24000.00 cfs
—·— 500-YEAR WSEL = 1495.42 Ft



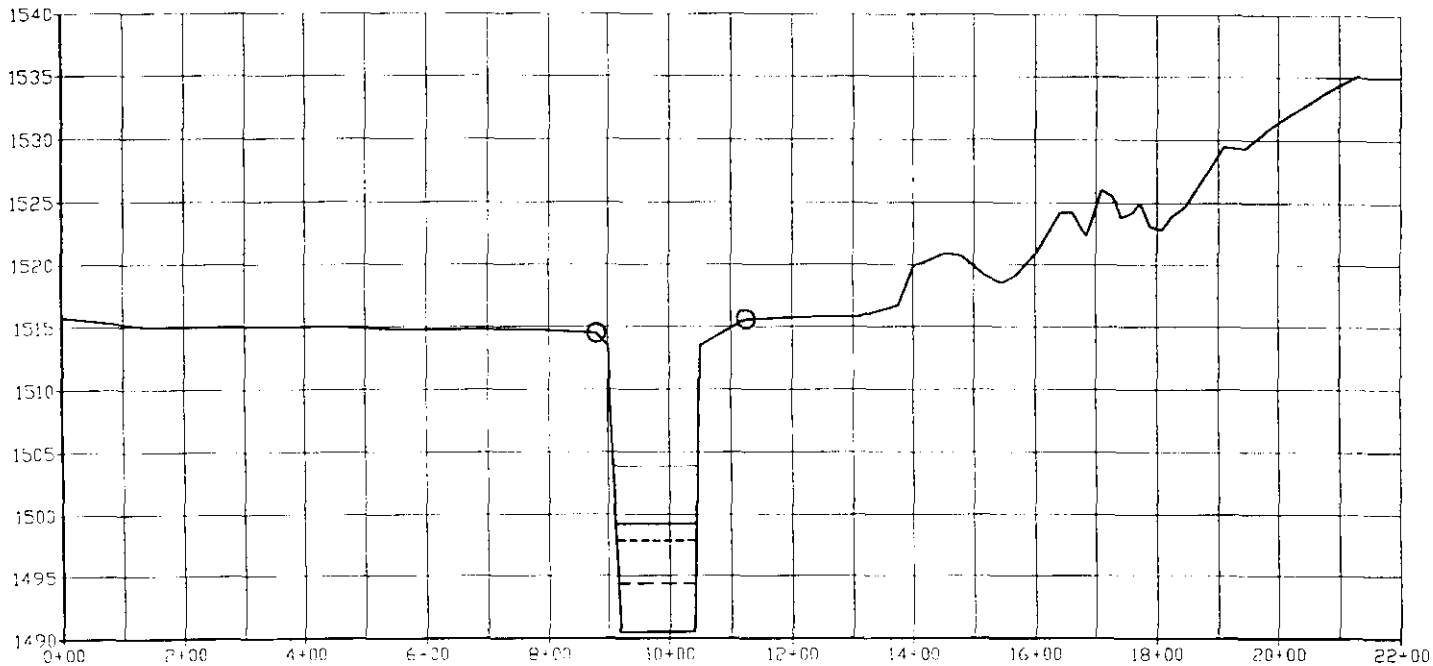
246

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1492.68 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1495.53 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1496.66 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1500.19 ft



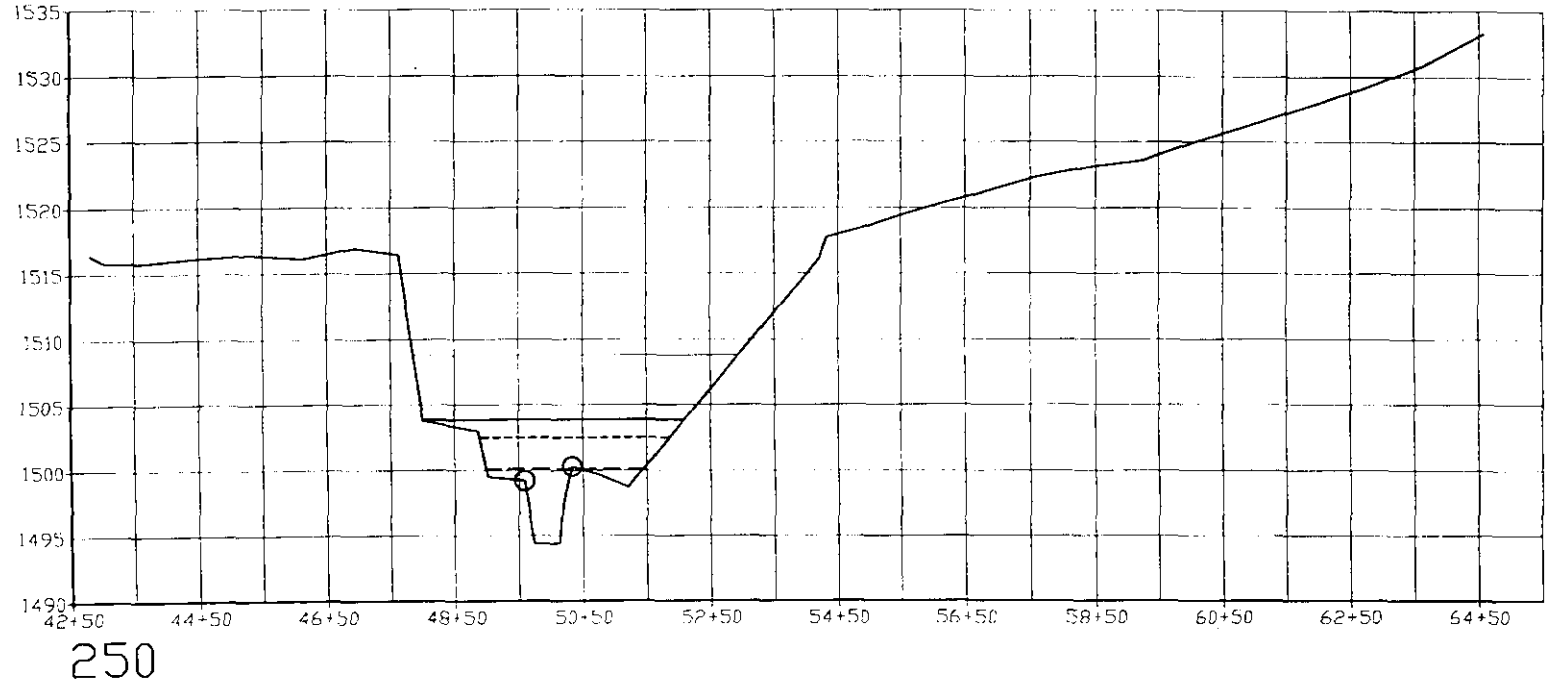
248

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1494.39 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1497.84 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1499.24 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1503.86 ft

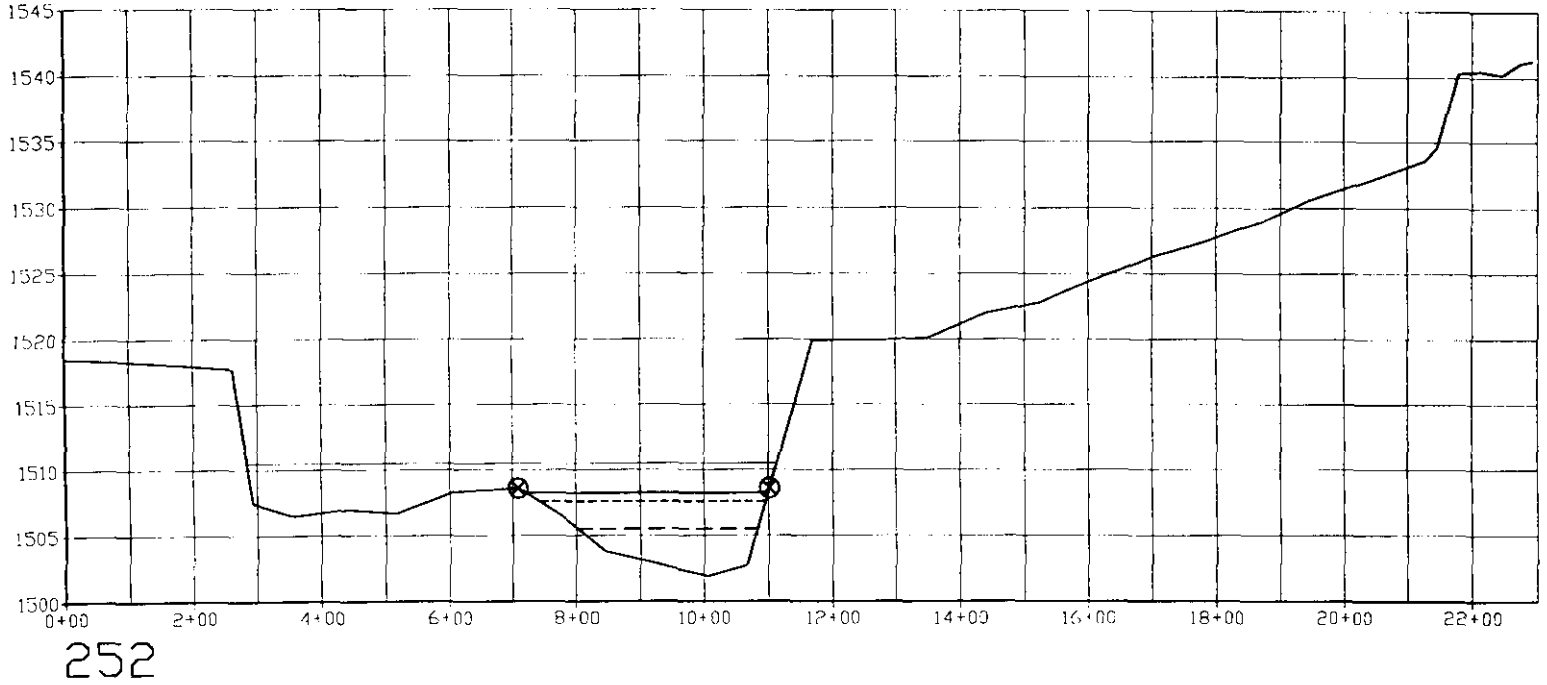


Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1500.10 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1502.51 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1503.86 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1508.74 ft



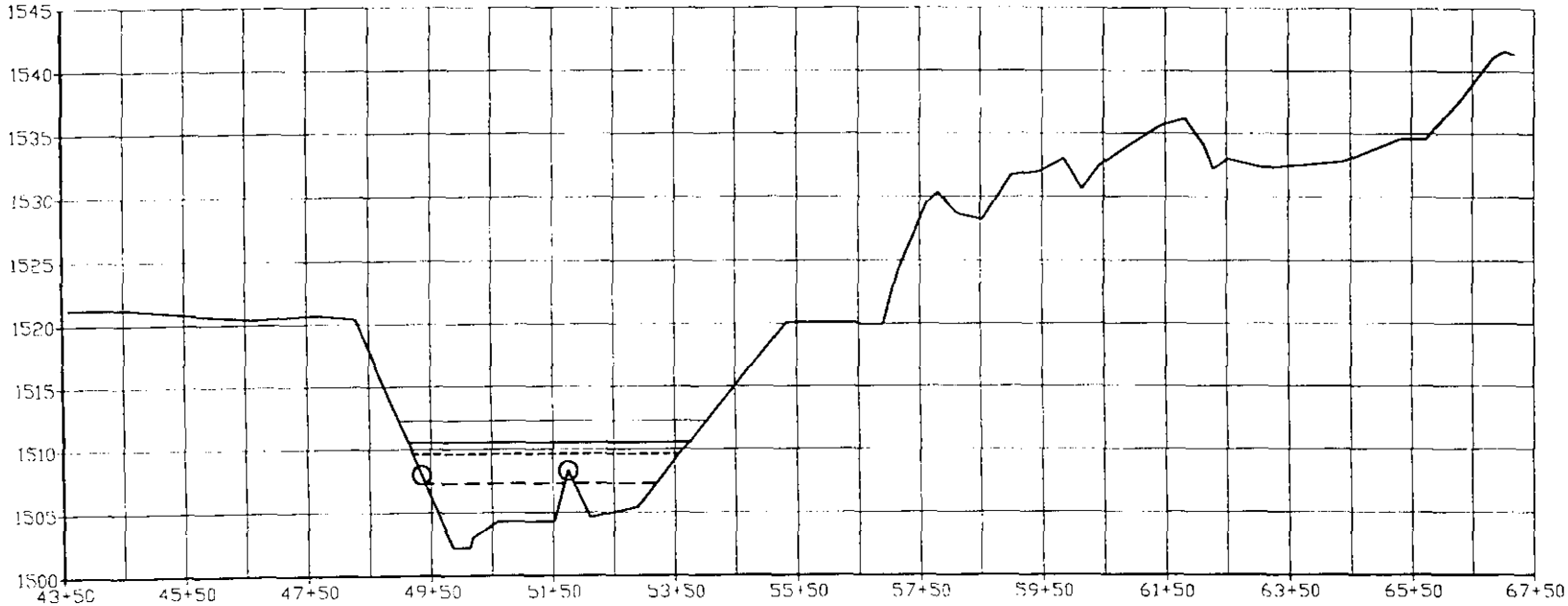
252

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1505.50 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1507.61 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1508.21 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1510.51 ft



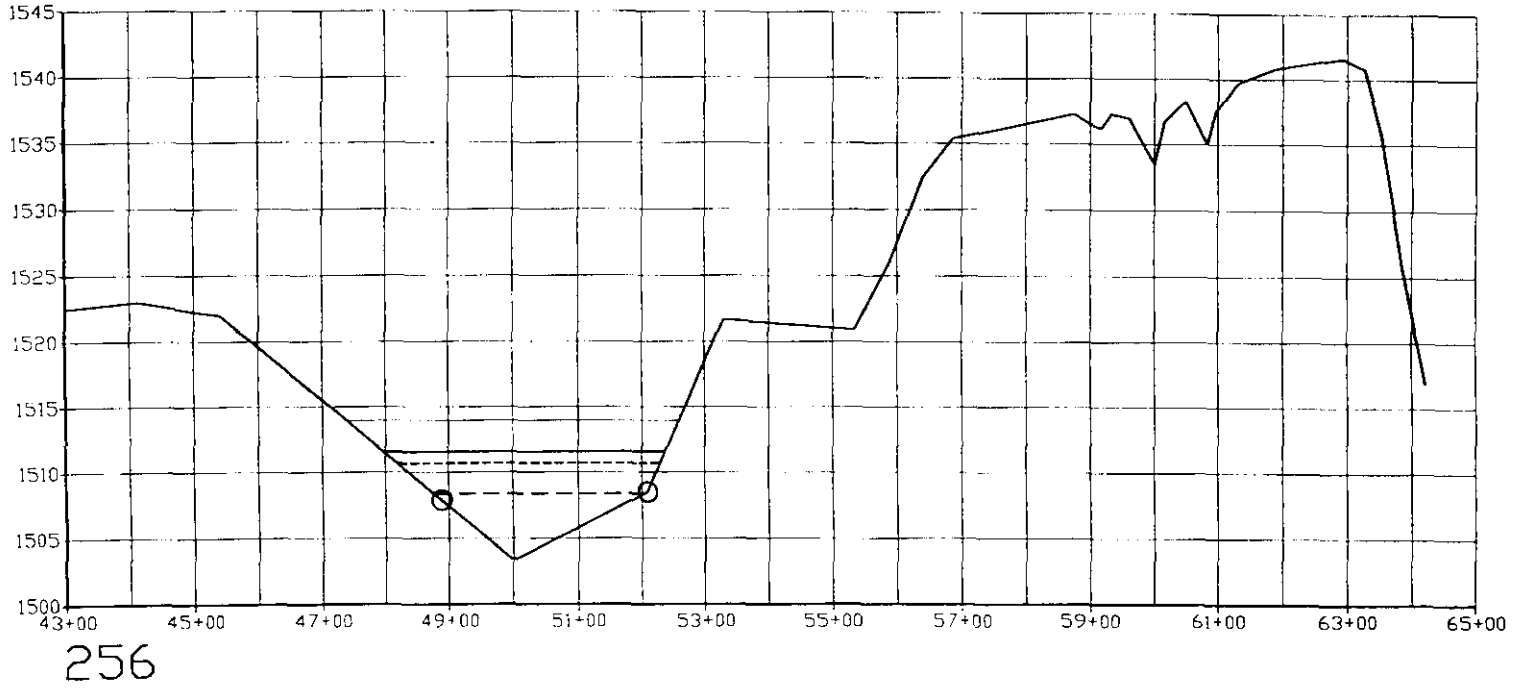
254

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1507.27 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1509.65 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1510.55 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1512.30 ft



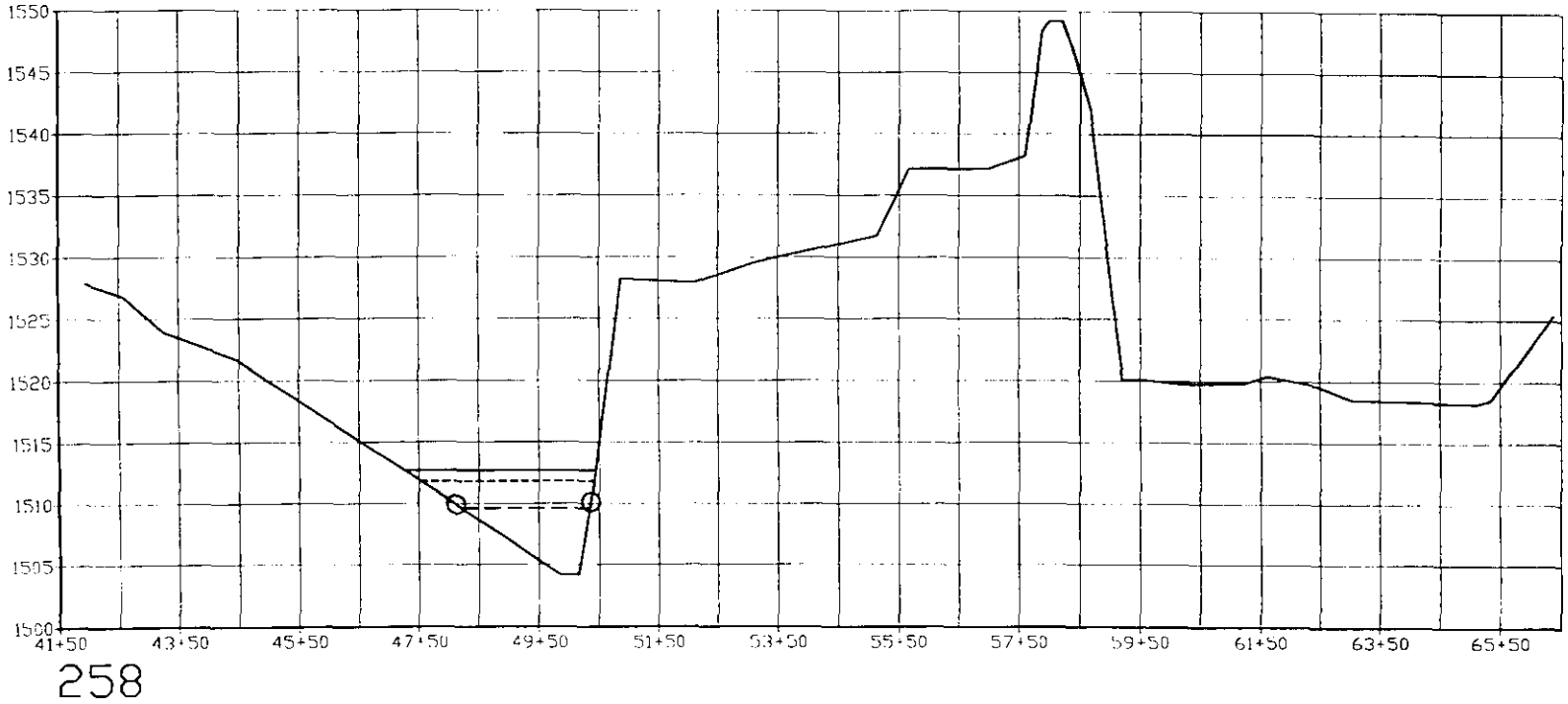
256

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1508.38 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1510.69 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1511.60 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1513.95 ft



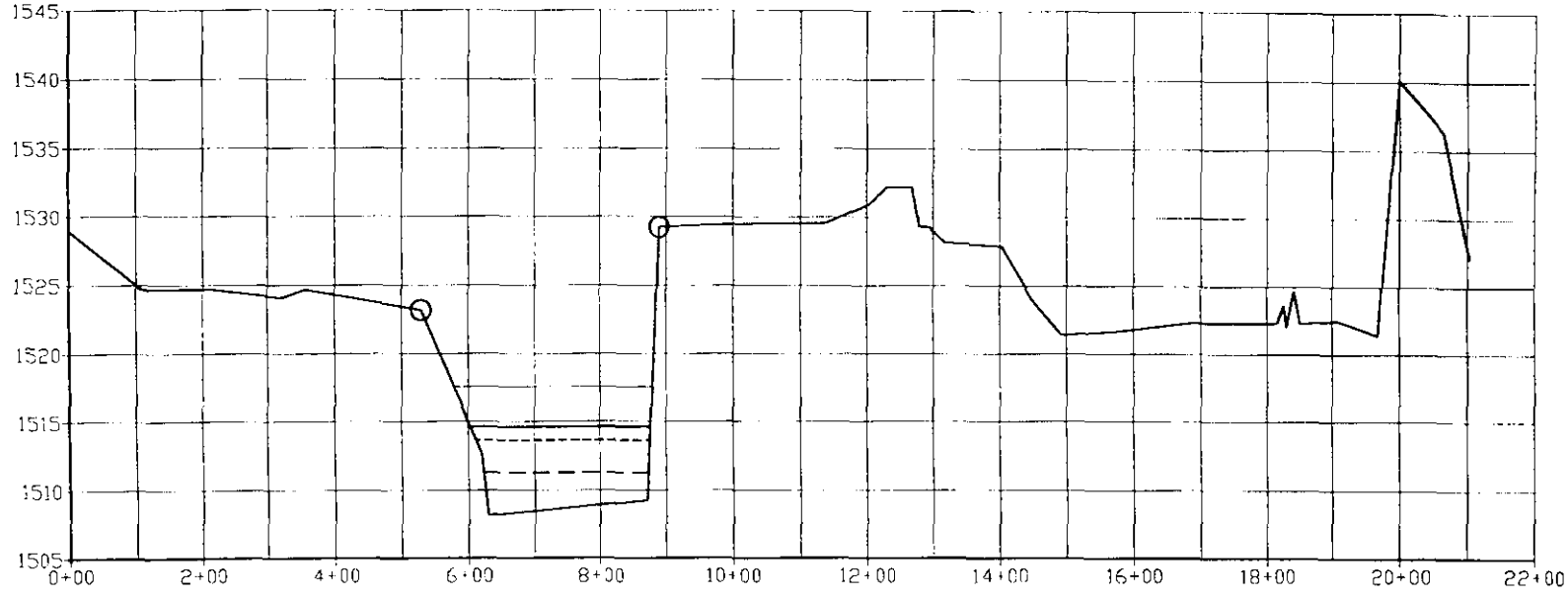
258

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1509.59 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1511.81 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1512.65 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1515.06 ft

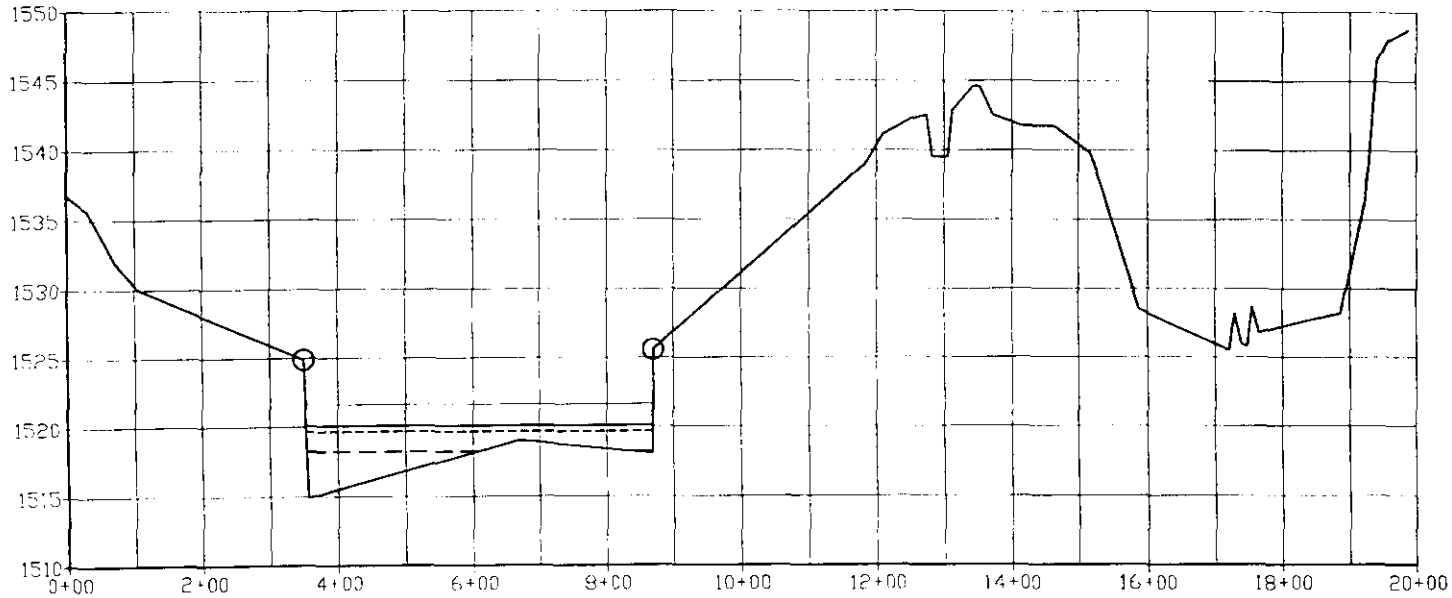


Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1511.23 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1513.67 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1514.64 ft

Profile 4
Flow Discharge = 24000.00 cfs
- —— 500-YEAR WSEL = 1517.58 ft



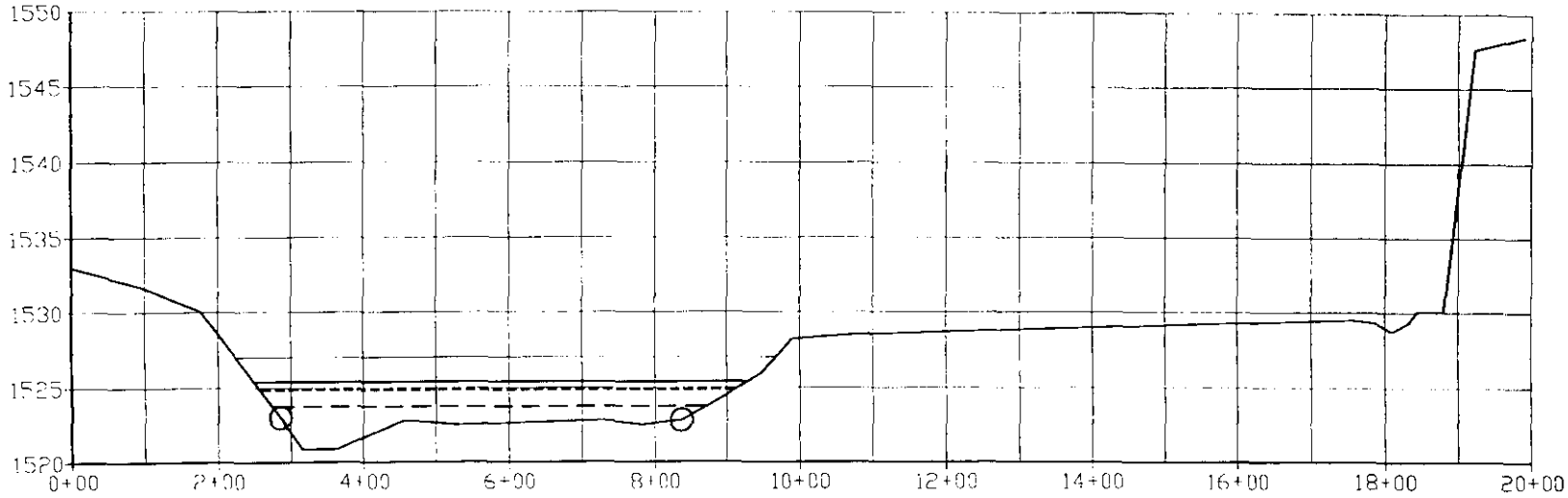
262

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1518.26 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1519.68 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1520.09 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1521.62 ft



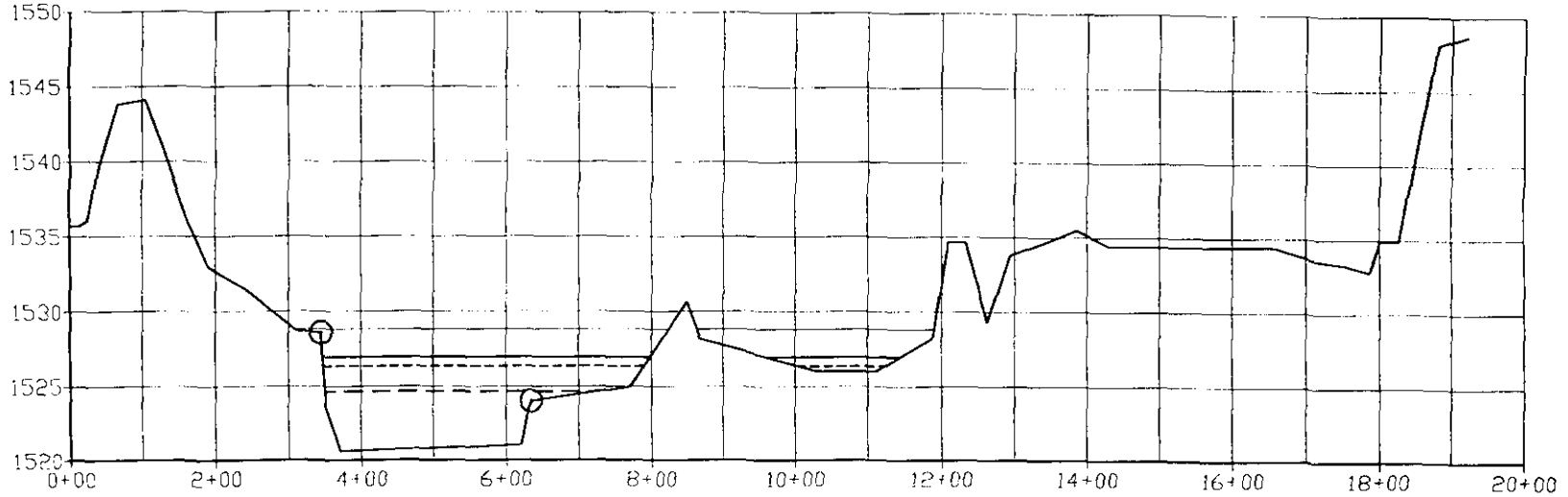
264

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1523.71 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1524.84 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1525.35 ft

Profile 4
Flow Discharge = 24000.00 cfs
— — 500-YEAR WSEL = 1526.98 ft



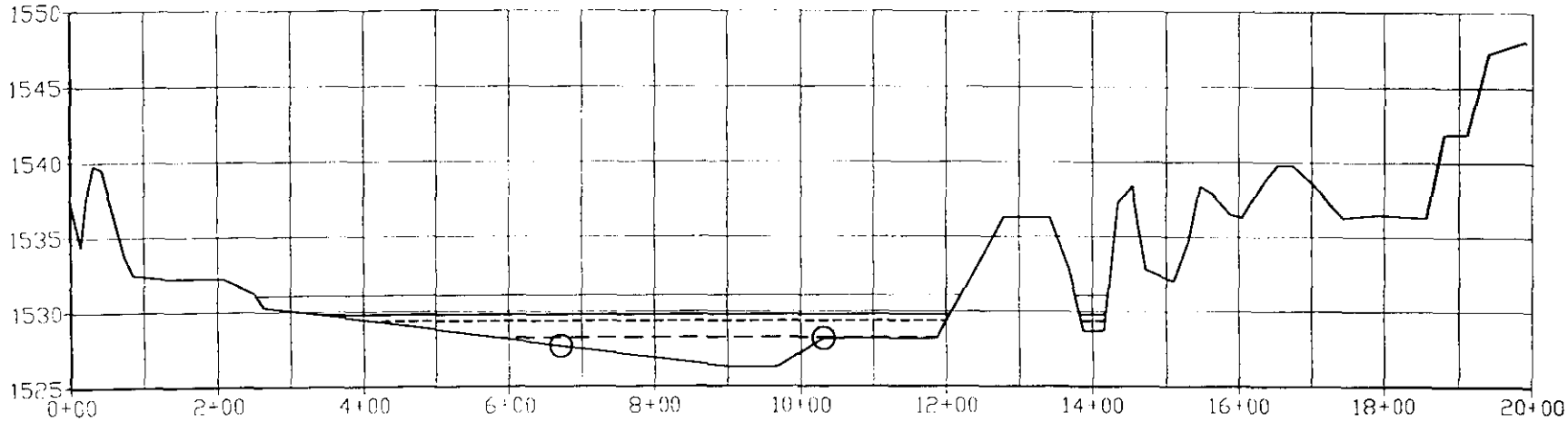
266

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1524.65 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1526.31 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1526.93 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1528.83 ft



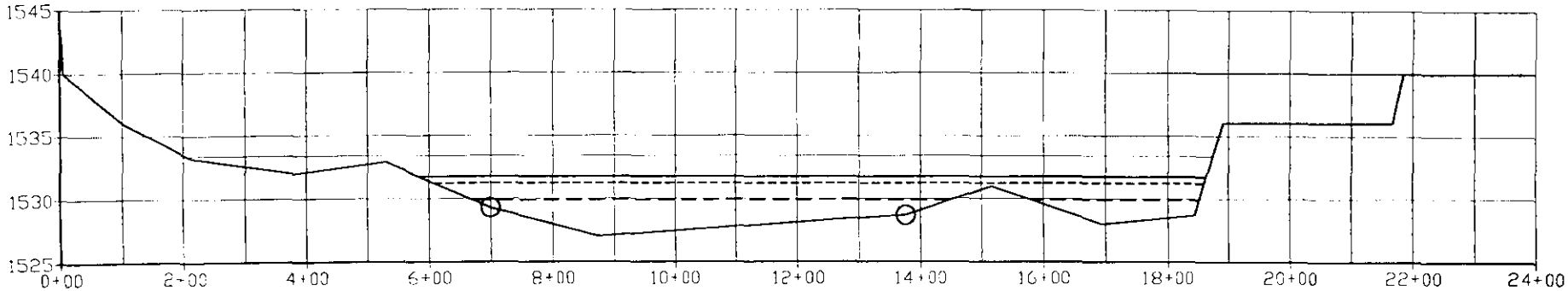
268

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1528.28 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1529.36 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1529.76 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1531.09 ft



270

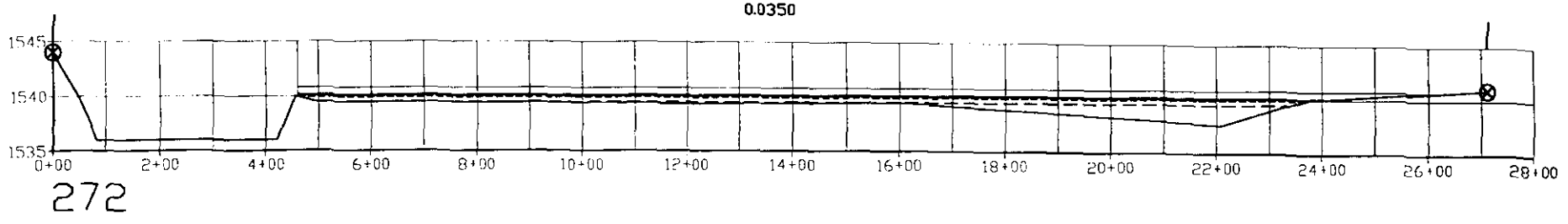
Telephone Line Road Crossing, Culverts assumed blocked

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1529.89 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1531.25 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1531.79 ft

Profile 4
Flow Discharge = 24000.00 cfs
– 500-YEAR WSEL = 1533.39 ft

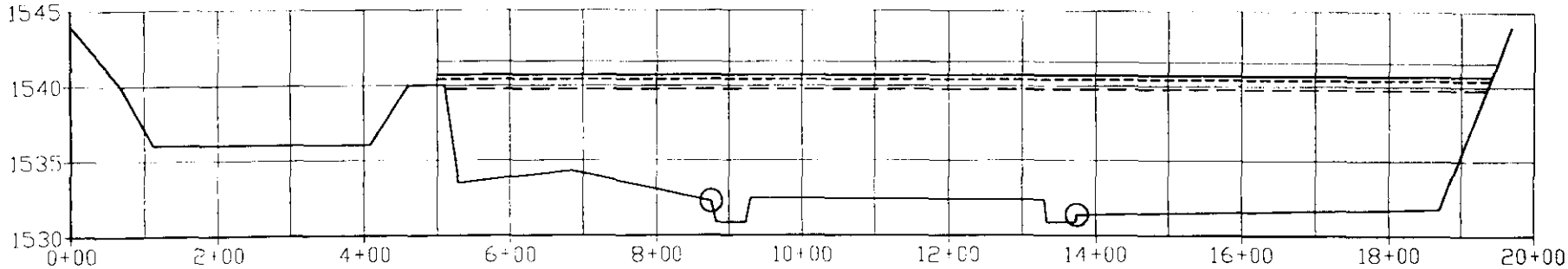


Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1539.47 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1539.92 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1540.10 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1540.79 ft



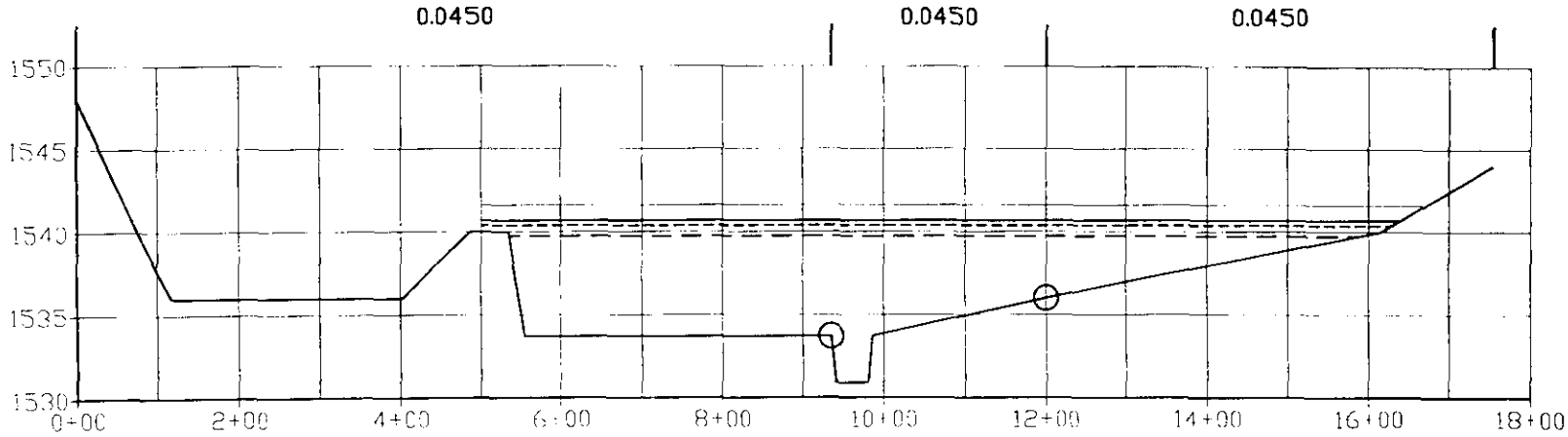
274

Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1539.73 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1540.39 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1540.68 ft

Profile 4
Flow Discharge = 24000.00 cfs
··· 500-YEAR WSEL = 1541.61 ft



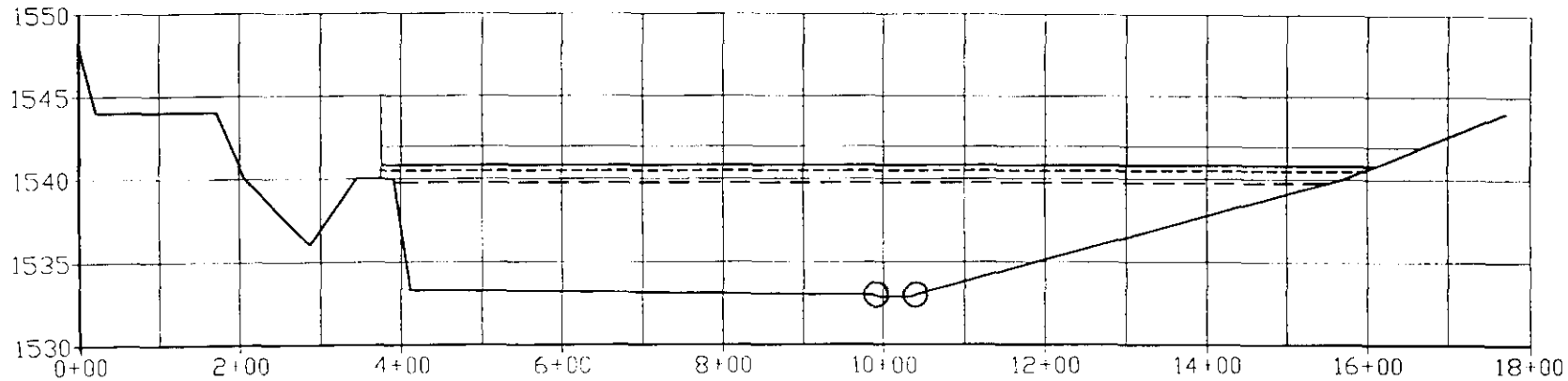
276

Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1539.73 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1540.39 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1540.67 ft

Profile 4
Flow Discharge = 24000.00 cfs
· · 500-YEAR WSEL = 1541.58 ft



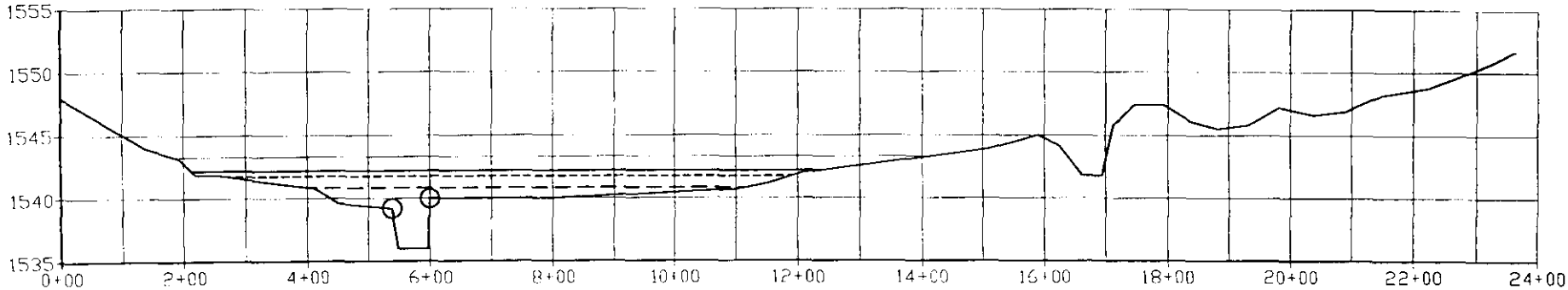
278

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1539.75 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1540.47 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1540.80 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1541.94 ft



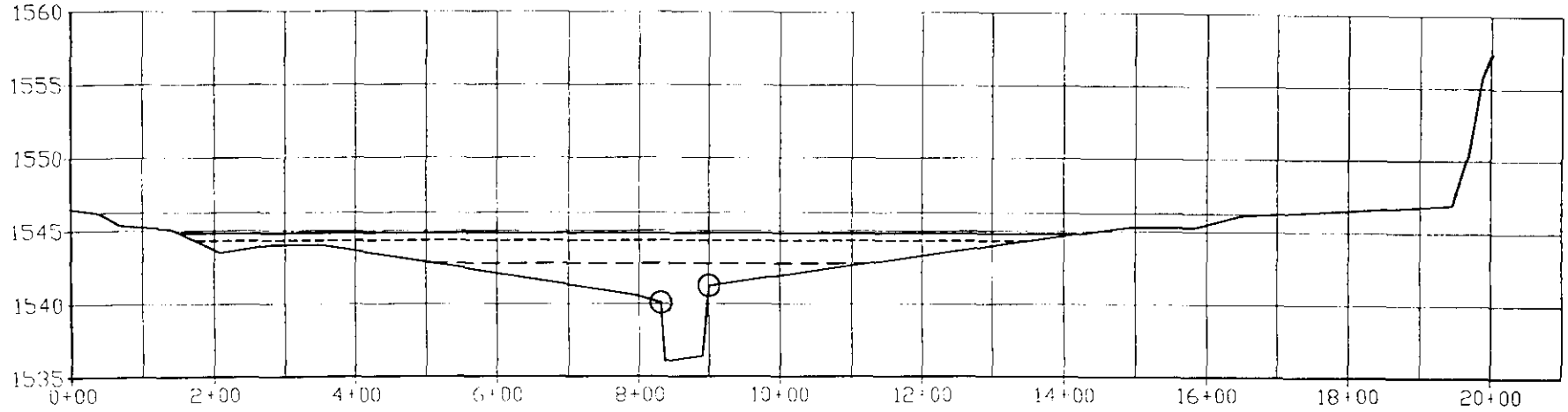
280

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1540.87 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1541.78 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1542.19 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1543.29 ft



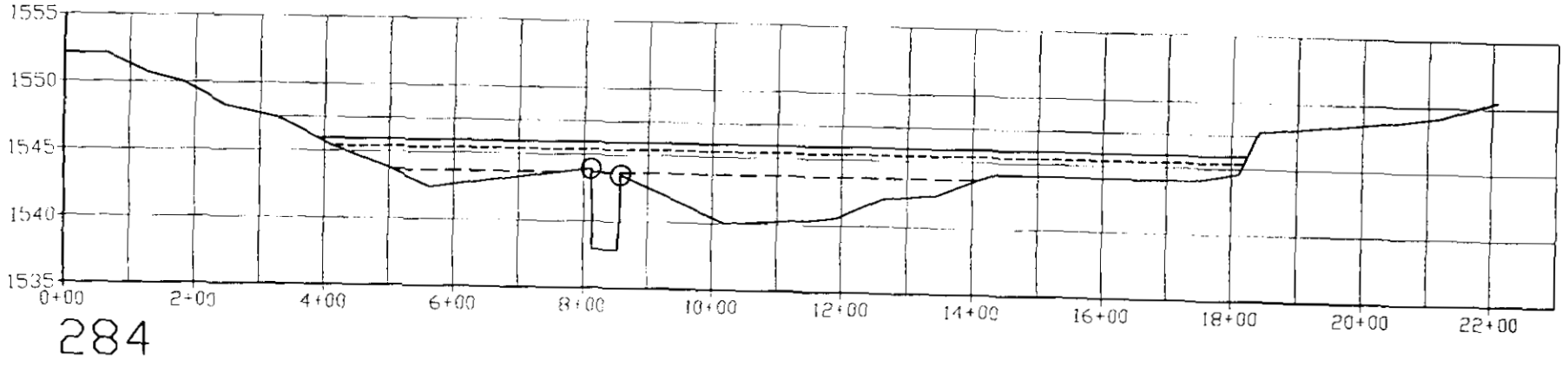
282

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1542.75 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1544.34 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1544.80 ft

Profile 4
Flow Discharge = 24000.00 cfs
· —— 500-YEAR WSEL = 1546.22 ft



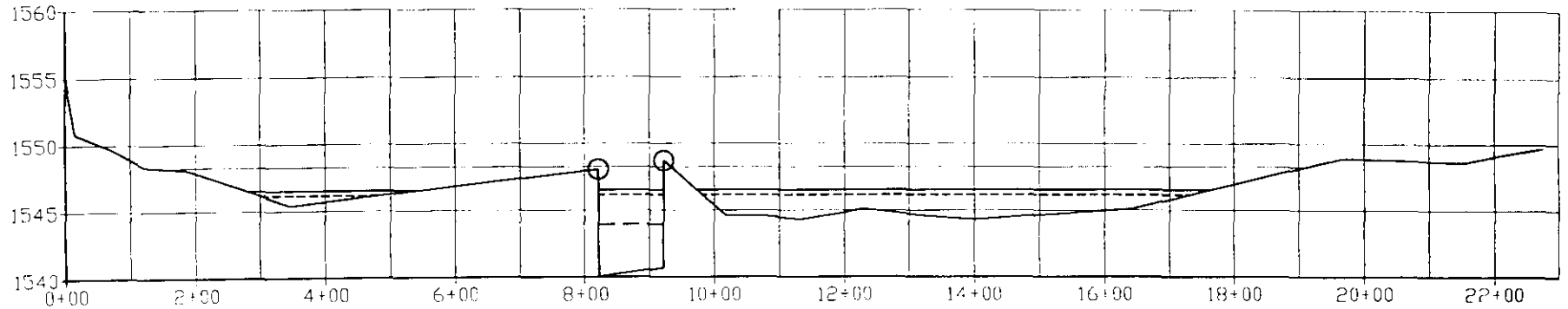
284

Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1543.63 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1545.36 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1545.91 ft

Profile 4
Flow Discharge = 24000.00 cfs
– — 500-YEAR WSEL = 1547.47 ft



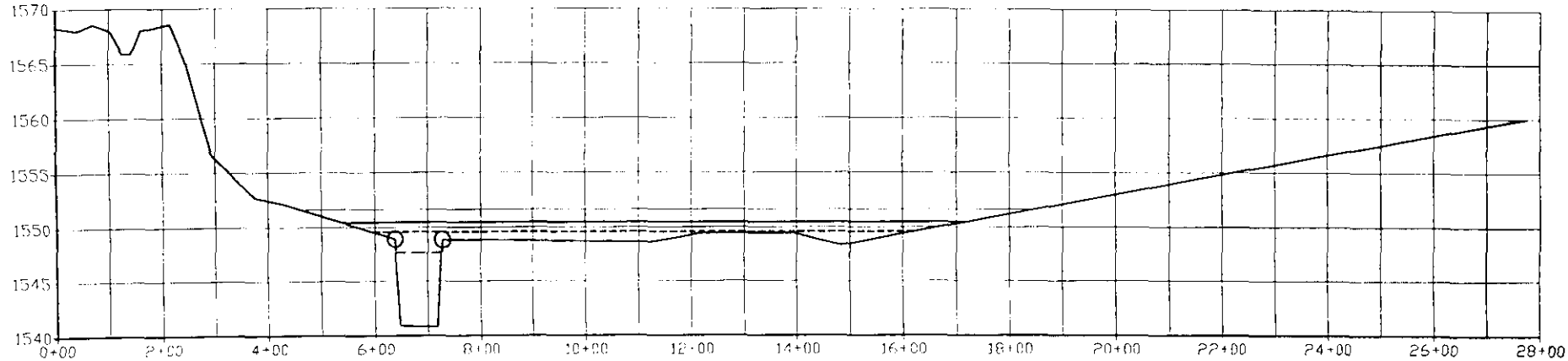
286

Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1543.94 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1546.14 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1546.53 ft

Profile 4
Flow Discharge = 24000.00 cfs
· · · 500-YEAR WSEL = 1548.25 ft



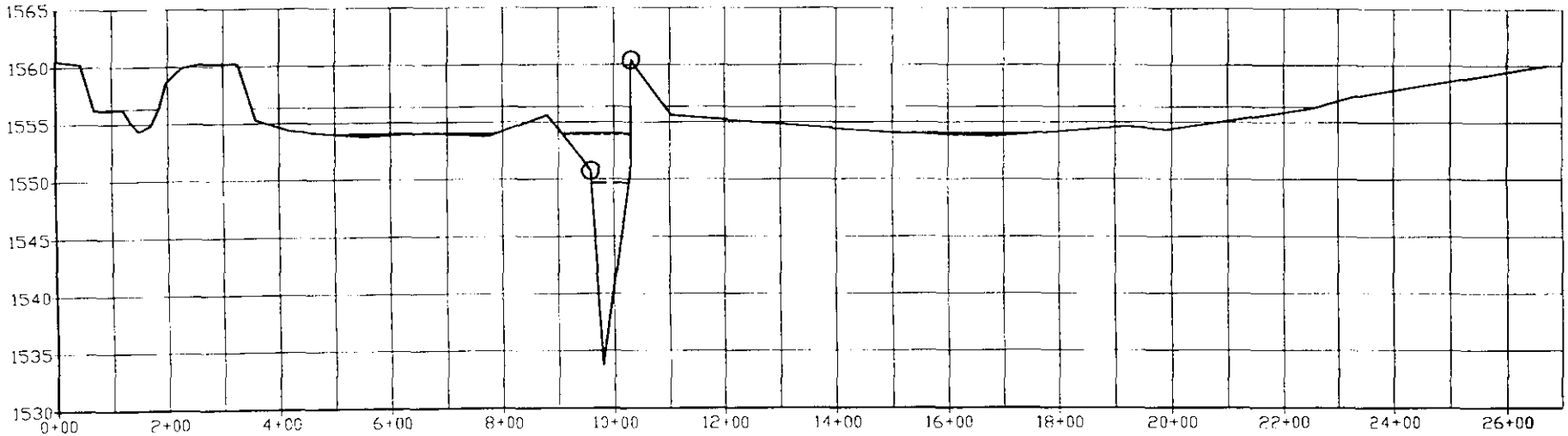
288

Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1547.64 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1549.56 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1550.44 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1551.63 ft



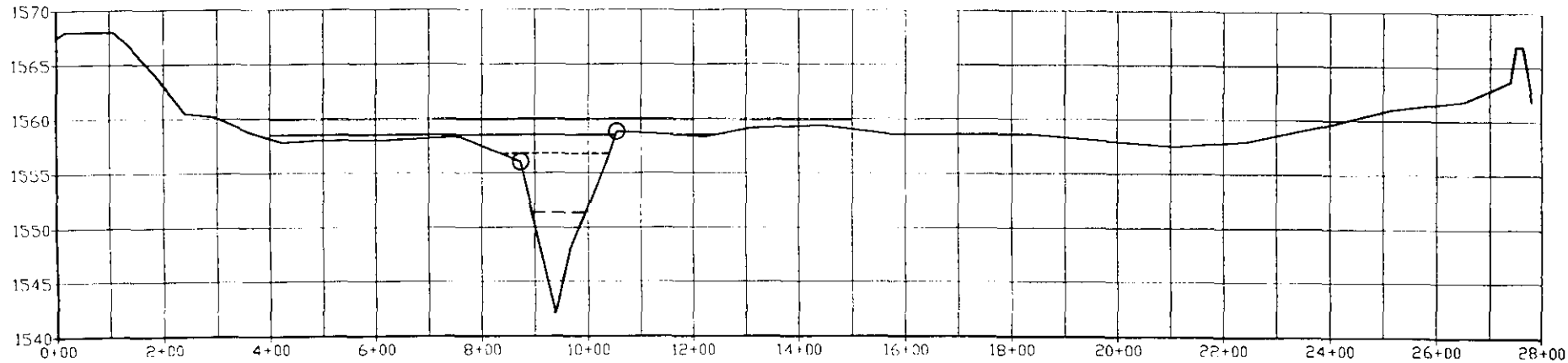
292

Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1549.65 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1553.84 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1553.95 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1556.33 ft



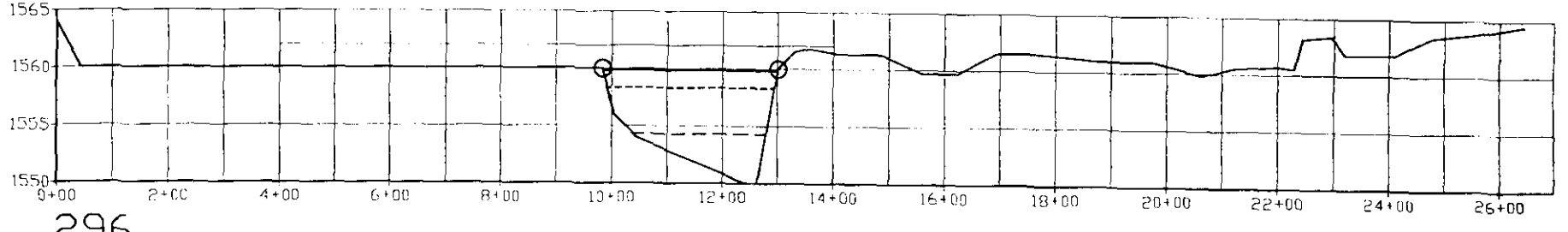
294

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1551.35 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1556.74 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1558.47 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1559.86 ft



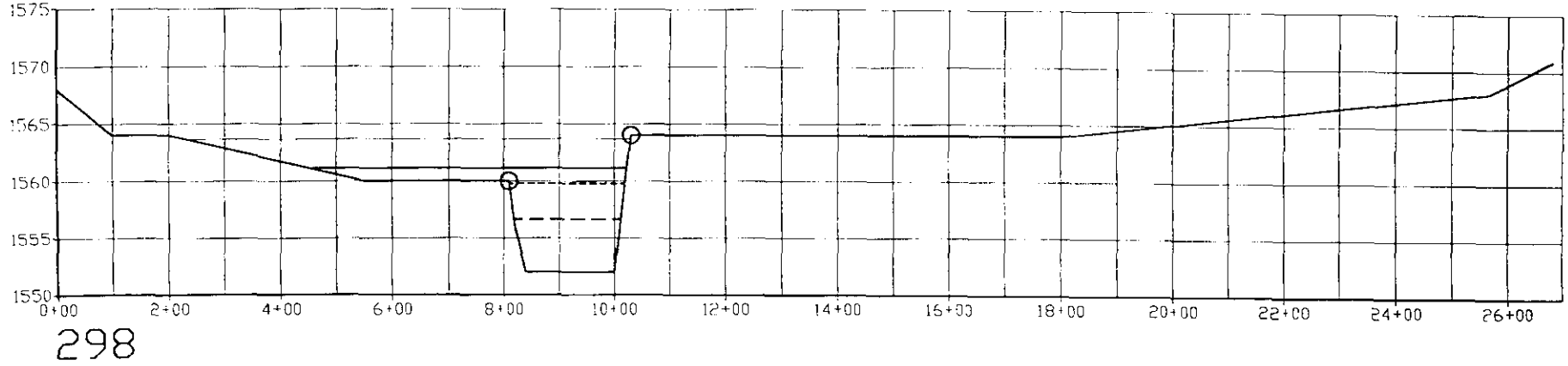
296

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1554.28 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1558.27 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1559.80 ft

Profile 4
Flow Discharge = 24000.00 cfs
— — 500-YEAR WSEL = 1561.98 ft

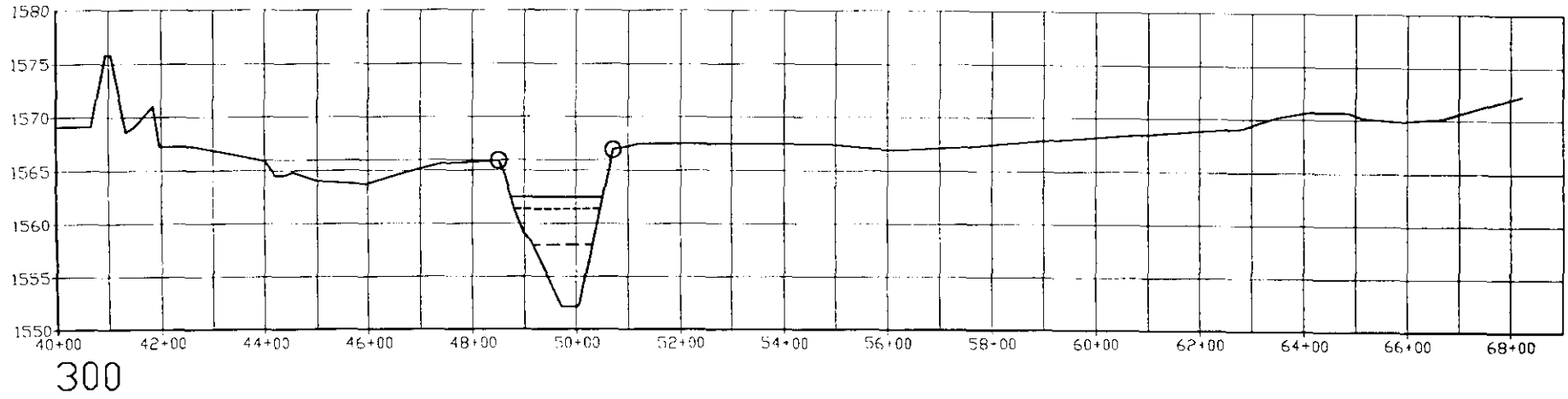


Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1556.65 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1559.76 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1561.11 ft

Profile 4
Flow Discharge = 24000.00 cfs
——— 500-YEAR WSEL = 1563.63 ft

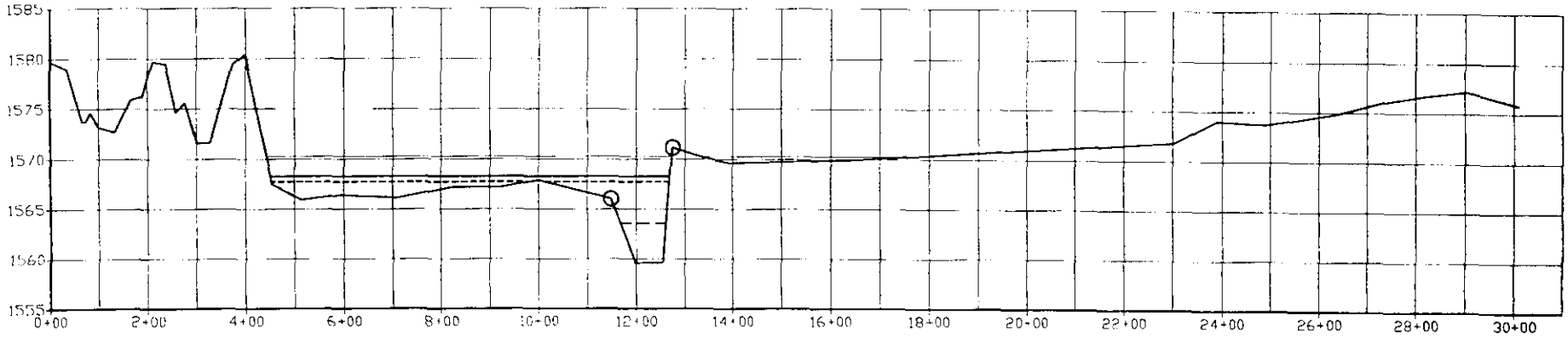


Profile 1
Flow Discharge = 3000.00 cfs
~ — — 10-YEAR WSEL = 1558.00 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1561.38 ft

Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL = 1562.50 ft

Profile 4
Flow Discharge = 24000.00 cfs
— 500-YEAR WSEL = 1565.96 ft



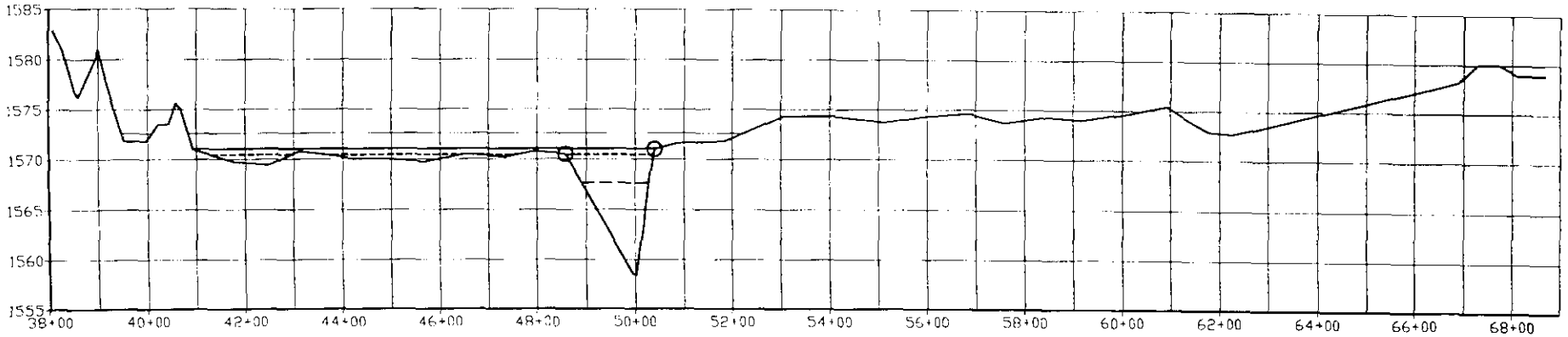
302

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1563.52 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1567.71 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1568.29 ft

Profile 4
Flow Discharge = 24000.00 cfs
—— 500-YEAR WSEL = 1570.26 ft



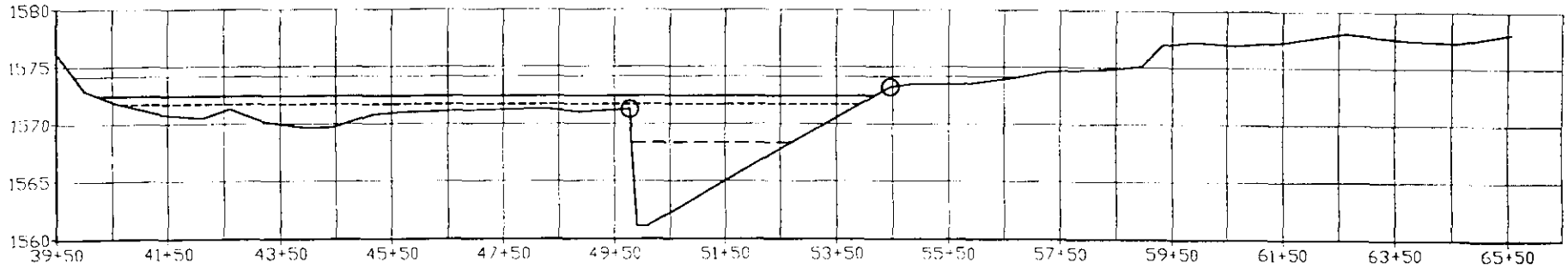
304

Profile 1
Flow Discharge = 3000.00 cfs
– – – 10-YEAR WSEL = 1567.64 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1570.46 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1571.03 ft

Profile 4
Flow Discharge = 24000.00 cfs
— — 500-YEAR WSEL = 1572.56 ft



306

Profile 1
Flow Discharge = 3000.00 cfs
- - - 10-YEAR WSEL = 1568.33 ft

Profile 2
Flow Discharge = 8500.00 cfs
----- 50-YEAR WSEL = 1571.71 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL = 1572.43 ft

Profile 4
Flow Discharge = 24000.00 cfs
..... 500-YEAR WSEL = 1574.13 ft

HYDRAULIC ANALYSES

HEC-2, Lake Las Vegas to Duck Creek – Floodway

LVDUCKFW.DAT

2Bb7 CID32003 001

Study Contractor: Nolte & Associates, Inc.

HYDRAULIC MODELS INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Lake Las Vegas to Duck Creek - Floodway	2Bb7 CID 32003	002

```
1*******************************************
 *  HEC-2 WATER SURFACE PROFILES           *
 *                                         *
 *  Version   4.6.0;  February 1991        *
 *                                         *
 *  RUN DATE    25JAN99    TIME   17:33:56  *
 *******************************************
```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 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  HYDROLOGIC ENGINEERING CENTER      *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616-4687       *
 *          (916) 756-1104             *
 ***************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X
XXXXXXX  XXXX      X          XXXXX    XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX   XXXXX             XXXXXXX

1
   25JAN99      17:33:56                                                    PAGE    1


                                                    THIS RUN EXECUTED 25JAN99    17:33:56

 ************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
 ************************************


T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Lake Las Vegas to Duck Creek
T2      Nolte and Associates, Jan 1998
T3      Boundary condition: Lake Las Vegas weir elev. = 1417
T4      based on Lake Las Vegas Parkway Ext. Plans by Montgomery Watson, 1997

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                2                             -1                            11500     1417

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1                 -1                                                  -6

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150                 200

J5  LPRNT     NUMSEC                      ********REQUESTED SECTION NUMBERS********

    -10       -10

NC    0.035     0.035     0.03      0.1       0.3
X1      100         9    383.4     637.6
GR     1430         0     1425        44      1425     383.4      1417     383.5      1417     637.5
GR     1425     637.6     1425       787      1426       790      1430       820

X1      105        17      376       620         1         1         1
X3        0                          383.5      1430     637.5      1430
GR     1430         0     1420        95      1420       325      1410       362      1408       370
GR     1408       378     1406       470      1406       605      1408       620      1410       635
GR     1411       643     1412       650      1416       688      1416       745      1420       765
GR     1426       790     1430       820

X1      202        28    258.8     995.4       240       210       225
X3        0                          420      1430
GR  1437.7         0  1437.7        28    1438.2      44.2    1432.3      65.7    1429.9      97.3
GR  1428.5     124.4  1424.2     147.4      1421     162.6    1420.1       195    1418.8     208.8
GR  1417.2     234.9  1416.2     258.8    1416.2     432.9    1416.2     505.1    1416.2     954.5
GR  1418.3     961.7  1419.1     977.4    1424.2     995.4    1424.2    1018.8    1432.8    1044.3
GR  1440.4    1061.5  1452.3    1092.7    1460.1    1115.6    1460.1    1205.2    1458.4    1235.3
GR  1457.6    1268.3  1457.6    1302.8    1458.2     1332.2

1
   25JAN99      17:33:56                                                    PAGE    2


X1      204        33    143.1    1108.5       420       450       524
X3        0                          650      1430
GR     1430         0  1424.2      66.5    1425.6      89.6    1426.1     143.1    1424.2     150.4
GR  1421.3     156.1  1420.2     166.2    1417.8       174    1416.2     183.3    1412.9     187.8
GR  1412.9     196.4  1412.4     785.6    1416.2     955.4    1416.2    1077.6    1417.5    1091.7
GR  1420.2    1098.7  1422.3    1108.5    1425.3    1119.8      1428    1130.3    1430.2    1141.4
GR  1430.2    1161.5  1432.3    1172.5    1432.3    1180.8    1436.3    1199.4    1440.1    1214.8
GR  1444.2    1226.5  1454.7    1252.1    1453.9    1266.9    1452.3    1291.8      1452    1308.2
GR  1449.8    1319.2  1449.8    1371.7    1449.8    1415.8

X1      206        32      4858   5199.6       379       400       410
```

GR	1426.7	4324.9	1426.7	4355.9	1426.7	4374.1	1428.2	4415	1426.7	4485.7
GR	1426.7	4524.2	1426.7	4580.8	1426.7	4634.3	1426.7	4690.4	1426.7	4744.7
GR	1426.7	4799.3	1426.7	4858	1425.5	4881.6	1422	4914.3	1414	5000
GR	1414.8	5038.2	1416.1	5057.9	1416.1	5082.7	1416.1	5149.5	1426.2	5199.6
GR	1440	5269.6	1444.3	5292.4	1448.4	5322.4	1451.1	5359.7	1452.1	5372.8
GR	1452.1	5414.2	1450	5428.7	1450	5440.8	1452.7	5455.3	1452.7	5477.5
GR	1449.7	5503.7	1452.1	5513.6						
X1	208	32	460	655	401	440	443			
GR	1432.8	0	1439.8	30.8	1439.8	42.2	1436	50.4	1432.2	71.6
GR	1430.9	119.1	1430.1	154	1429.6	198.8	1430.1	269.4	1428.8	330.5
GR	1429	373.6	1438.4	460	1419.4	465	1424.7	650	1433.2	655
GR	1430.4	765.9	1430.6	812.9	1432.2	849.3	1433.9	881.5	1437.1	915.4
GR	1440.3	958.7	1445.2	1002.5	1450	1039.3	1455.1	1067.8	1456.2	1081.6
GR	1456.7	1099	1456.7	1116.3	1455.6	1175.7	1457	1198.3	1457	1226.2
GR	1460.2	1256.7	1464.2	1310.1						
NC	0.04	0.04	0.035							
ET		9.1	7.1				175	460	0	1148.4
X1	210	24	175	460	400	350	369			
GR	1448.1	0	1444.6	7.3	1439.8	19.7	1436.8	33.9	1436	74.2
GR	1435.7	128.1	1437.6	175	1418.6	180	1414.4	455	1438.4	460
GR	1439	545	1441.1	938.5	1442.5	977.1	1444.1	999.7	1451.3	1023.4
GR	1456.4	1039.9	1459.9	1051.3	1459.9	1065	1460.5	1089.3	1460.2	1098.8
GR	1465	1111.9	1472.6	1124.3	1476.1	1135.1	1478.8	1148.4		
ET		9.1	7.1				80	360	0	1099.9
X1	212	18	80	360	470	400	471			
GR	1462.6	0	1453.5	17.5	1444.3	46.3	1443.5	57.9	1442.7	77.3
GR	1444.3	80	1417.3	100	1421.2	350	1442.2	360	1442.7	411.7
GR	1443	477.8	1442.5	530	1444.9	960.3	1447	981.4	1460.2	1027.6
GR	1460.2	1049.5	1454.8	1073.2	1461.3	1099.9				
ET		9.1	7.1				320	500	0	1115.7
X1	214	30	320	500	515	490	590			
GR	1456.2	0	1453.5	56.9	1451.9	98.6	1451.1	145.5	1451.1	194.3
GR	1452.1	243.4	1452.4	286.6	1452.7	303.6	1453	320	1423	330
GR	1423.2	490	1456.2	500	1453.5	513.4	1453.5	550.7	1453.6	606
GR	1454.3	649	1456.2	711.4	1456.7	766.3	1457.8	821.5	1458.6	875.3
GR	1459.7	936.7	1460.5	995.8	1465	1014.3	1465	1036.4	1461	1047.8
GR	1461	1069.8	1462.6	1073.7	1462.3	1083.3	1462.1	1093.4	1460.5	1116.7

NC	0.045	0.045	0.045							
ET		9.1	7.1				195.67	552.61	0	1041.4
X1	216	55	203.4	273.5	532	465	560			
GR	1477.4	0	1464.2	37	1462.3	57.5	1461.3	98.8	1461	146.8
GR	1459.1	173.4	1455.1	176.3	1451.6	179.7	1440.9	184.6	1440.3	190.6
GR	1435.2	193.6	1430.6	197	1426.6	200.1	1424.2	203.4	1422	209.8
GR	1421.2	211.9	1421.2	252.6	1422.6	260.4	1422.6	267.2	1424.2	273.5
GR	1424.2	286.6	1424.2	299.2	1424.5	310.3	1427.9	502.9	1428.1	511.4
GR	1428.5	521	1429.8	530.4	1429.8	536	1431.2	546.7	1432.8	553.9
GR	1440	558.4	1443.5	561.8	1447.6	567.6	1451.6	573	1456.4	579.7
GR	1460.2	586	1464	589.4	1465	597.7	1465.8	605.1	1466.4	623.3
GR	1467.5	652.7	1468.3	685.5	1468.5	721.3	1469.6	768.6	1469.6	808.9
GR	1468.3	811.9	1468.3	820.8	1469.3	830.1	1469.6	873.4	1468.5	908.3
GR	1468.3	918.9	1468.3	945.9	1470.2	958	1470.4	1005.8	1470.1	1041.4
X1	218	21	230	607	520	460	830			
GR	1507.8	0	1497	48.5	1488.2	83	1476.1	121	1475.2	136
GR	1469.1	157.2	1468.8	199.9	1469.1	230	1468.3	230.9	1434.6	240
GR	1450	593	1465	607	1472.3	775.4	1473.4	837.2	1472.6	874.3
GR	1472.3	888.4	1472.6	922.3	1475.1	981.6	1474.7	1013.7	1476.9	1026.3
GR	1480.6	1041.3								
X1	220	22	390	751.9	480	503	738			
GR	1495.4	0	1483.6	42.8	1472.8	81.1	1472.6	135.8	1472.6	213.7
GR	1472.8	261.1	1472.8	316.1	1473.1	356.1	1473.2	390	1438.2	400
GR	1441.2	750	1472.3	751.9	1472.6	792.7	1473.6	798.8	1473.4	817.6
GR	1473.6	854.2	1476.9	872.7	1477.7	918.2	1479.3	925.5	1478.9	952.9
GR	1477.4	994.9	1474.2	1039.7						
X1	222	24	663	961.1	420	530	511			
GR	1484.4	0	1478.2	65.4	1477.1	134.5	1477.1	201.1	1476.6	264.9
GR	1476.6	331.4	1477.1	395.4	1477.7	456.5	1477.1	461	1477.1	524
GR	1475	566.8	1475.9	663	1445.9	673	1452	960	1477.9	961.1
GR	1478	965	1463.2	1047	1464.8	1077.6	1468	1143.5	1468.5	1161.4
GR	1480.6	1196.6	1480.6	1211.9	1468.3	1256.8	1469.1	1298.6		
X1	224	21	624	924	495	440	507			
GR	1486.4	0	1484.8	20	1484.5	93.7	1483.7	133.9	1484	209.4
GR	1484	272.7	1484	349.8	1485	420.4	1484.5	495	1483.4	568.5
GR	1482.9	612.7	1481.88	624	1449.88	634	1439.47	914	1480.47	924
GR	1480.7	941.5	1480.2	1002.2	1482.6	1218.8	1484.2	1289.4	1486.1	1356.4
GR	1488	1423.1								
X1	226	25	674.6	1133.2	300	500	796			
GR	1485.3	0	1485.3	72.7	1485.3	147.9	1485.3	220.3	1485.6	292.4
GR	1485.6	363.2	1485.6	444.6	1485.6	508.2	1485.6	583.9	1485.6	674.6
GR	1484.1	684	1456.6	694	1450.65	1120	1483.65	1130	1484.2	1133.2

GR	1485	1214	1484.8	1267.6	1485	1280.3	1488.8	1292.9	1492.3	1334.1
GR	1493.1	1389.8	1492.3	1412.7	1492.3	1439.1	1494.7	1454	1491.3	1473

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NC	0.045	0.045	0.04							
X1	228	24	635	1086	440	560	615			
GR	1488.3	0	1488.5	77.2	1487.2	148.9	1487.7	228.1	1487.5	304.1
GR	1487.2	382	1487.7	456.5	1487.5	537.1	1488	599.5	1487.68	635
GR	1462.7	645	1463.28	1075	1488.28	1085	1488.3	1086	1487.7	1155.1
GR	1488.3	1226.8	1489.9	1306	1490.7	1327.6	1495.3	1383.9	1498.2	1436.3
GR	1498.8	1473.8	1504.1	1498.2	1500.1	1514.8	1498.8	1532.2		
X1	230	22	705	1005	540	450	513			
GR	1493.9	0	1492.8	78	1492.6	150.4	1492.3	215.9	1491.8	291.2
GR	1491.2	481	1491.2	550.9	1491.5	585.6	1490.74	705	1460.47	710
GR	1460.5	990	1490.47	1005	1489.9	1105.7	1489.6	1166.9	1490.2	1236.3
GR	1492	1311.3	1492.6	1347.1	1496.1	1370	1499	1391.1	1499	1417
GR	1496.1	1427.3	1496.2	1453.7						
X1	232	21	650	1034.8	460	445	470			
GR	1494.5	0	1495.3	37.4	1496.8	66.5	1499	88.2	1494.5	114.4
GR	1494.5	137.1	1494.2	204.9	1493.9	277.4	1494.2	344	1494.7	398.3
GR	1493.6	650	1451.6	660	1451.6	710	1492.3	1034.8	1492.64	1050
GR	1493.1	1091.3	1494.5	1150.2	1495	1209	1497.8	1263.4	1503.3	1307.2
GR	1503.6	1383.4								
X1	234	24	975	1190	360	265	431			
GR	1498.2	0	1497.9	82.9	1497.4	159.1	1496.6	230.4	1496.9	294.7
GR	1496.3	368.4	1496.3	438.9	1496.1	484.5	1496.1	555.6	1495.8	737.4
GR	1495.8	812.4	1495.22	975	1465.22	985	1475.12	1180	1495.12	1190
GR	1493.9	1268.6	1495	1320.2	1497.7	1361.1	1500.1	1427.3	1501.4	1477.7
GR	1509	1496.5	1509	1570.1	1522.9	1593.2	1526.2	1638.6		
X1	236	25	1115	1345	540	550	577			
GR	1502	0	1501.4	46.6	1501.2	137.6	1500.4	227.7	1499.8	315.5
GR	1499.6	409.1	1499.6	497.8	1499	588.1	1499.8	673.4	1500.1	768.6
GR	1498.9	1115	1467.85	1130	1464.51	1330	1496.9	1339.6	1497.51	1345
GR	1499	1408.6	1501.2	1474.4	1503.6	1539.4	1505.5	1589.9	1508.2	1636.9
GR	1527.5	1691.6	1527.5	1725.1	1512.7	1757.5	1516.2	1800.7	1520	1842.9
X1	238	28	554.6	1310	450	345	693			
GR	1503.9	0	1502.5	89.5	1502.3	179.6	1502	271.2	1501.7	356.4
GR	1501.7	448.7	1502	538.2	1501.2	554.6	1501.43	560	1474.43	570
GR	1478.6	1300	1500.82	1310	1501.2	1445	1502.5	1507.9	1506.3	1517
GR	1506.5	1522.8	1505.5	1531.5	1504.7	1542.2	1504.7	1555.3	1504.9	1573.2
GR	1505.5	1587.6	1507.6	1609.3	1512.5	1650.3	1519.2	1695.2	1524.3	1732.5
GR	1540.1	1770.6	1557.3	1815.1	1559.2	1837.9				
X1	240	22	360.15	910.15	430	500	455			
GR	1504.7	0	1504.1	85.2	1503.8	174.9	1503.8	252.7	1504.1	351.7
GR	1503.9	360.15	1484.8	365.2	1476.92	370	1478	890	1503	910.15
GR	1504.1	1308.7	1504.9	1361.3	1515.7	1388.9	1516	1414.7	1516	1430.4
GR	1514.1	1451.1	1506.3	1474.2	1508.2	1501.1	1510	1532.7	1509.8	1549.3
GR	1509.5	1593.2	1510	1641.7						

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X1	242	26	4927.4	5068	590	500	810			
GR	1520.1	4318.4	1514.8	4398.6	1515.8	4439.1	1512.6	4496.4	1511.8	4540.6
GR	1508.3	4576.1	1507.5	4730	1487.7	4927.4	1482	4982.6	1482	5000
GR	1482	5015.2	1486.8	5068	1486.8	5086.3	1486.3	5143.4	1485	5201.9
GR	1509.1	5848.2	1511.8	5861.4	1512.9	5875.2	1516.7	5882.6	1523.4	5914
GR	1529.8	5945.9	1535.7	5985.8	1541.6	6020	1543.8	6032.8	1543.5	6038.3
GR	1545.1	6049.6								
X1	244	25	545	790	310	410	460			
GR	1511	0	1511	41.4	1510.7	88.8	1510.5	148.6	1508.71	220
GR	1507.1	545	1488.07	560	1488.07	780	1508.7	790	1515.8	1361.3
GR	1526.6	1394.2	1537.3	1445.2	1547.3	1487.5	1553.7	1514.8	1553.4	1524.8
GR	1558.3	1542.4	1569.3	1587.7	1576.8	1633.9	1577	1691.9	1575.4	1745.6
GR	1569.8	1803.6	1559.9	1853.3	1547.3	1929.4	1542.4	1936.1	1543.2	1951.7
X1	246	27	850	1000	500	520	550			
GR	1515.6	0	1514.8	81.7	1514	164.9	1514	234.6	1514	339.3
GR	1513.4	402.3	1513.7	478.5	1514	539.6	1513.4	609	1512.9	685.8
GR	1512.9	755.4	1512.6	795.5	1513.13	850	1488.13	860	1488.13	990
GR	1513.1	1000	1519.9	1792.7	1520.9	1869.7	1522.3	1930.7	1523.1	2014.6
GR	1523.4	2045.3	1525	2109.4	1525	2180.3	1526.3	2245.5	1527.7	2250.4
GR	1535.2	2345.5	1535.4	2355.1						
X1	248	45	880.5	1125.4	490	530	531			
GR	1515.8	0	1515	137.1	1515	241.5	1515	343.8	1515	454.1
GR	1514.8	553.1	1514.8	659.9	1514.8	767.8	1514.5	880.5	1513.52	900
GR	1490.5	920	1490.52	1040	1513.5	1050	1515.6	1125.4	1515.8	1237.2
GR	1515.8	1308.4	1516.7	1375.3	1519.9	1401.8	1520.1	1415.8	1520.9	1453.8
GR	1520.7	1480.6	1519.1	1518.3	1518.5	1546.5	1519.1	1570.5	1520.9	1601.1
GR	1524.2	1639.6	1524.2	1659.3	1523.1	1672.4	1522.3	1683.4	1523.9	1694.7
GR	1526	1708.7	1525.5	1727.1	1523.8	1740.3	1524.2	1759.1	1525	1772.4

GR	1523.1	1787.9	1522.8	1807.8	1523.9	1823.8	1524.7	1845.7	1529.5	1909.7
GR	1529.3	1944.8	1531.1	1990	1532.2	2025.8	1533.8	2077.4	1535.2	2131.8
ET		9.1	7.1				4850	5100	4281.1	6457.1
X1	250	33	4959.1	5032.9	580	584	834			
GR	1516.4	4281.1	1515.8	4303.5	1515.8	4362.1	1516.1	4431	1516.4	4529.9
GR	1516.1	4613.8	1516.9	4695.6	1516.4	4762.5	1503.8	4800.1	1503	4886.7
GR	1499.5	4900.8	1499.2	4959.1	1494.4	4973.8	1494.4	5000	1494.4	5012.6
GR	1497.6	5018.8	1500.3	5032.9	1499.7	5073.4	1498.7	5120.3	1516.1	5420.9
GR	1517.7	5433.1	1518.5	5492.2	1519.6	5560.8	1520.9	5656.7	1522.3	5756.6
GR	1523.1	5842.3	1523.6	5924.7	1525	6006.4	1526.3	6095.3	1528.2	6214
GR	1529.3	6281	1530.9	6364.1	1533.3	6457.1				
ET		9.1	7.1				450	1099.27	0	2292.1
X1	252	33	709.3	1102.2	500	530	791			
GR	1518.5	0	1518.3	94.2	1518	185.2	1517.7	262.7	1507.5	292.7
GR	1506.5	356.1	1507	442.6	1506.7	518.2	1508.3	607.1	1508.6	709.3
GR	1506.5	778.5	1503.8	844.8	1501.9	1006.5	1502.7	1065.8	1508.6	1102.2
GR	1519.9	1169.5	1519.9	1274.5	1520.1	1349.4	1522	1441	1522.8	1525.2
GR	1524.2	1592.9	1526.3	1702.1	1527.4	1782.4	1529	1873.1	1530.6	1946.3
GR	1532	2036.1	1533.6	2127.4	1534.6	2145.9	1540.3	2179.5	1540.5	2212.5
GR	1540.2	2246.8	1541.1	2273.3	1541.3	2292.1				

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ET		9.1	7.1				4930	5220	4360.8	6718.5
X1	254	47	4935.1	5175.5	490	380	628			
GR	1521.2	4360.8	1521.2	4464.8	1520.7	4577.9	1520.4	4663.6	1520.7	4766.5
GR	1520.4	4828.6	1508	4935.1	1502.2	4986.2	1502.2	5000	1502.2	5014.2
GR	1503	5018.9	1504.3	5059.1	1504.3	5123.6	1504.3	5151.8	1508.3	5175.5
GR	1504.6	5210	1505.4	5287.9	1520.1	5534.2	1520.1	5644.8	1519.9	5659.6
GR	1519.9	5691.2	1524.2	5715.7	1529.5	5761.9	1530.3	5780.2	1528.7	5813.8
GR	1528.2	5853.4	1531.7	5900	1532	5945.8	1533	5984.7	1530.6	6014.1
GR	1532.5	6044.2	1533.8	6083.4	1536.7	6145.3	1536.2	6183.2	1534.1	6213.4
GR	1532.2	6227.6	1533	6252.1	1532.8	6311.9	1532.8	6439.3	1534.6	6531.5
GR	1534.6	6574.9	1536	6599	1537.8	6631.8	1539.5	6659.4	1541.1	6685.9
GR	1541.6	6704.4	1541.3	6718.5						
ET		9.1	7.1				4850	5220	4300.2	6421.1
X1	256	35	4888.9	5209.6	545	450	530			
GR	1522.5	4300.2	1523	4413.6	1522.2	4508.7	1522	4540	1507.9	4888.9
GR	1503.4	4997.8	1503.4	5000	1503.4	5002.3	1506.5	5209.6	1521.7	5328.9
GR	1521.2	5456.9	1520.9	5533.9	1526	5588.9	1532.4	5639	1535.4	5686.3
GR	1536.2	5766.6	1537.3	5876.5	1536.5	5901.6	1536.2	5916.9	1537.3	5933.1
GR	1537	5961.6	1536.2	5969.2	1533.5	6001	1536.7	6015.8	1538.3	6048
GR	1535.4	6078.6	1535.1	6083.6	1537.5	6096.3	1539.7	6131	1540.8	6187.2
GR	1541.6	6292.8	1540.8	6326.9	1535.7	6353.3	1526.3	6383.7	1516.9	6421.1
ET		9.1	7.1				4760	5036.6	4195	6637.9
X1	258	33	4812.1	5036.8	370	457	435			
GR	1527.9	4195	1526.8	4258.2	1523.9	4327.2	1521.7	4446.7	1509.9	4812.1
GR	1504.2	4984.9	1504.2	5000	1504.2	5015.7	1510.1	5036.8	1528.2	5087.2
GR	1527.9	5210.9	1529.5	5309.8	1530.1	5360.9	1531.7	5514	1537.1	5567.6
GR	1537.1	5633.9	1537.1	5697.6	1538.2	5760.7	1548.4	5787.8	1549.2	5801.7
GR	1549.2	5822.4	1546.5	5841.5	1541.9	5867	1520.1	5922.2	1520.1	5958.7
GR	1519.8	6011.1	1519.8	6122	1520.4	6161.5	1519.6	6246.9	1518.5	6303.9
GR	1518.2	6511.8	1518.5	6534	1525.5	6637.9				
ET		9.1	7.1				603.12	875.13	400	1000
X1	260	34	530	889	335	450	410			
GR	1529	0	1524.7	108.2	1524.7	215.3	1524.1	321.5	1524.7	355.6
GR	1523.2	530	1512.67	620	1508.17	629	1509.25	870	1529.25	889
GR	1529.5	1033.4	1529.5	1135.7	1530.9	1202.3	1532.2	1229.7	1532.2	1268.1
GR	1529.3	1278.8	1529.3	1292.4	1528.2	1316.8	1527.9	1403.2	1524.1	1447.9
GR	1521.4	1492.8	1521.7	1582.4	1522.3	1685.4	1522.3	1790.1	1522.3	1815.9
GR	1523.6	1825.8	1522	1829.8	1524.7	1841.9	1522.3	1850.6	1522.5	1908.3
GR	1521.4	1966.6	1540.1	2000.1	1536.3	2062.9	1527.1	2102.9		
X1	262	36	350	870	350	410	390			
GR	1536.8	0	1535.7	29.6	1532	70.4	1530.1	102.4	1524.9	350
GR	1514.9	356	1519.07	670	1518.09	869	1525.59	870	1539	1183.3
GR	1541.1	1209.7	1542.2	1252.9	1542.5	1274.6	1539.5	1282.8	1539.5	1305.5
GR	1542.8	1312.2	1544.6	1344.8	1544.6	1354	1542.5	1372.7	1541.7	1415.8
GR	1541.7	1465.3	1539.8	1516.3	1537.3	1534.7	1528.5	1588.2	1525.5	1721.4
GR	1528.2	1729.8	1526	1739.4	1525.8	1748.1	1528.7	1755.5	1526.8	1766
GR	1527.6	1829.6	1528.2	1886	1536.5	1922.8	1546.5	1940	1547.9	1956.4
GR	1548.7	1987.2								

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ET		9.1	7.1				300	800	0	1989.6
X1	264	23	285.5	838	560	400	435			
GR	1533	0	1531.7	94.8	1530.1	176.9	1523	285.5	1520.9	316.1
GR	1520.9	363.1	1522.8	457.2	1522.5	530.4	1522.8	726.6	1522.5	782.4
GR	1522.8	838	1524.4	897.6	1526	948.7	1528.2	989.7	1528.5	1076.4
GR	1529.5	1757.5	1529.3	1787.6	1528.7	1810.7	1529.3	1833	1530.1	1845.1
GR	1530.1	1880.6	1547.6	1922.9	1548.4	1989.6				
ET		9.1	7.1				346.99	850	0	1921.6

X1	266	37	345	635	450	330	370			
GR	1535.7	0	1535.7	13.5	1536	24.3	1539.8	39.9	1543.8	65.9
GR	1544.1	104.3	1540.6	131	1536.3	159.6	1533	189.9	1531.2	249.2
GR	1528.7	310.9	1528.6	345	1523.6	351	1520.6	371	1521.03	621
GR	1524	635	1524.93	770	1530.67	850	1528.2	867.8	1526	1030.4
GR	1526	1111.8	1528.2	1187.9	1534.7	1209.8	1534.7	1233	1529.3	1262.7
GR	1533.8	1294.1	1534.7	1345.4	1535.5	1386.7	1534.4	1431	1534.4	1657.5
GR	1533.6	1709.9	1533.3	1752.6	1532.8	1787.1	1534.9	1800.7	1534.9	1827.1
GR	1548.1	1880.7	1548.7	1921.6						
ET		9.1	7.1				400	1150	0	1990.7
X1	268	42	671.5	1031.1	380	350	490			
GR	1537.3	0	1534.4	13.9	1538.2	23.7	1539.8	31.5	1539.5	42.8
GR	1533.8	72.7	1532.5	84.4	1532.2	133	1532.2	206.6	1531.2	251.6
GR	1530.3	264.3	1527.7	671.5	1526.3	902.2	1526.3	967.3	1528.2	1031.1
GR	1528.2	1095.8	1528.2	1187.3	1536.3	1279.3	1536.3	1342.1	1532.8	1368.2
GR	1528.7	1387.7	1528.7	1415	1537.3	1435.9	1538.4	1454.4	1532.8	1472.2
GR	1532	1509.9	1534.7	1530.7	1538.4	1546.5	1537.9	1563.2	1536.5	1588.5
GR	1536.3	1605.2	1538.7	1635.1	1539.8	1654.1	1539.8	1675.2	1538.7	1699
GR	1536.3	1743.9	1536.5	1793.1	1536.3	1857.9	1541.9	1880.4	1542.9	1911.1
GR	1547.3	1940.5	1548.1	1990.7						
ET		9.1	7.1				582.34	1864.48	0	2385

Telephone Line Road Crossing, Culverts assumed blocked

Telephone Line Road Crossing, Culverts assumed blocked

X1	270	17	700	1377	650	280	380			
GR	1544	0	1540	6	1536	101	1533.2	212	1532	381
GR	1532.9	530	1529.3	700	1527.05	875	1528.47	1297	1528.71	1377
GR	1531	1517	1528	1694	1528.7	1845	1536	1891	1536	2167
GR	1540	2185	1540	2385						
NC	0.035	0.035	0.035							
ET		9.1	7.1				460	2000	460	2712
X1	272	12	0	2712	55	55	55			
GR	1544	0	1540	46	1536	82	1536	421	1540	456
GR	1539.5	494	1539.4	1065	1539.3	1211	1539.45	1604	1537.6	2208
GR	1540	2372	1541	2712						
ET		9.1	7.1				500	1900	500	1970
X1	274	18	676	1375	35	35	35			
GR	1544	0	1540	67	1536	110	1536	406	1540	462
GR	1540	511	1533.5	530	1534.31	685	1532.3	876	1530.9	883.8
GR	1530.9	922.8	1532.5	930	1532.4	1330	1530.9	1333	1530.9	1373
GR	1531.4	1375	1531.8	1870	1544	1970				

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NC	0.045	0.045	0.045							
ET		9.1	7.1				500	1300	500	1755
X1	276	14	935	1200	80	600	590			
GR	1548	0	1540	75	1536	117	1536	403	1540	487
GR	1540	535	1533.7	555	1538.7	935	1530.9	940.6	1530.9	980.6
GR	1533.7	986.2	1536	1200	1540	1615	1544	1755		
ET		9.1	7.1				500	1150	375	1771
X1	278	14	991	1039.4	280	600	450			
GR	1548	0	1544	21	1544	171	1540	209	1536	287
GR	1540	346	1540	391	1533.3	441	1533	991	1532.9	995.2
GR	1532.9	1035.2	1533	1039.4	1540	1571	1544	1771		
ET		9.1	7.1				350	910	0	2362.9
X1	280	35	538	600	320	410	560			
GR	1548	0	1544	138	1543.2	192.7	1541.9	219	1541.9	252.1
GR	1541.3	336.6	1540.8	412.8	1539.6	451	1539.2	538	1536	548
GR	1536	598	1540	600	1540	600	1540	800	1540.7	1099.5
GR	1541.2	1153.4	1542	1206.5	1543.9	1508.8	1545	1590.7	1544.2	1623.7
GR	1541.8	1662.7	1541.8	1694	1545.8	1713	1547.4	1746.6	1547.4	1792.9
GR	1546.1	1836.3	1545.5	1882.3	1545.8	1931.1	1547.2	1982.4	1546.6	2036.6
GR	1546.9	2089.9	1548.2	2149.2	1548.8	2224.8	1550.9	2332.7	1551.7	2362.9
ET		9.1	7.1				600	1040	0	2001.9
X1	282	19	831	901	363	330	590			
GR	1546.5	0	1546.2	38.1	1545.4	66.1	1545.1	139.2	1543.5	208
GR	1544	278.3	1544	353.3	1540.6	794	1540.07	831	1536.07	835.5
GR	1536.4	891	1541.25	901	1545.3	1490.7	1545.3	1583.8	1546.1	1648.9
GR	1546.9	1945.3	1550.4	1966.9	1555.8	1987.7	1557.4	2001.9		
ET		9.1	7.1				740	1250	0	2208.5
X1	284	25	811	856	450	490	535			
GR	1552.1	0	1552.1	64.6	1550.8	121.7	1550	180.8	1548.3	247.3
GR	1547.3	335	1545.4	411.7	1544	489	1542.4	562.9	1543.92	811
GR	1537.9	814	1537.9	855	1543.5	858	1540	1018	1540.3	1136.8
GR	1540.6	1193	1542.1	1263.1	1542.4	1342.8	1544.1	1436.2	1544	1736
GR	1544.6	1811.9	1547.8	1842.1	1548.6	2023.3	1549.2	2120.1	1550.5	2208.5
ET		9.1	7.1				821	1200	0	2274.7
X1	286	23	821	922	450	450	480			
GR	1555.1	0	1550.8	15.7	1549.7	70.1	1548.3	121.6	1548.1	184.6
GR	1547	252.6	1545.4	345.7	1548.05	821	1540.05	822	1540.69	921
GR	1548.7	922	1544.6	1017.3	1544.6	1071.2	1544.3	1131.1	1544.8	1199.2
GR	1545.1	1228.1	1544.6	1318.2	1544.3	1400.2	1545.1	1643	1548.9	1968.6

GR	1548.6	2155.4	1549.2	2210.9	1549.7	2274.7				
ET		9.1	7.1				638	1070	0	2772.8
X1	288	25	638	728	530	520	580			
GR	1568.3	0	1568	40.9	1568.6	70.5	1568	102.6	1565.9	124.9
GR	1565.9	141.5	1568	159.3	1568.3	188.5	1568.6	214.2	1564.8	246.9
GR	1556.7	292.9	1554.3	339.7	1552.7	375.9	1552.1	428.8	1548.9	636
GR	1540.9	648	1540.8	718	1548.81	728	1548.82	805	1548.6	1123.1
GR	1549.4	1219.9	1549.4	1315.2	1549.4	1395.6	1548.3	1482.8	1560	2772.8

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ET		9.1	7.1				925	1050	0	2673
X1	292	35	959	1031	700	690	835			
GR	1560.5	0	1560.2	45.7	1556.2	68.8	1556.2	121.4	1555.1	134.5
GR	1554.3	149.1	1554.6	161	1554.8	169.8	1556.4	185	1558.6	197.6
GR	1559.9	227.1	1560.2	257.9	1560.2	288.5	1560.2	326.2	1555.3	357.5
GR	1554.3	419	1554	478.7	1553.7	551.9	1554	663.7	1553.7	774.8
GR	1555.6	880.8	1550.72	959	1533.72	979	1550.4	1030	1560.4	1031
GR	1555.6	1103	1554.8	1304.6	1554.3	1421.1	1554	1502.8	1553.7	1686
GR	1554.6	1921.2	1554.3	1991.9	1556.2	2252.5	1557.2	2327.5	1560	2673
ET		9.1	7.1				860	1200	400	1500
X1	294	34	873	1054.5	450	540	550			
GR	1567.5	0	1568	15.4	1568	108	1566.9	132.8	1564.2	181.6
GR	1560.5	241.1	1560.2	295.4	1558.8	359.8	1557.8	422.4	1558	496.8
GR	1558	625.2	1558.3	758.8	1556	873	1548	910	1542	938
GR	1548	966	1556	1035	1558.8	1054.5	1558.3	1225.6	1559.1	1309.6
GR	1559.4	1442.2	1558.6	1567.8	1556.6	1708.7	1558.6	1839.9	1558	1980.4
GR	1557.5	2107.6	1558	2247.8	1559.4	2382.6	1561	2515.8	1561.6	2651.4
GR	1563.7	2738.8	1566.9	2749.2	1566.9	2761.1	1561.8	2780.5		
ET		9.1	7.1				990	1300	0	1400
X1	296	29	984	1301	181	348	360			
GR	1564	0	1560	43	1560	984	1556	1004	1554	1045
GR	1550	1240	1550	1261	1560	1301	1561.5	1329.3	1561.8	1356.1
GR	1561.3	1410.2	1561.3	1489.4	1559.7	1559	1559.7	1623.1	1561.5	1692.7
GR	1561.5	1774	1561	1875.8	1561	1974.4	1559.8	2062.6	1560.5	2121.1
GR	1560.7	2199.1	1560.5	2230.1	1563.2	2244.4	1563.4	2296.1	1561.8	2319.3
GR	1561.8	2408.5	1563.4	2476.8	1563.8	2555.5	1564.5	2644.3		
ET		9.1	7.1				820	1020	0	2682
X1	298	19	810	1030	550	520	660			
GR	1568	0	1564	100	1564	200	1560	550	1560	580
GR	1560	810	1556	820	1552	840	1552	1000	1556	1010
GR	1560	1020	1564	1030	1564	1800	1568	2567	1570.9	2682
ET		9.1	7.1				4874.47	5051.29	4005.1	6821.4
X1	300	45	4850.9	5070.9	580	410	540			
GR	1569.1	4005.1	1569.1	4019.2	1569.1	4066.7	1575.8	4094.3	1575.8	4104.1
GR	1568.6	4133.6	1569.1	4150.4	1571	4184.7	1567.2	4196.7	1567.2	4264.1
GR	1565.9	4399.7	1564.5	4420	1564.5	4438.9	1564.8	4454.7	1564	4499.5
GR	1563.7	4595	1564.8	4671.3	1565.6	4738.7	1565.9	4853.9	1564.5	4862.3
GR	1561.5	4880.6	1559.1	4899.3	1558.3	4913.5	1552.1	4972.2	1552.1	5000
GR	1552.1	5003	1552.4	5006.2	1566.9	5070.9	1567.5	5123.4	1567.5	5208.6
GR	1567.5	5342.1	1567.5	5475.6	1566.9	5607.3	1567.2	5742.2	1567.8	5891.8
GR	1569.1	6281.1	1570.2	6348.5	1570.7	6412.1	1570.7	6469.8	1570.7	6485.4
GR	1570.2	6511.9	1569.9	6579.8	1570.2	6670.9	1571.3	6749.8	1572.3	6821.4
ET		9.1	7.1				825	1269.83	0	3010.3
X1	302	40	1149	1275	400	520	490			
GR	1579.7	0	1578.9	36.3	1573.7	66.3	1573.7	73.9	1574.6	83.6
GR	1573.2	99.6	1572.7	132.8	1575.9	165.8	1576.2	189.1	1579.7	210.7
GR	1579.4	237	1574.6	258.3	1575.6	276.7	1571.6	300.8	1571.6	327.6
GR	1579.4	373.7	1580.4	398.9	1567.5	454.1	1565.9	513.5	1566.4	595.6

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GR	1566.1	708.8	1567.2	825	1567.2	925.6	1567.9	1000.7	1566.01	1149
GR	1562.2	1178	1559.57	1198	1559.57	1254	1571.14	1275	1570.2	1336.4
GR	1569.6	1392.3	1569.9	1632.2	1571.8	2302.6	1574	2389.9	1573.7	2490.8
GR	1574.8	2631.8	1576.1	2738.5	1576.7	2817.4	1577.2	2904.5	1575.8	3010.3
ET		9.1	7.1				4390	5043.1	3808.6	6867.1
X1	304	52	4858.5	5040.1	375	510	515			
GR	1582.9	3808.6	1581	3827.1	1576.7	3852.1	1576.2	3859.1	1580.2	3896.2
GR	1581	3899.7	1577.8	3915.5	1571.8	3952.6	1571.8	3996.6	1573.5	4021.8
GR	1573.5	4044	1575.6	4059.7	1575.1	4068.3	1571	4092.7	1569.7	4177.1
GR	1569.4	4248.7	1570.8	4310.5	1570.6	4358.7	1570	4423.8	1570	4489.9
GR	1569.7	4567.6	1570.5	4654.6	1570.2	4733.1	1570.8	4795.9	1570.5	4858.5
GR	1558.6	4994.9	1558.4	5000	1558.4	5002.4	1562.9	5016.1	1567.8	5028.8
GR	1571	5040.1	1571.6	5087.4	1571.8	5185.4	1574.3	5306.7	1574.3	5411.6
GR	1573.7	5513.7	1574.3	5595.2	1574.6	5688.8	1573.7	5760.6	1574.3	5847.6
GR	1574	5916.6	1574.6	6006.3	1575.4	6093.7	1574	6139.3	1572.9	6179.5
GR	1572.7	6228.3	1573.2	6276.8	1578.1	6688.4	1580	6727.8	1580	6772.8
GR	1578.9	6811.5	1578.9	6867.1						
ET		9.1	7.1				4940	5418.26	3953.6	6557.4
X1	306	32	4977.6	5446.2	120	310	300			
GR	1576	3953.6	1572.9	4001.1	1571.6	4056	1570.8	4140.1	1570.5	4211.8

GR	1571.3	4260.6	1570.2	4318.1	1569.7	4387.1	1569.7	4444.3	1570.8	4516.5
GR	1571	4574.1	1571.3	4825.5	1571	4889.2	1571.26	4977.6	1561.1	4989.4
GR	1561.1	5000	1561.1	5008.1	1573.2	5446.2	1573.5	5488.4	1573.5	5580.9
GR	1574	5663.3	1574.6	5731.6	1574.8	5839.5	1575.1	5896.2	1577	5932.6
GR	1577.3	5991.8	1577	6065.5	1577.3	6152.9	1578.1	6262.6	1577.5	6377.5
GR	1577.3	6462.8	1578.1	6557.4						
ET		9.1	7.1				1175	1550	0	2974.6
X1	500	73	831.18	2037.04	720	320	450			
GR	1584	0	1580.03	66.39	1579.44	76.59	1578.33	97.42	1578.14	100.61
GR	1576	138.76	1575.97	142.33	1575.7	189.84	1575.66	199.64	1575.68	208.91
GR	1575.8	231.63	1575.8	233.25	1576	233.81	1576.5	265.46	1576.01	499.89
GR	1576	500.55	1576	500.66	1576	504.47	1576	691.46	1576.17	744.45
GR	1576	750.64	1576	823.87	1576.32	827.63	1576.41	831.18	1576.37	838.4
GR	1576.1	859.13	1575.26	935.4	1575	957.08	1573.72	1040.2	1573.09	1073.96
GR	1572	1122.52	1571.57	1136.98	1571.34	1145.01	1572	1356.04	1572	1696.43
GR	1573	1778.52	1574.56	1931.04	1576	2037.04	1576	2037.96	1576	2038.86
GR	1576	2039.71	1576	2041.07	1576	2043.54	1576	2302.02	1576.28	2367.99
GR	1576.2	2377.73	1576.22	2377.97	1576.2	2386.08	1576.25	2386.27	1576.25	2386.8
GR	1576.3	2388.15	1576.28	2388.43	1576.3	2389.37	1576.31	2389.65	1576.79	2466.36
GR	1576.8	2467.53	1577.03	2479.2	1577	2479.55	1577.1	2482.46	1577.2	2484.72
GR	1577.3	2486.8	1577.34	2488.34	1577.4	2490.11	1577.44	2493.42	1577.48	2495.51
GR	1577.5	2496.61	1577.54	2498.8	1578.3	2537.23	1578.55	2550.14	1579.03	2578.94
GR	1582.2	2840.45	1582.67	2881.37	1584	2974.6				
ET		9.1	7.1				1400	1850	0	2576.14
X1	502	40	765.88	2023.48	1070	1030	1100			
GR	1588	0	1585.91	86.15	1585.8	86.72	1584.43	125.36	1584.4	125.67
GR	1584.4	126.02	1584.52	128.28	1584	226.13	1583.91	227.74	1577	358.31
GR	1576.9	360.44	1576.94	363.15	1577.1	363.36	1579.01	376.8	1580	382.02
GR	1581.1	435.04	1581.51	502.94	1582.81	611.72	1584	681.12	1584	765.88
GR	1581.9	976.42	1580	1301.59	1578.98	1353.15	1578.02	1396.91	1577.94	1601.56

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GR	1577.9	1673.16	1577.93	1717.58	1577.99	1734.46	1578.2	1758.1	1578.36	1776.09
GR	1580	1959.41	1581.39	1999.83	1582.07	2023.48	1581.91	2030.16	1581.6	2070.89
GR	1584	2320.86	1588	2447.13	1588	2471.74	1584	2485.69	1584	2576.14
ET		9.1	7.1				1600	2025	0	2686.6
X1	504	57	1198.02	2303.64	940	950	945			
GR	1596	0	1596	0	1596	0	1596	0	1596	0
GR	1596	0	1596	0	1596	0	1596	0	1596	0
GR	1596	0	1596	0	1592	280.82	1591.99	280.86	1590.35	288.93
GR	1588	298.86	1588	319.84	1588	329.8	1589.21	350.89	1592	410.32
GR	1592	569.79	1587.9	999.88	1587.91	1001.06	1587.91	1001.87	1587.9	1002.5
GR	1587.9	1003.32	1586.25	1198.02	1584.6	1433.05	1584.14	1508.08	1584	1540.24
GR	1583.7	1734.53	1584	1861.96	1584	2049.19	1584	2049.34	1584	2049.4
GR	1584	2050.26	1584.1	2067.78	1584.5	2091.17	1586.04	2148.92	1587.26	2193.69
GR	1587.4	2207.7	1587.21	2216.41	1587.2	2217	1587.35	2246.98	1587.29	2257.47
GR	1587.4	2265.23	1588	2293.62	1588.01	2294.51	1588.1	2303.84	1588.23	2325.15
GR	1588.3	2332.98	1584.94	2382.66	1584	2396.31	1584	2492.19	1585.55	2532.71
GR	1590.7	2654.93	1592	2686.8						
ET		9.1	7.1				1450	2100	0	3190
X1	506	29	868.06	2237.4	1100	1100	1100			
GR	1600	0	1600	0	1597.78	397.49	1596.91	583.33	1596.28	725.21
GR	1595.7	861.91	1595.7	868.06	1594.57	1168.93	1594.3	1249.12	1593.89	1347.2
GR	1593.7	1505.1	1594	1578.46	1594.2	1602.04	1594.23	1689.59	1594	1748.89
GR	1594.1	1798.59	1594.3	1933.39	1594.32	1967.18	1594.25	2030.42	1594.77	2145.2
GR	1595.7	2215.05	1596	2226.98	1596	2230.5	1596	2231.8	1596	2237.4
GR	1596	2249.09	1596	2253.07	1596	2690.54	1600	3190		
ET		9.1	7.1				1025	2000	0	2692.33
X1	508	54	451.07	2214.31	770	730	750			
GR	1604	0	1604	0	1602.55	130.97	1601.56	216.82	1600.88	277.47
GR	1600	359.73	1599.61	451.07	1598.72	663.29	1598.3	758.73	1597.87	856.69
GR	1597.6	932.26	1597.38	986.77	1597.31	1009.45	1597.11	1124.01	1597.1	1138.06
GR	1597.2	1192.32	1597.35	1239.14	1597.6	1290.42	1598.14	1350.38	1599.47	1447.27
GR	1599.6	1456.2	1600.12	1587.21	1600	1631.1	1600	1682.12	1600	1684.17
GR	1600	1685.25	1600	1687.49	1599.74	1701.62	1599.74	1719.27	1599.83	1781.19
GR	1600.1	1832.85	1600.1	1833.37	1601.1	1926.86	1601.48	1966.72	1602.15	2044.57
GR	1602.3	2059.23	1603.2	2145.87	1604	2214.31	1604	2217.28	1604	2217.61
GR	1604	2238.54	1604	2311.79	1604	2330.91	1604	2402.37	1604	2418.89
GR	1604	2433.46	1604	2442.72	1604	2449.4	1602.16	2476.33	1600	2505.67
GR	1601.5	2599.63	1602.44	2687.62	1602.4	2687.67	1602.47	2692.33		
NC	0.022	0.022	0.022	0.3	0.5					
ET		9.1	7.1				1825	2575	0	4461
X1	510	7	0	4461	1150	570	840			
GR	1616	0	1612	1150	1611.4	2060	1611.4	2535	1612	3351
GR	1611.4	3393	1616	4461						

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T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Lake Las Vegas to Duck Creek
T2      Nolte and Associates, Jan 1998
T3      Boundary condition: Lake Las Vegas weir elev. = 1417

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
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	3			-1			11500	1417	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2		-1					-6		

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THIS RUN EXECUTED 25JAN99 17:33:57

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Boundary condition: Lake

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	100.000	.00	.00	.00	1417.00	11500.00	1420.98	1420.98	1422.99	87.16	11.38	1010.80	1231.80
*	100.000	.00	.00	.00	1417.00	11500.00	1420.98	1420.98	1422.99	87.16	11.38	1010.80	1231.80
*	105.000	1.00	.00	.00	1406.00	11500.00	1423.06	.00	1423.18	.81	2.80	4182.37	12746.17
*	105.000	1.00	.00	.00	1406.00	11500.00	1423.06	.00	1423.18	.81	2.80	4182.37	12746.17
*	202.000	225.00	.00	.00	1416.20	11500.00	1423.08	.00	1423.22	3.01	3.02	3811.87	6631.63
*	202.000	225.00	.00	.00	1416.20	11500.00	1423.08	.00	1423.22	3.01	3.02	3811.87	6631.63
	204.000	524.00	.00	.00	1412.40	11500.00	1423.21	.00	1423.34	1.99	2.90	3970.36	8152.63
	204.000	524.00	.00	.00	1412.40	11500.00	1423.21	.00	1423.34	1.99	2.90	3970.36	8152.63
*	206.000	410.00	.00	.00	1414.00	11500.00	1422.96	.00	1423.72	18.51	6.97	1650.93	2672.69
*	206.000	410.00	.00	.00	1414.00	11500.00	1422.96	.00	1423.72	18.51	6.97	1650.93	2672.69
*	208.000	443.00	.00	.00	1419.40	11500.00	1426.96	1426.96	1429.40	81.28	12.52	918.24	1275.59
*	208.000	443.00	.00	.00	1419.40	11500.00	1426.96	1426.96	1429.40	81.28	12.52	918.24	1275.59
*	210.000	369.00	.00	.00	1414.40	11500.00	1429.69	.00	1429.84	1.95	3.13	3668.28	8228.18
*	210.000	369.00	.00	.00	1414.40	11500.00	1429.69	.00	1429.84	1.95	3.13	3668.28	8228.17
*	212.000	471.00	.00	.00	1417.30	11500.00	1429.74	.00	1430.02	4.80	4.26	2698.17	5250.90
*	212.000	471.00	.00	.00	1417.30	11500.00	1429.74	.00	1430.02	4.80	4.26	2698.17	5250.90
*	214.000	590.00	.00	.00	1423.00	11500.00	1429.17	.00	1431.29	74.65	11.70	983.32	1331.04
*	214.000	590.00	.00	.00	1423.00	11500.00	1429.17	.00	1431.29	74.65	11.70	983.32	1331.04
*	216.000	560.00	.00	.00	1421.20	11500.00	1432.51	.00	1432.89	13.57	5.87	2457.40	3122.39
*	216.000	560.00	.00	.00	1421.20	11500.00	1432.51	.00	1432.89	13.57	5.87	2457.39	3122.39
*	218.000	830.00	.00	.00	1434.60	11500.00	1443.61	1443.61	1445.93	192.46	12.22	941.06	828.95
*	218.000	830.00	.00	.00	1434.60	11500.00	1443.61	1443.61	1445.93	192.46	12.22	941.06	828.95

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	220.000	738.00	.00	.00	1438.20	11500.00	1447.79	.00	1448.04	9.70	4.04	2849.10	3691.60
*	220.000	738.00	.00	.00	1438.20	11500.00	1447.79	.00	1448.04	9.70	4.04	2849.10	3691.60
*	222.000	511.00	.00	.00	1445.90	11500.00	1452.57	1452.57	1454.45	204.87	11.00	1045.71	803.45
*	222.000	511.00	.00	.00	1445.90	11500.00	1452.57	1452.57	1454.45	204.87	11.00	1045.71	803.45
*	224.000	507.00	.00	.00	1439.47	11500.00	1455.30	.00	1455.53	6.24	3.82	3010.66	4603.70
*	224.000	507.00	.00	.00	1439.47	11500.00	1455.30	.00	1455.53	6.24	3.82	3010.66	4603.70
*	226.000	796.00	.00	.00	1450.65	11500.00	1456.40	1456.40	1457.85	213.72	9.69	1186.89	786.65
*	226.000	796.00	.00	.00	1450.65	11500.00	1456.40	1456.40	1457.85	213.72	9.69	1186.89	786.65
	228.000	615.00	.00	.00	1462.70	11500.00	1466.14	.00	1467.25	113.93	8.46	1360.05	1077.41
	228.000	615.00	.00	.00	1462.70	11500.00	1466.14	.00	1467.25	113.93	8.46	1360.05	1077.41
*	230.000	513.00	.00	.00	1460.47	11500.00	1468.40	.00	1468.81	12.96	5.14	2236.78	3193.86
*	230.000	513.00	.00	.00	1460.47	11500.00	1468.40	.00	1468.81	12.96	5.14	2236.78	3193.86
	232.000	470.00	.00	.00	1451.60	11500.00	1468.89	.00	1469.36	9.99	5.49	2093.00	3637.96
	232.000	470.00	.00	.00	1451.60	11500.00	1468.89	.00	1469.36	9.99	5.49	2093.00	3637.96
*	234.000	431.00	.00	.00	1465.22	11500.00	1474.81	1474.81	1477.23	146.26	12.47	922.00	950.89

*	234.000	431.00	.00	.00	1465.22	11500.00	1474.81	1474.81	1477.23	146.26	12.47	922.00	950.89
*	236.000	577.00	.00	.00	1464.51	11500.00	1478.14	.00	1478.48	6.67	4.70	2446.36	4451.70
*	236.000	577.00	.00	.00	1464.51	11500.00	1478.14	.00	1478.48	6.67	4.70	2446.36	4451.70
*	238.000	693.00	.00	.00	1474.43	11500.00	1479.08	.00	1479.71	88.90	6.37	1804.47	1219.70
*	238.000	693.00	.00	.00	1474.43	11500.00	1479.08	.00	1479.71	88.90	6.37	1804.47	1219.70
*	240.000	455.00	.00	.00	1476.92	11500.00	1481.57	.00	1482.01	32.24	5.36	2145.99	2025.35
*	240.000	455.00	.00	.00	1476.92	11500.00	1481.57	.00	1482.01	32.24	5.36	2145.99	2025.35
*	242.000	810.00	.00	.00	1482.00	11500.00	1488.85	1488.85	1490.48	119.16	11.57	1241.78	1053.48
*	242.000	810.00	.00	.00	1482.00	11500.00	1488.85	1488.85	1490.48	119.16	11.57	1241.78	1053.48
	244.000	460.00	.00	.00	1488.07	11500.00	1493.36	.00	1494.83	78.77	9.74	1180.79	1295.76
	244.000	460.00	.00	.00	1488.07	11500.00	1493.36	.00	1494.83	78.77	9.74	1180.79	1295.76
	246.000	550.00	.00	.00	1488.13	11500.00	1496.65	.00	1498.24	49.05	10.11	1136.97	1641.96
	246.000	550.00	.00	.00	1488.13	11500.00	1496.65	.00	1498.24	49.05	10.11	1136.97	1641.96
	248.000	531.00	.00	.00	1490.50	11500.00	1499.24	.00	1500.94	51.69	10.48	1097.00	1599.64
	248.000	531.00	.00	.00	1490.50	11500.00	1499.24	.00	1500.94	51.65	10.48	1097.00	1599.64
	250.000	834.00	.00	.00	1494.40	11500.00	1503.86	.00	1505.01	51.69	10.50	1534.49	1599.59
	250.000	834.00	.00	.00	1494.40	11500.00	1503.92	.00	1505.68	70.34	12.31	1203.89	1371.22
	252.000	791.00	.00	.00	1501.90	11500.00	1508.12	.00	1508.81	53.12	6.92	1873.31	1577.80
*	252.000	791.00	.00	.00	1501.90	11500.00	1508.79	.00	1509.33	35.04	6.05	2067.66	1942.68

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	254.000	628.00	.00	.00	1502.20	11500.00	1510.32	.00	1510.77	22.32	5.81	2220.91	2434.37
	254.000	628.00	.00	.00	1502.20	11500.00	1510.64	.00	1511.35	29.47	6.90	1743.14	2116.44
	256.000	530.00	.00	.00	1503.40	11500.00	1511.50	.00	1512.05	25.97	6.03	2026.32	2256.46
	256.000	530.00	.00	.00	1503.40	11500.00	1512.13	.00	1512.58	18.27	5.43	2193.29	2690.13
	258.000	435.00	.00	.00	1504.20	11500.00	1512.63	.00	1513.68	46.81	8.33	1463.07	1680.78
*	256.000	435.00	.00	.00	1504.20	11500.00	1512.91	.00	1513.86	40.36	7.92	1516.39	1810.29
	260.000	410.00	.00	.00	1508.17	11500.00	1514.64	.00	1515.56	44.56	7.67	1498.79	1722.41
	260.000	410.00	.00	.00	1508.17	11500.00	1514.68	.00	1515.58	43.76	7.63	1507.25	1738.38
*	262.000	390.00	.00	.00	1514.90	11500.00	1520.09	1520.09	1521.34	173.65	8.94	1286.20	872.70
*	262.000	390.00	.00	.00	1514.90	11500.00	1520.10	1520.10	1521.34	173.31	8.94	1286.95	873.55
*	264.000	435.00	.00	.00	1520.90	11500.00	1525.35	.00	1525.99	70.97	6.54	1830.70	1365.09
*	264.000	435.00	.00	.00	1520.90	11500.00	1525.51	.00	1526.30	79.64	7.16	1606.65	1288.67
*	266.000	370.00	.00	.00	1520.60	11500.00	1526.94	.00	1527.45	25.09	6.05	2185.94	2296.03
*	266.000	370.00	.00	.00	1520.60	11500.00	1527.23	.00	1527.71	21.63	5.79	2189.95	2472.67
*	268.000	490.00	.00	.00	1526.30	11500.00	1529.76	1529.76	1530.71	132.74	8.59	1646.65	998.14
*	268.000	490.00	.00	.00	1526.30	11500.00	1529.80	1529.80	1530.80	134.95	8.73	1559.31	989.95
*	270.000	380.00	.00	.00	1527.05	11500.00	1531.79	.00	1531.94	13.02	3.28	3963.66	3186.76
*	270.000	380.00	.00	.00	1527.05	11500.00	1531.86	.00	1532.00	12.20	3.21	4047.87	3292.09
*	272.000	55.00	.00	.00	1536.00	11500.00	1540.07	1540.07	1540.65	213.81	6.10	1885.31	786.48
*	272.000	55.00	.00	.00	1536.00	11500.00	1540.47	1540.47	1541.07	170.73	6.24	1841.92	880.12
*	274.000	35.00	.00	.00	1530.90	11500.00	1540.69	.00	1540.71	.32	1.01	11623.45	20175.56
*	274.000	35.00	.00	.00	1530.90	11500.00	1541.12	.00	1541.14	.28	.96	12111.77	21849.94
*	276.000	590.00	.00	.00	1530.90	11500.00	1540.68	.00	1540.76	3.71	2.22	5608.72	5973.36
*	276.000	590.00	.00	.00	1530.90	11500.00	1541.10	.00	1541.18	3.38	2.21	5251.44	6254.03
	278.000	450.00	.00	.00	1532.90	11500.00	1540.81	.00	1540.86	1.93	1.82	7232.96	8288.25
	278.000	450.00	.00	.00	1532.90	11500.00	1541.21	.00	1541.29	2.88	2.30	5200.53	6776.75
*	280.000	560.00	.00	.00	1536.00	11500.00	1542.20	1542.20	1542.97	95.02	10.16	1940.84	1179.78
*	280.000	560.00	.00	.00	1536.00	11500.00	1542.41	1542.41	1543.51	110.03	11.20	1546.77	1096.32
*	282.000	590.00	.00	.00	1536.07	11500.00	1544.79	.00	1545.19	31.69	7.30	2915.11	2042.72
*	282.000	590.00	.00	.00	1536.07	11500.00	1545.37	.00	1545.94	31.86	7.66	2078.66	2037.46
*	284.000	535.00	.00	.00	1537.90	11500.00	1545.91	.00	1546.02	9.88	3.67	4554.67	3657.94
*	284.000	535.00	.00	.00	1537.90	11500.00	1546.73	.00	1546.99	14.52	4.76	2858.60	3018.15
*	286.000	480.00	.00	.00	1540.05	11500.00	1546.53	1546.53	1547.30	78.14	9.12	2076.81	1300.91
*	286.000	480.00	.00	.00	1540.05	11500.00	1547.24	.00	1548.83	108.42	11.46	1262.47	1104.45

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	288.000	580.00	.00	.00	1540.80	11500.00	1550.44	1550.44	1551.34	47.91	9.29	2249.31	1661.42

*	288.000	580.00	.00	.00	1540.80	11500.00	1551.44	.00	1552.36	39.89	8.95	1792.21	1820.90
	292.000	835.00	.00	.00	1533.72	11500.00	1553.96	1551.49	1556.58	73.47	13.22	988.82	1341.65
	292.000	835.00	.00	.00	1533.72	11500.00	1554.44	.00	1556.83	63.90	12.61	967.16	1438.63
*	294.000	550.00	.00	.00	1542.00	11500.00	1558.47	.00	1559.31	32.18	7.51	1776.42	2027.19
	294.000	550.00	.00	.00	1542.00	11500.00	1558.54	.00	1559.46	33.93	7.74	1508.33	1974.37
	296.000	360.00	.00	.00	1550.00	11500.00	1559.80	.00	1560.25	20.32	5.34	2153.30	2551.00
	296.000	360.00	.00	.00	1550.00	11500.00	1559.97	.00	1560.39	18.47	5.22	2204.72	2675.59
	298.000	660.00	.00	.00	1552.00	11500.00	1561.11	.00	1561.70	22.69	6.31	2077.76	2414.33
	298.000	660.00	.00	.00	1552.00	11500.00	1561.18	.00	1561.88	24.74	6.70	1716.20	2312.04
*	300.000	540.00	.00	.00	1552.10	11500.00	1562.50	.00	1564.17	86.53	10.38	1108.32	1236.27
*	300.000	540.00	.00	.00	1552.10	11500.00	1562.76	.00	1564.30	76.22	9.98	1152.58	1317.22
*	302.000	490.00	.00	.00	1559.57	11500.00	1568.29	1568.29	1569.25	62.64	9.29	1884.41	1453.06
*	302.000	490.00	.00	.00	1559.57	11500.00	1568.65	1568.65	1570.27	82.76	11.03	1351.57	1264.09
	304.000	515.00	.00	.00	1558.40	11500.00	1571.04	1568.95	1571.97	50.91	8.28	1859.63	1611.75
*	304.000	515.00	.00	.00	1558.40	11500.00	1571.99	.00	1572.58	28.37	6.79	2216.06	2159.13
*	306.000	300.00	.00	.00	1561.10	11500.00	1572.44	.00	1572.60	10.74	3.52	4101.92	3509.27
*	306.000	300.00	.00	.00	1561.10	11500.00	1572.89	.00	1573.14	12.93	4.06	2872.93	3196.30
*	500.000	450.00	.00	.00	1571.34	11500.00	1574.03	1574.03	1574.92	248.84	7.60	1513.15	729.02
*	500.000	450.00	.00	.00	1571.34	11500.00	1574.93	1574.93	1576.48	211.48	10.01	1148.43	790.79
*	502.000	1100.00	.00	.00	1576.90	11500.00	1582.11	.00	1582.29	30.22	3.49	3363.52	2091.79
*	502.000	1100.00	.00	.00	1576.90	11500.00	1583.06	.00	1583.47	29.44	5.16	2234.68	2119.61
*	504.000	945.00	.00	.00	1583.70	11500.00	1586.48	.00	1586.86	86.05	4.91	2331.26	1239.74
*	504.000	945.00	.00	.00	1583.70	11500.00	1587.42	.00	1588.33	102.47	7.67	1500.06	1136.04
	506.000	1100.00	.00	.00	1593.70	11500.00	1596.24	.00	1596.56	90.45	4.62	2595.09	1209.18
	506.000	1100.00	.00	.00	1593.70	11500.00	1597.18	.00	1597.70	71.39	5.82	1976.06	1361.06
*	508.000	750.00	.00	.00	1597.10	11500.00	1600.84	.00	1601.04	42.05	3.58	3292.51	1773.38
	508.000	750.00	.00	.00	1597.10	11500.00	1601.80	.00	1602.10	48.52	4.41	2604.77	1651.00
*	510.000	840.00	.00	.00	1611.40	11500.00	1612.53	1612.53	1612.96	76.80	5.22	2202.90	1312.28
*	510.000	840.00	.00	.00	1611.40	11500.00	1613.37	1613.37	1614.34	56.87	7.90	1455.76	1525.00

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Boundary condition: Lake

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	100.000	11500.00	1420.98	.00	.00	3.98	254.10	.00
*	100.000	11500.00	1420.98	.00	.00	3.98	254.10	.00
*	105.000	11500.00	1423.06	.00	2.08	.00	254.00	1.00
*	105.000	11500.00	1423.06	.00	2.08	.00	254.00	1.00
*	202.000	11500.00	1423.08	.00	.02	.00	571.42	225.00
*	202.000	11500.00	1423.08	.00	.02	.00	571.42	225.00
	204.000	11500.00	1423.21	.00	.14	.00	461.94	524.00
	204.000	11500.00	1423.21	.00	.14	.00	461.94	524.00
*	206.000	11500.00	1422.96	.00	-.25	.00	278.28	410.00
*	206.000	11500.00	1422.96	.00	-.25	.00	278.28	410.00
*	208.000	11500.00	1426.96	.00	4.00	.00	188.32	443.00
*	208.000	11500.00	1426.96	.00	4.00	.00	188.32	443.00
*	210.000	11500.00	1429.69	.00	2.73	.00	281.10	369.00
*	210.000	11500.00	1429.69	.00	2.73	.00	281.10	369.00
*	212.000	11500.00	1429.74	.00	.05	.00	263.29	471.00
*	212.000	11500.00	1429.74	.00	.05	.00	263.29	471.00
*	214.000	11500.00	1429.17	.00	-.57	.00	163.87	590.00
*	214.000	11500.00	1429.17	.00	-.57	.00	163.87	590.00
*	216.000	11500.00	1432.51	.00	3.34	.00	356.94	560.00
*	216.000	11500.00	1432.51	.00	3.34	.00	356.94	560.00
*	218.000	11500.00	1443.61	.00	11.09	.00	208.93	830.00
*	218.000	11500.00	1443.61	.00	11.09	.00	208.93	830.00
*	220.000	11500.00	1447.79	.00	4.18	.00	353.15	738.00
*	220.000	11500.00	1447.79	.00	4.18	.00	353.15	738.00
*	222.000	11500.00	1452.57	.00	4.78	.00	289.25	511.00
*	222.000	11500.00	1452.57	.00	4.78	.00	289.25	511.00

*	224.000	11500.00	1455.30	.00	2.73	.00	285.56	507.00
*	224.000	11500.00	1455.30	.00	2.73	.00	285.56	507.00
*	226.000	11500.00	1456.40	.00	1.09	.00	413.13	796.00
*	226.000	11500.00	1456.40	.00	1.09	.00	413.13	796.00
	228.000	11500.00	1466.14	.00	9.75	.00	432.52	615.00
	228.000	11500.00	1466.14	.00	9.75	.00	432.52	615.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	230.000	11500.00	1468.40	.00	2.26	.00	285.26	513.00
*	230.000	11500.00	1468.40	.00	2.26	.00	285.26	513.00
	232.000	11500.00	1468.89	.00	.49	.00	192.10	470.00
	232.000	11500.00	1468.89	.00	.49	.00	192.10	470.00
*	234.000	11500.00	1474.81	.00	5.92	.00	192.19	431.00
*	234.000	11500.00	1474.81	.00	5.92	.00	192.19	431.00
*	236.000	11500.00	1478.14	.00	3.33	.00	209.02	577.00
*	236.000	11500.00	1478.14	.00	3.33	.00	209.02	577.00
*	238.000	11500.00	1479.08	.00	.94	.00	731.85	693.00
*	238.000	11500.00	1479.08	.00	.94	.00	731.85	693.00
*	240.000	11500.00	1481.57	.00	2.49	.00	525.70	455.00
*	240.000	11500.00	1481.57	.00	2.49	.00	525.70	455.00
*	242.000	11500.00	1488.85	.00	7.29	.00	389.34	810.00
*	242.000	11500.00	1488.85	.00	7.29	.00	389.34	810.00
	244.000	11500.00	1493.36	.00	4.50	.00	226.73	460.00
	244.000	11500.00	1493.36	.00	4.50	.00	226.73	460.00
	246.000	11500.00	1496.65	.00	3.29	.00	136.82	550.00
	246.000	11500.00	1496.65	.00	3.29	.00	136.82	550.00
	248.000	11500.00	1499.24	.00	2.59	.00	131.38	531.00
	248.000	11500.00	1499.24	.00	2.59	.00	131.38	531.00
	250.000	11500.00	1503.86	.00	4.63	.00	409.58	834.00
	250.000	11500.00	1503.92	.06	4.68	.06	250.00	834.00
	252.000	11500.00	1508.12	.00	4.25	.00	680.79	791.00
*	252.000	11500.00	1508.79	.67	4.87	.67	649.27	791.00
*	254.000	11500.00	1510.32	.00	2.20	.00	454.65	628.00
	254.000	11500.00	1510.64	.32	1.85	.32	290.00	628.00
	256.000	11500.00	1511.50	.00	1.18	.00	436.99	530.00
	256.000	11500.00	1512.13	.63	1.49	.63	370.00	530.00
	258.000	11500.00	1512.63	.00	1.12	.00	316.20	435.00
*	258.000	11500.00	1512.92	.29	.78	.29	276.80	435.00
	260.000	11500.00	1514.64	.00	2.02	.00	272.00	410.00
	260.000	11500.00	1514.68	.03	1.76	.03	272.01	410.00
*	262.000	11500.00	1520.09	.00	5.45	.00	516.38	390.00
*	262.000	11500.00	1520.10	.00	5.42	.00	516.39	390.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	264.000	11500.00	1525.35	.00	5.26	.00	678.32	435.00
*	264.000	11500.00	1525.51	.16	5.41	.16	500.00	435.00
*	266.000	11500.00	1526.94	.00	1.59	.00	634.90	370.00
*	266.000	11500.00	1527.23	.29	1.72	.29	455.05	370.00
*	268.000	11500.00	1529.76	.00	2.83	.00	891.40	490.00
*	268.000	11500.00	1529.80	.04	2.57	.04	750.00	490.00
*	270.000	11500.00	1531.79	.00	2.03	.00	1282.15	380.00
*	270.000	11500.00	1531.86	.07	2.06	.07	1282.14	380.00
*	272.000	11500.00	1540.07	.00	8.28	.00	1935.62	55.00
*	272.000	11500.00	1540.47	.40	8.61	.40	1540.00	55.00
*	274.000	11500.00	1540.69	.00	.62	.00	1442.89	35.00
*	274.000	11500.00	1541.12	.43	.65	.43	1400.00	35.00
*	276.000	11500.00	1540.68	.00	-.01	.00	1138.93	590.00
*	276.000	11500.00	1541.10	.42	-.02	.42	800.00	590.00

	278.000	11500.00	1540.81	.00	.13	.00	1236.66	450.00
	278.000	11500.00	1541.21	.40	.11	.40	650.00	450.00
*	280.000	11500.00	1542.20	.00	1.38	.00	1064.44	560.00
*	280.000	11500.00	1542.41	.22	1.20	.22	560.00	560.00
*	282.000	11500.00	1544.79	.00	2.60	.00	1265.06	590.00
*	282.000	11500.00	1545.37	.57	2.95	.57	440.00	590.00
*	284.000	11500.00	1545.91	.00	1.12	.00	1433.49	535.00
*	284.000	11500.00	1546.73	.82	1.36	.82	510.00	535.00
*	286.000	11500.00	1546.53	.00	.62	.00	1163.33	480.00
*	286.000	11500.00	1547.24	.71	.51	.71	344.84	480.00
*	288.000	11500.00	1550.44	.00	3.91	.00	1181.43	580.00
*	288.000	11500.00	1551.44	1.00	4.20	1.00	432.00	580.00
	292.000	11500.00	1553.96	.00	3.52	.00	613.76	835.00
	292.000	11500.00	1554.44	.49	3.00	.49	105.40	835.00
*	294.000	11500.00	1558.47	.00	4.51	.00	728.96	550.00
	294.000	11500.00	1558.54	.07	4.10	.07	246.95	550.00
	296.000	11500.00	1559.80	.00	1.33	.00	315.24	360.00
	296.000	11500.00	1559.97	.17	1.43	.17	310.00	360.00
	298.000	11500.00	1561.11	.00	1.31	.00	570.00	660.00
	298.000	11500.00	1561.18	.07	1.21	.07	200.00	660.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	300.000	11500.00	1562.50	.00	1.39	.00	176.82	540.00
*	300.000	11500.00	1562.76	.25	1.57	.25	176.82	540.00
*	302.000	11500.00	1568.29	.00	5.79	.00	819.12	490.00
*	302.000	11500.00	1568.65	.36	5.90	.36	444.83	490.00
	304.000	11500.00	1571.04	.00	2.74	.00	950.63	515.00
*	304.000	11500.00	1571.99	.95	3.34	.95	653.10	515.00
*	306.000	11500.00	1572.44	.00	1.40	.00	1393.61	300.00
*	306.000	11500.00	1572.89	.45	.90	.45	478.26	300.00
*	500.000	11500.00	1574.03	.00	1.59	.00	858.62	450.00
*	500.000	11500.00	1574.93	.90	2.04	.90	375.00	450.00
*	502.000	11500.00	1582.11	.00	8.08	.00	1460.07	1100.00
*	502.000	11500.00	1583.06	.95	8.13	.95	450.00	1100.00
*	504.000	11500.00	1586.48	.00	4.37	.00	1189.43	945.00
*	504.000	11500.00	1587.42	.94	4.37	.94	425.00	945.00
	506.000	11500.00	1596.24	.00	9.76	.00	1984.72	1100.00
	506.000	11500.00	1597.18	.94	9.76	.94	650.00	1100.00
*	508.000	11500.00	1600.84	.00	4.61	.00	1688.38	750.00
	508.000	11500.00	1601.80	.95	4.62	.95	975.00	750.00
*	510.000	11500.00	1612.53	.00	11.69	.00	2659.71	840.00
*	510.000	11500.00	1613.37	.83	11.57	.83	750.00	840.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=    100.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    100.000  PROFILE=  2  CRITICAL DEPTH ASSUMED

WARNING SECNO=    105.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    105.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    202.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    202.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    206.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    206.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    208.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    208.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    208.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    208.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    208.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
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 CAUTION SECNO=    208.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    210.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    210.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    212.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    212.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    214.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    214.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    216.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    216.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    218.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    218.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    218.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    218.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    218.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    218.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    220.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    220.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    222.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    222.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    222.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    222.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    222.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    222.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    224.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    224.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
1
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 CAUTION SECNO=    226.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    226.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    226.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    226.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    226.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    226.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    230.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    230.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    234.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    234.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    234.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    234.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    234.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    234.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    236.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    236.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    238.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    238.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    240.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    240.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    242.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    242.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    242.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    242.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    242.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    242.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    252.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    254.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    258.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    262.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    262.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    262.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    262.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    262.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    262.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    264.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    264.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    266.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    266.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    268.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    268.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
1
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CAUTION SECNO= 268.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 268.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 268.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 268.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO= 270.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 270.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 272.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 272.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 272.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 272.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 272.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 272.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO= 274.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 274.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 276.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 276.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 280.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 280.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 280.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 280.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 280.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 280.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO= 282.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 282.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 284.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 284.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 286.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 286.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY
WARNING SECNO= 286.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 288.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 288.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY
WARNING SECNO= 288.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 294.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 300.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 300.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 302.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 302.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 302.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 302.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

WARNING SECNO= 304.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 306.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 306.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 500.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 500.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 500.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 500.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 500.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 500.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO= 502.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 502.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 504.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 504.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 508.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 510.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 510.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 510.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 510.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 510.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 510.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

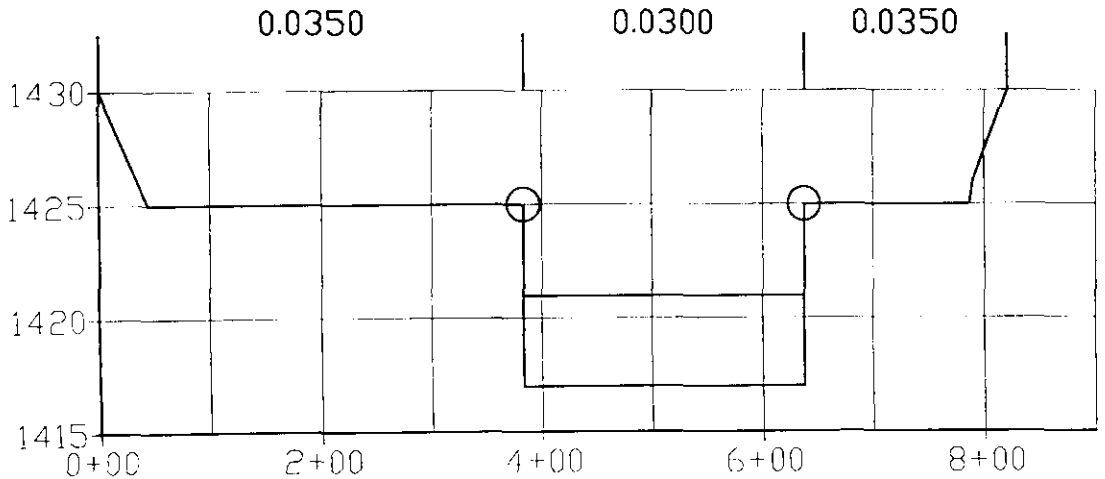
FLOODWAY DATA, Boundary condition: Lake

PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
100.000	254.	1011.	11.4	1421.0	1421.0	.0
105.000	254.	4182.	2.7	1423.1	1423.1	.0
202.000	571.	3812.	3.0	1423.1	1423.1	.0
204.000	462.	3970.	2.9	1423.2	1423.2	.0
206.000	278.	1651.	7.0	1423.0	1423.0	.0
208.000	188.	918.	12.5	1427.0	1427.0	.0
210.000	281.	3668.	3.1	1429.7	1429.7	.0
212.000	263.	2698.	4.3	1429.7	1429.7	.0
214.000	164.	983.	11.7	1429.2	1429.2	.0
216.000	357.	2457.	4.7	1432.5	1432.5	.0
218.000	209.	941.	12.2	1443.6	1443.6	.0
220.000	353.	2849.	4.0	1447.8	1447.8	.0
222.000	299.	1046.	11.0	1452.6	1452.6	.0
224.000	286.	3011.	3.8	1455.3	1455.3	.0
226.000	413.	1187.	9.7	1456.4	1456.4	.0
228.000	433.	1360.	8.5	1466.1	1466.1	.0
230.000	285.	2237.	5.1	1468.4	1468.4	.0
232.000	192.	2093.	5.5	1468.9	1468.9	.0
234.000	192.	922.	12.5	1474.8	1474.8	.0
236.000	209.	2446.	4.7	1478.1	1478.1	.0
238.000	732.	1804.	6.4	1479.1	1479.1	.0
240.000	526.	2146.	5.4	1481.6	1481.6	.0
242.000	389.	1242.	9.3	1488.9	1488.9	.0
244.000	227.	1181.	9.7	1493.4	1493.4	.0
246.000	137.	1137.	10.1	1496.6	1496.6	.0
248.000	131.	1097.	10.5	1499.2	1499.2	.0
250.000	250.	1204.	9.6	1504.0	1503.9	.1
252.000	649.	2068.	5.6	1508.8	1508.1	.7
254.000	290.	1743.	6.6	1510.6	1510.3	.3
256.000	370.	2193.	5.2	1512.1	1511.5	.6
258.000	277.	1516.	7.6	1513.9	1513.6	.3
260.000	272.	1507.	7.6	1514.6	1514.6	.0
262.000	516.	1287.	8.9	1520.1	1520.1	.0
264.000	500.	1607.	7.2	1525.5	1525.3	.2
266.000	455.	2190.	5.3	1527.2	1526.9	.3
268.000	750.	1559.	7.4	1529.8	1529.8	.0
270.000	1282.	4048.	2.8	1531.9	1531.8	.1
272.000	1540.	1842.	6.2	1540.5	1540.1	.4
274.000	1400.	12112.	.9	1541.1	1540.7	.4
276.000	800.	5251.	2.2	1541.1	1540.7	.4
278.000	650.	5201.	2.2	1541.2	1540.8	.4
280.000	560.	1547.	7.4	1542.4	1542.2	.2

FLOODWAY DATA, Boundary condition: Lake
PROFILE NO. 2

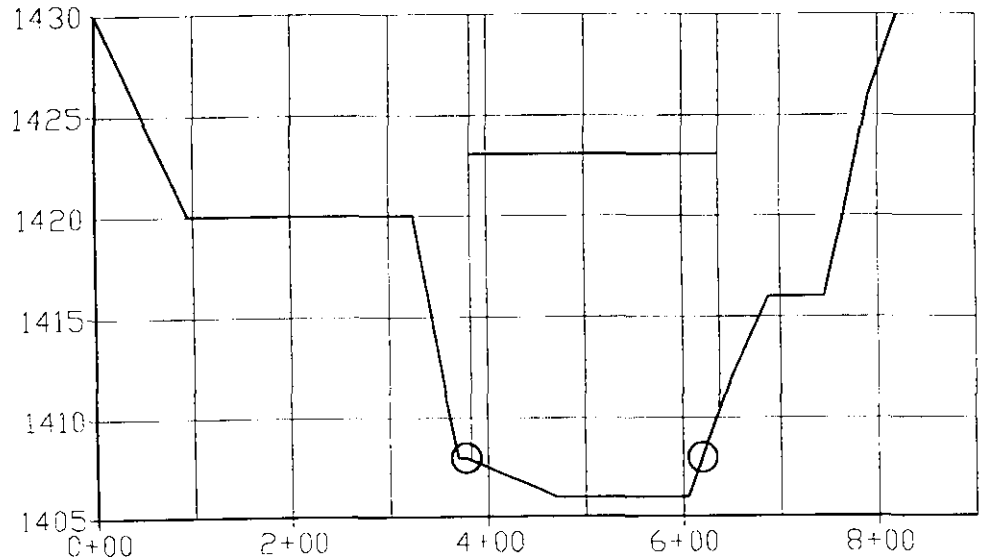
STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
282.000	440.	2079.	5.5	1545.4	1544.8	.6
284.000	510.	2859.	4.0	1546.7	1545.9	.8
286.000	379.	1262.	9.1	1547.2	1546.5	.7
288.000	432.	1792.	6.4	1551.4	1550.4	1.0
292.000	105.	967.	11.9	1554.5	1554.0	.5
294.000	340.	1508.	7.6	1558.6	1558.5	.1
296.000	310.	2205.	5.2	1560.0	1559.8	.2
298.000	200.	1716.	6.7	1561.2	1561.1	.1
300.000	177.	1153.	10.0	1562.8	1562.5	.3
302.000	445.	1352.	8.5	1568.7	1568.3	.4
304.000	653.	2216.	5.2	1572.0	1571.0	1.0
306.000	478.	2873.	4.0	1572.8	1572.4	.4
500.000	375.	1148.	10.0	1574.9	1574.0	.9
502.000	450.	2235.	5.1	1583.0	1582.1	.9
504.000	425.	1500.	7.7	1587.4	1586.5	.9
506.000	650.	1976.	5.8	1597.1	1596.2	.9
508.000	975.	2605.	4.4	1601.8	1600.8	1.0
510.000	750.	1456.	7.9	1613.3	1612.5	.8



100

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1420.97 ft

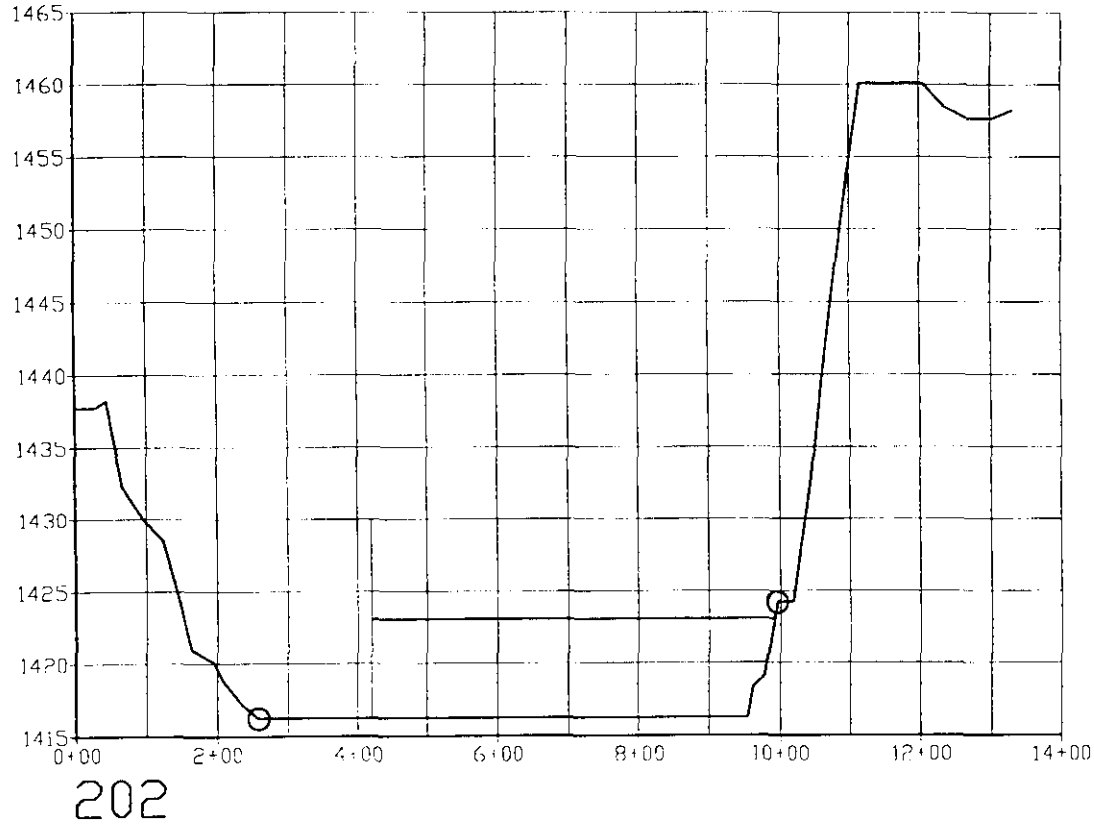
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1420.97 ft



105

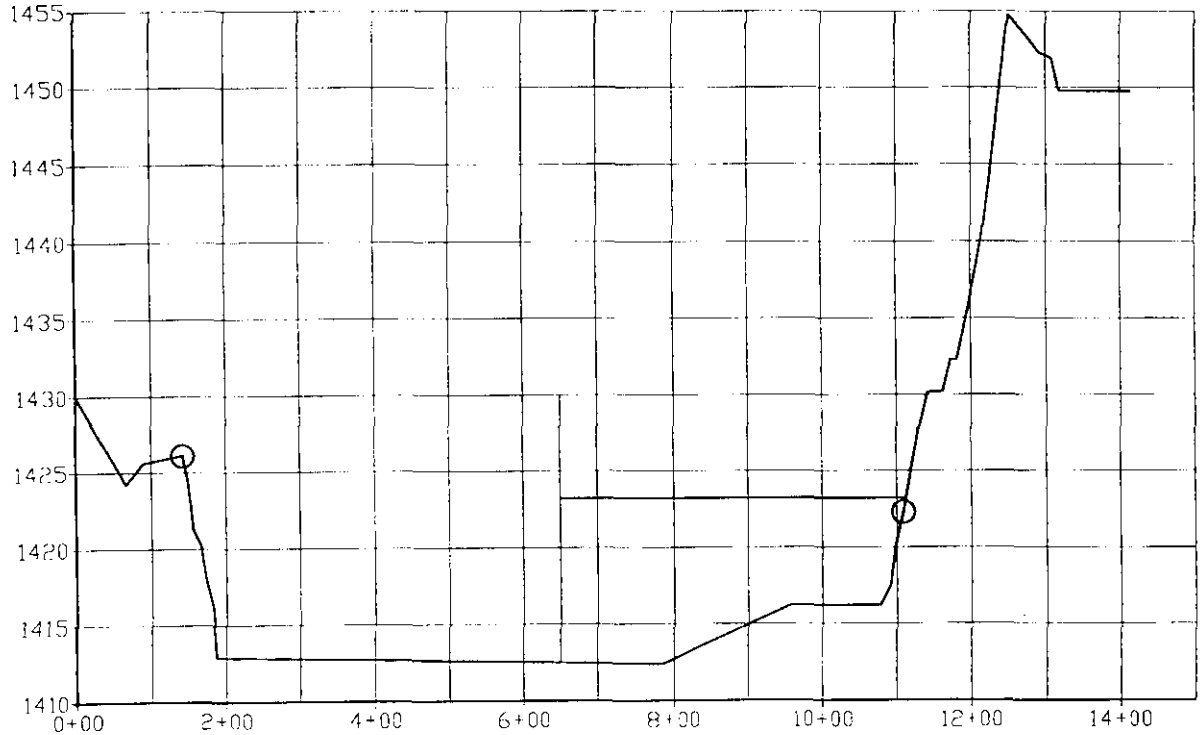
Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1423.06 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1423.06 ft



Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1423.07 ft

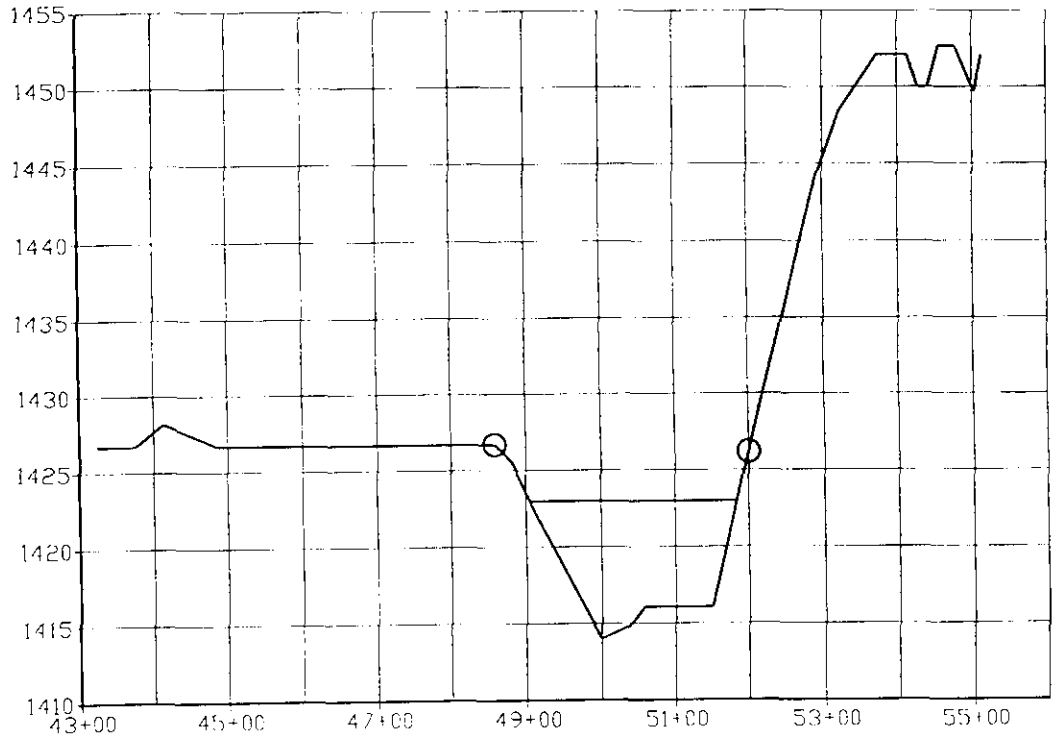
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1423.07 ft



204

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1423.21 ft

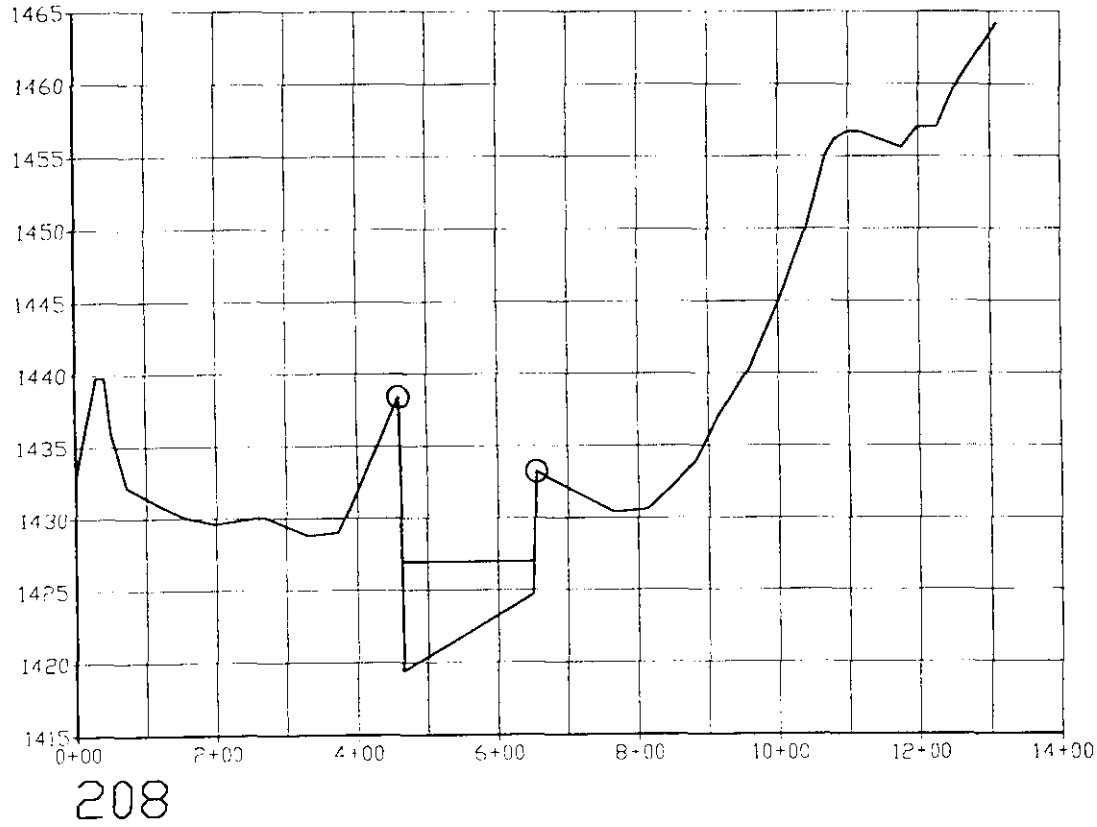
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1423.21 ft



206

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1422.96 ft

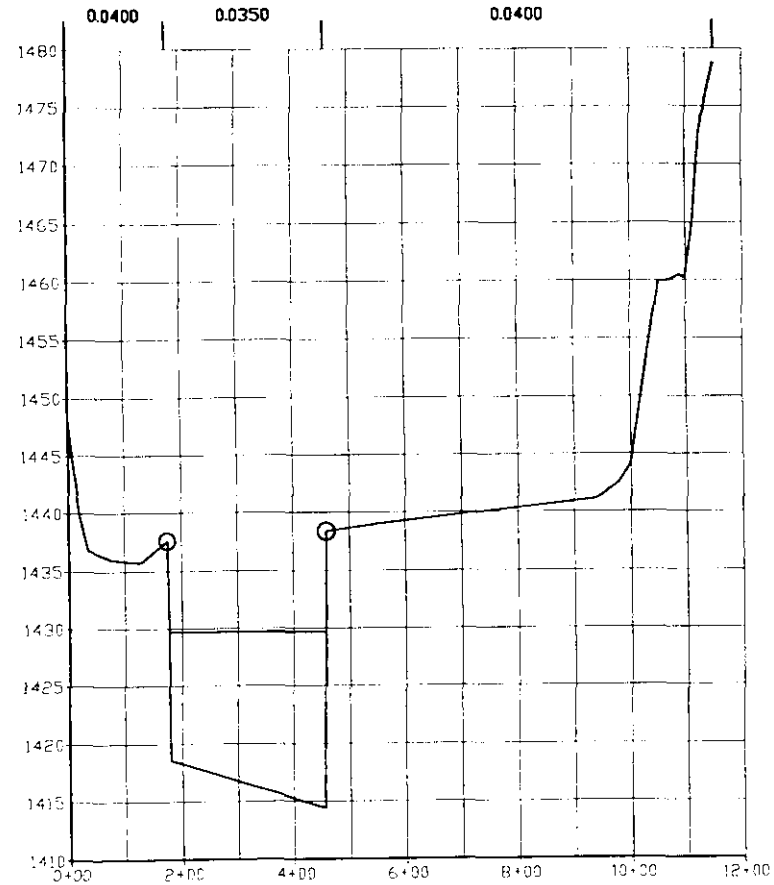
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1422.96 ft



208

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1426.96 ft

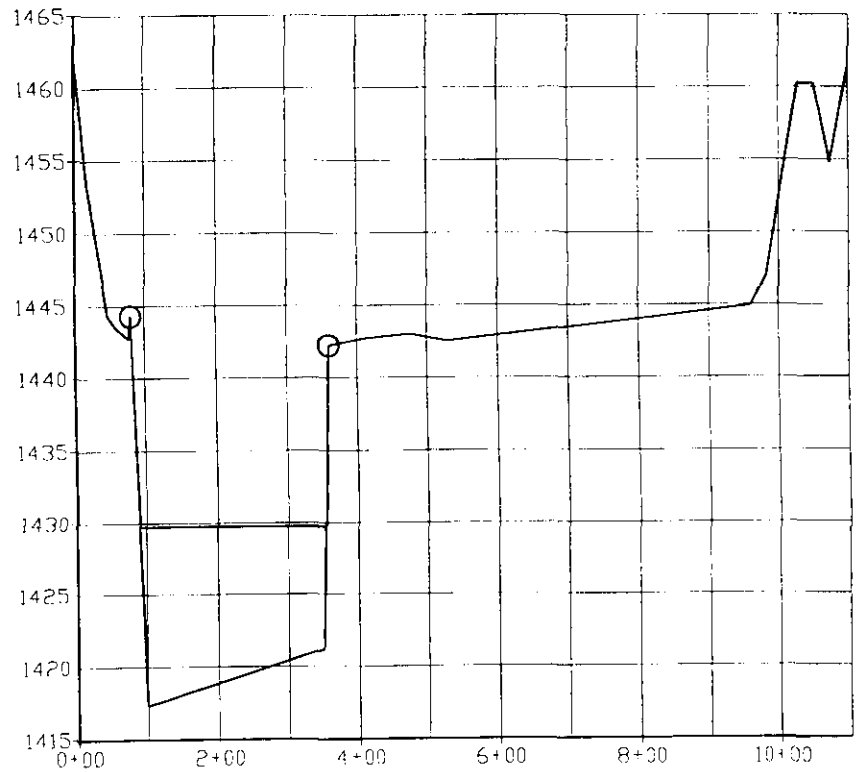
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1426.96 ft



210

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1429.69 ft

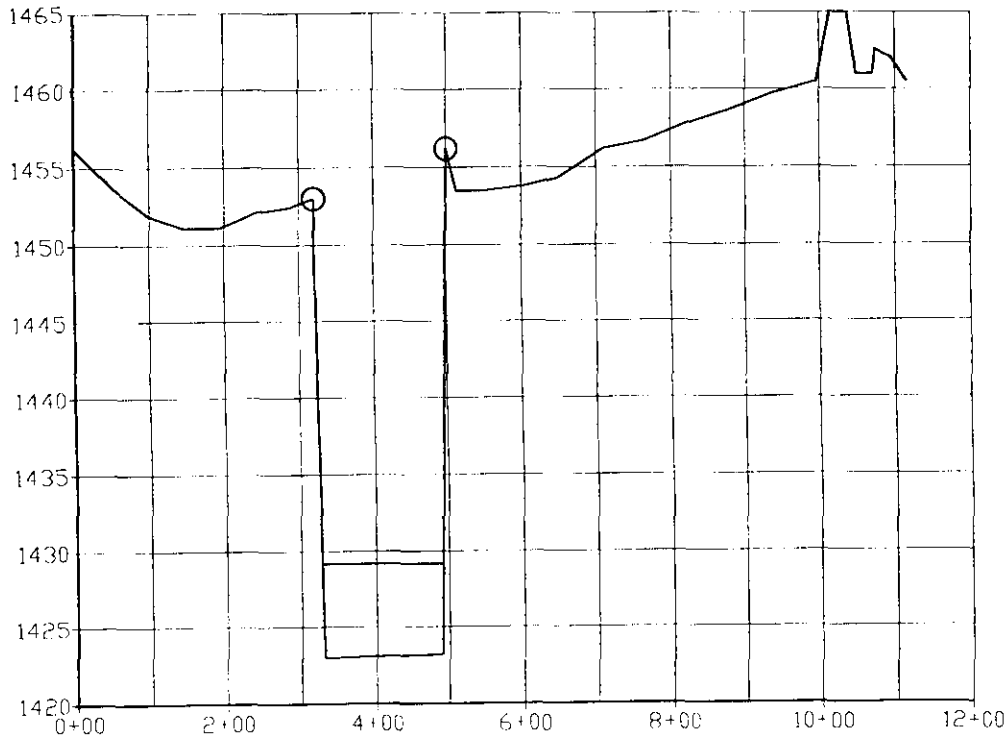
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1429.69 ft



212

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1429.73 ft

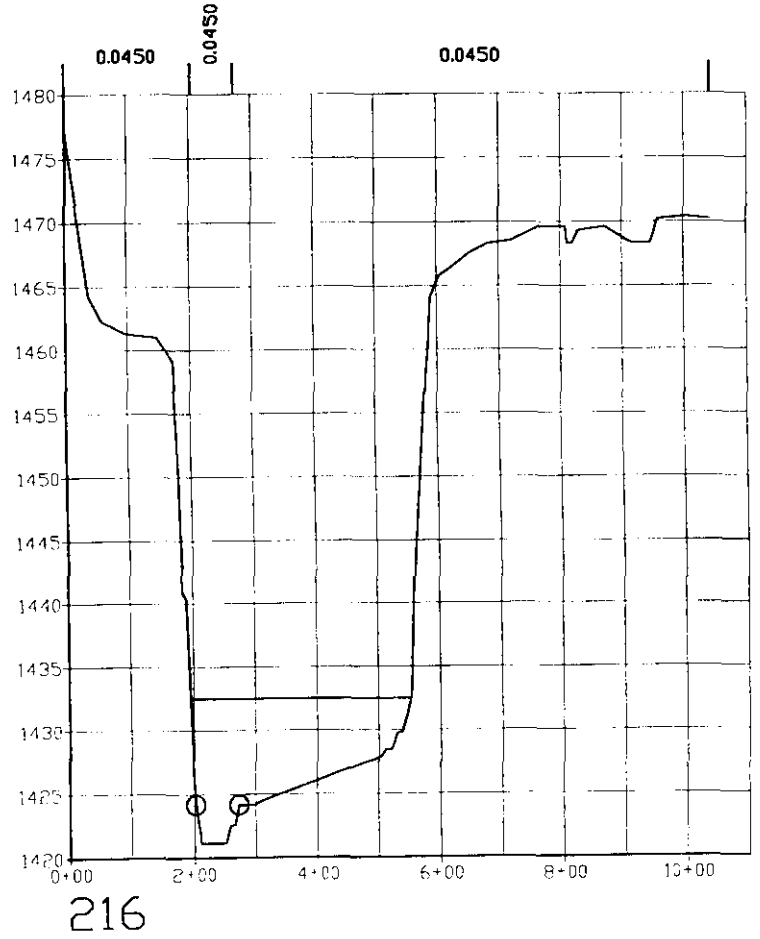
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1429.73 ft



214

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1429.17 ft

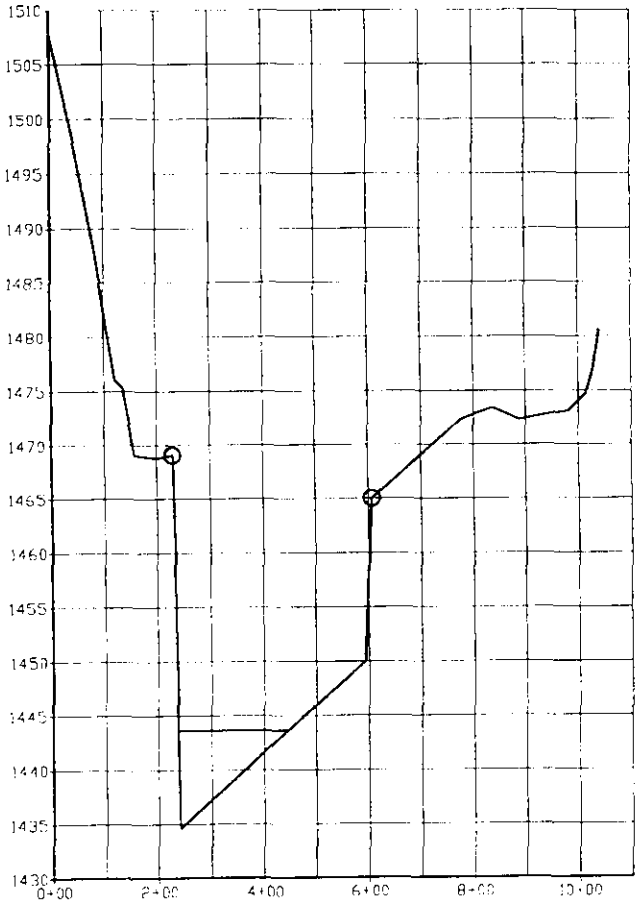
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1429.17 ft



216

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1432.51 ft

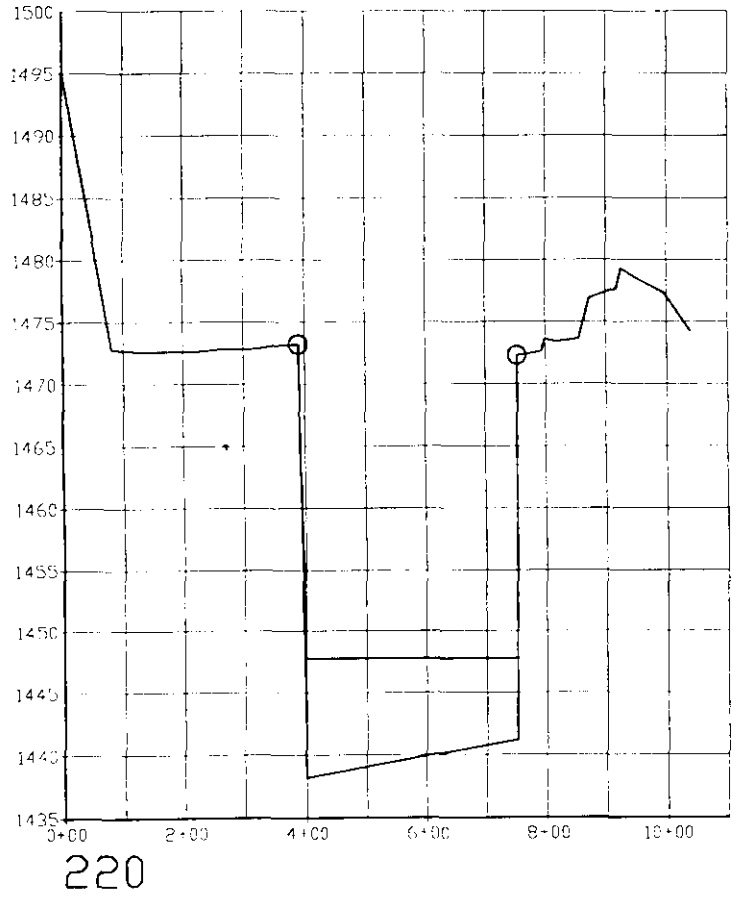
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1432.51 ft



218

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1443.60 ft

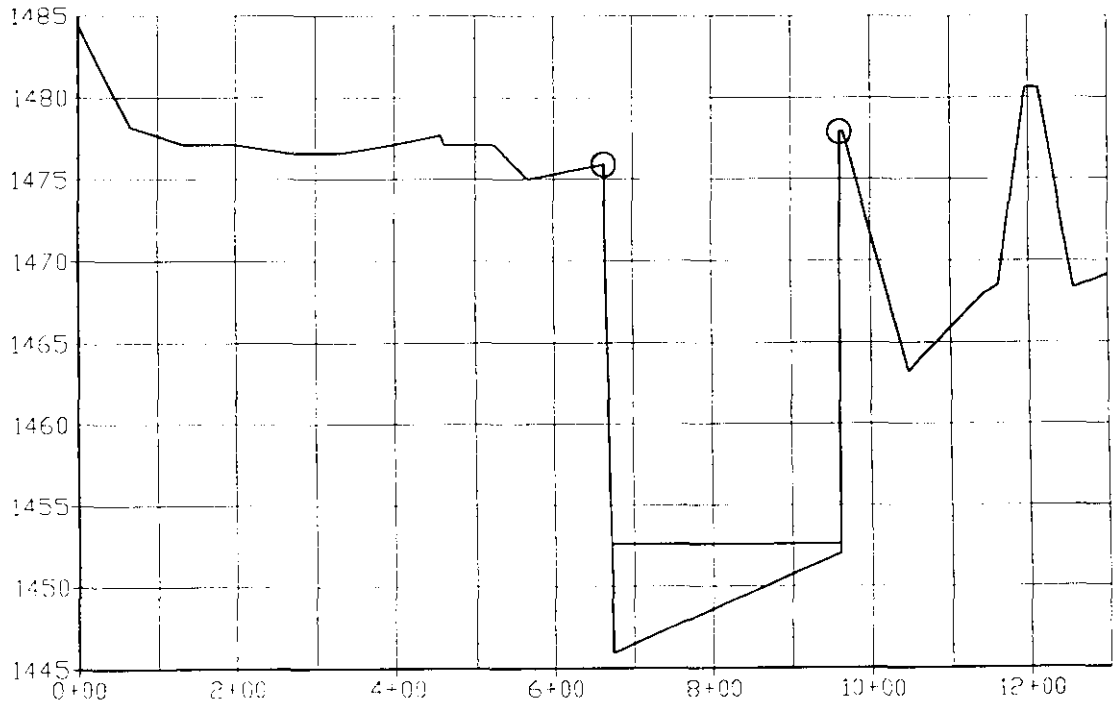
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1443.60 ft



220

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1447.79 ft

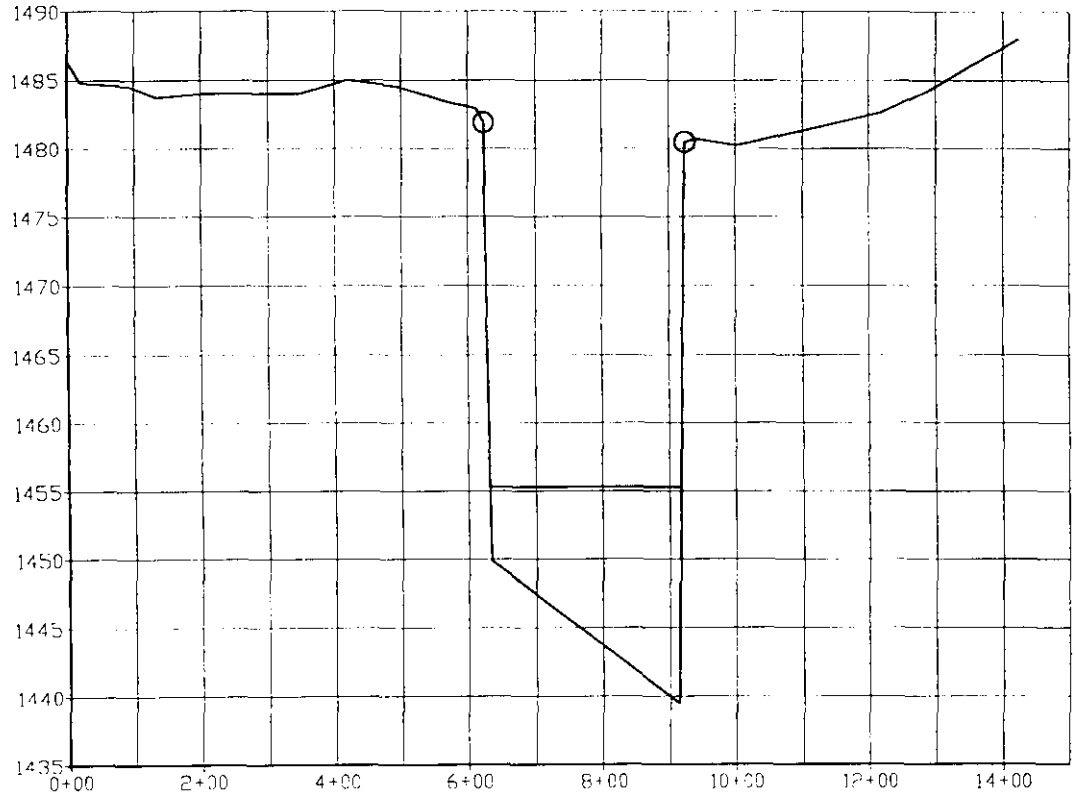
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1447.79 ft



222

Profile 2
Flow Discharge = 11500.00 cfs
– – – FLOODWAY WSEL = 1452.56 ft

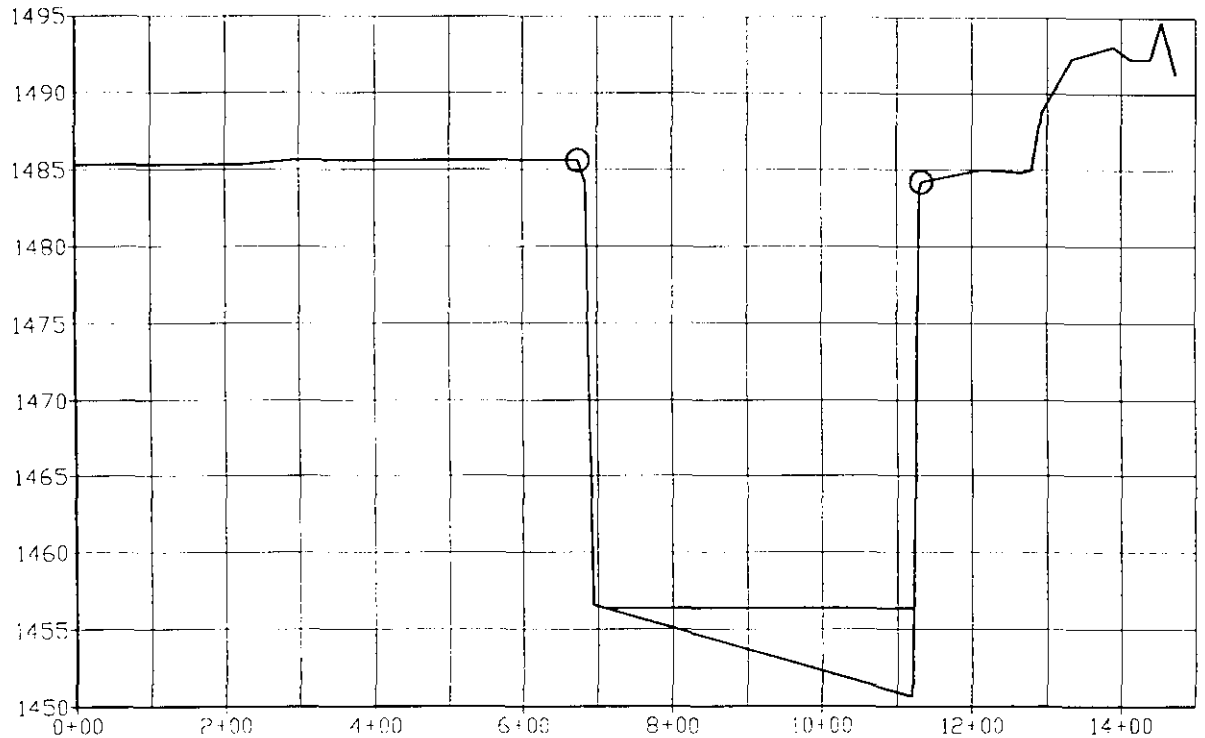
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1452.56 ft



224

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1455.30 ft

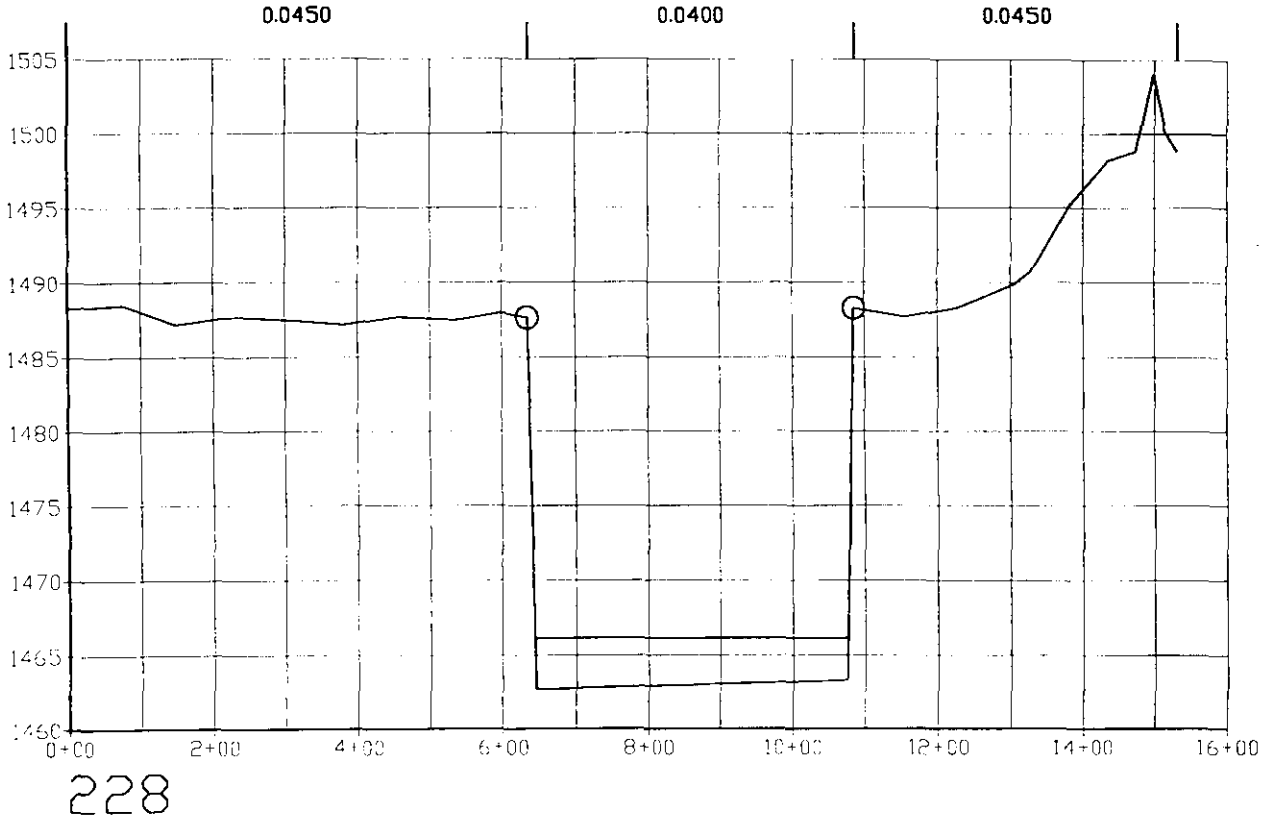
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1455.30 ft



226

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1456.39 ft

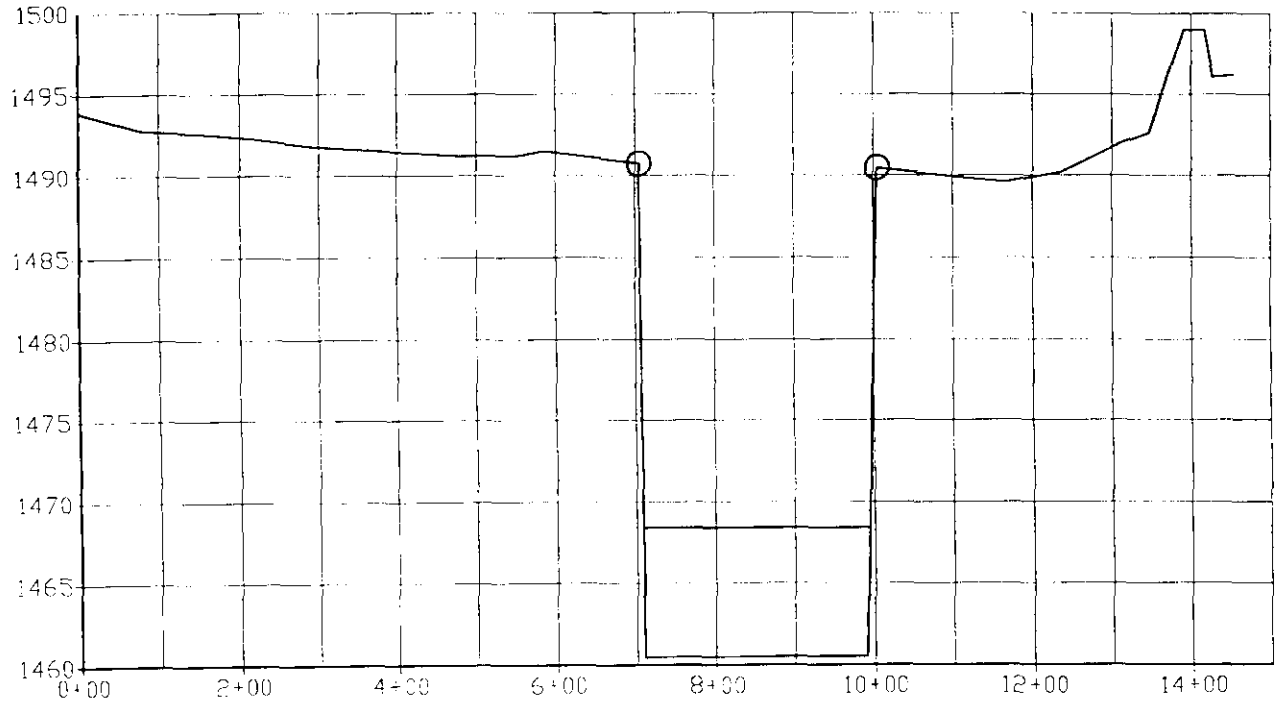
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1456.39 ft



228

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1466.14 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1466.14 ft



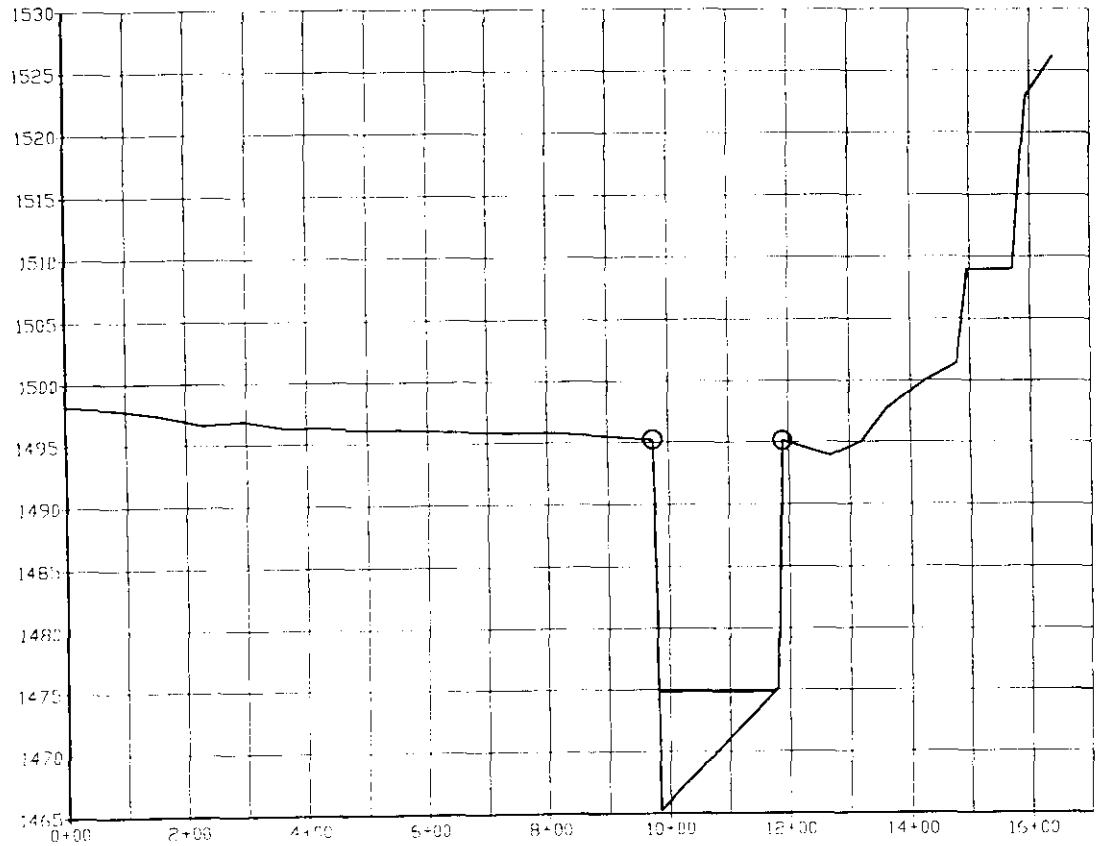
230

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1468.39 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1468.39 ft

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1468.89 ft

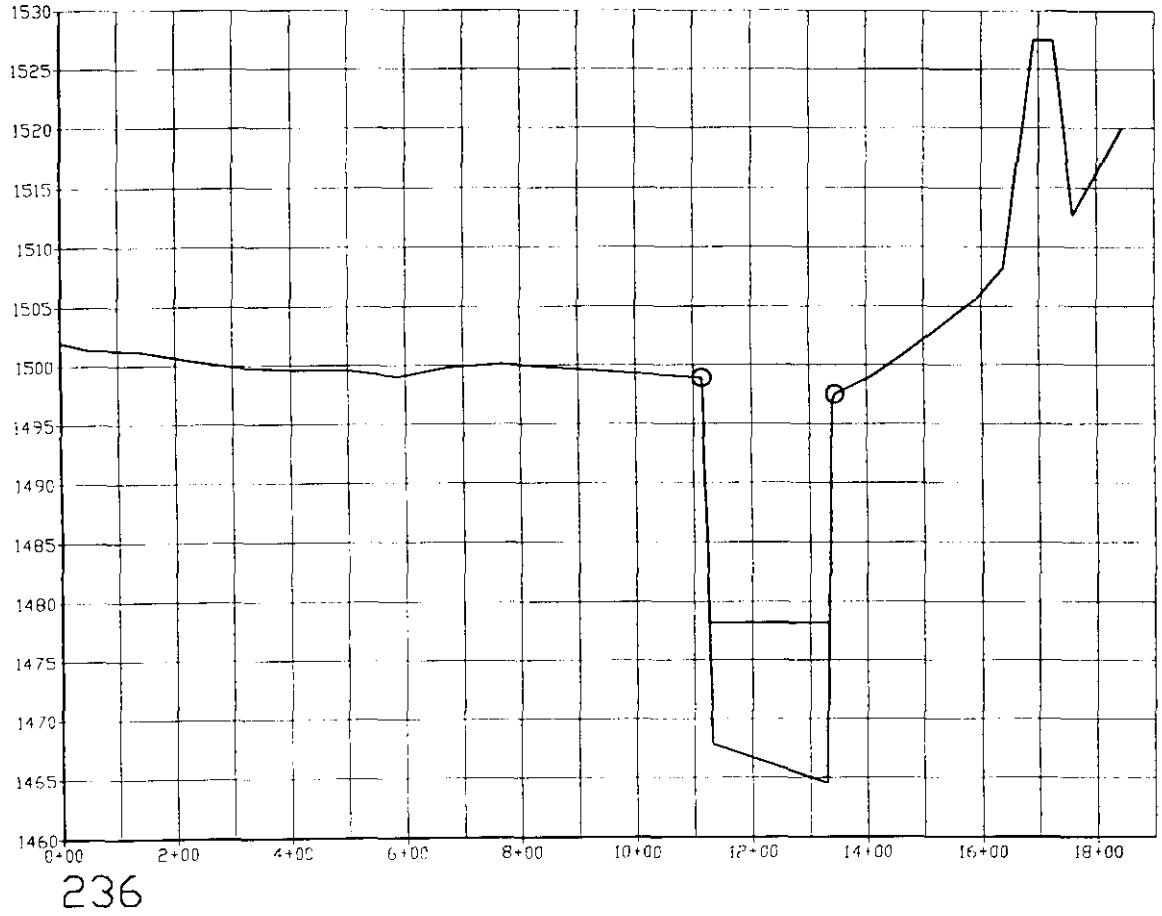
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1468.89 ft



234

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1474.81 ft

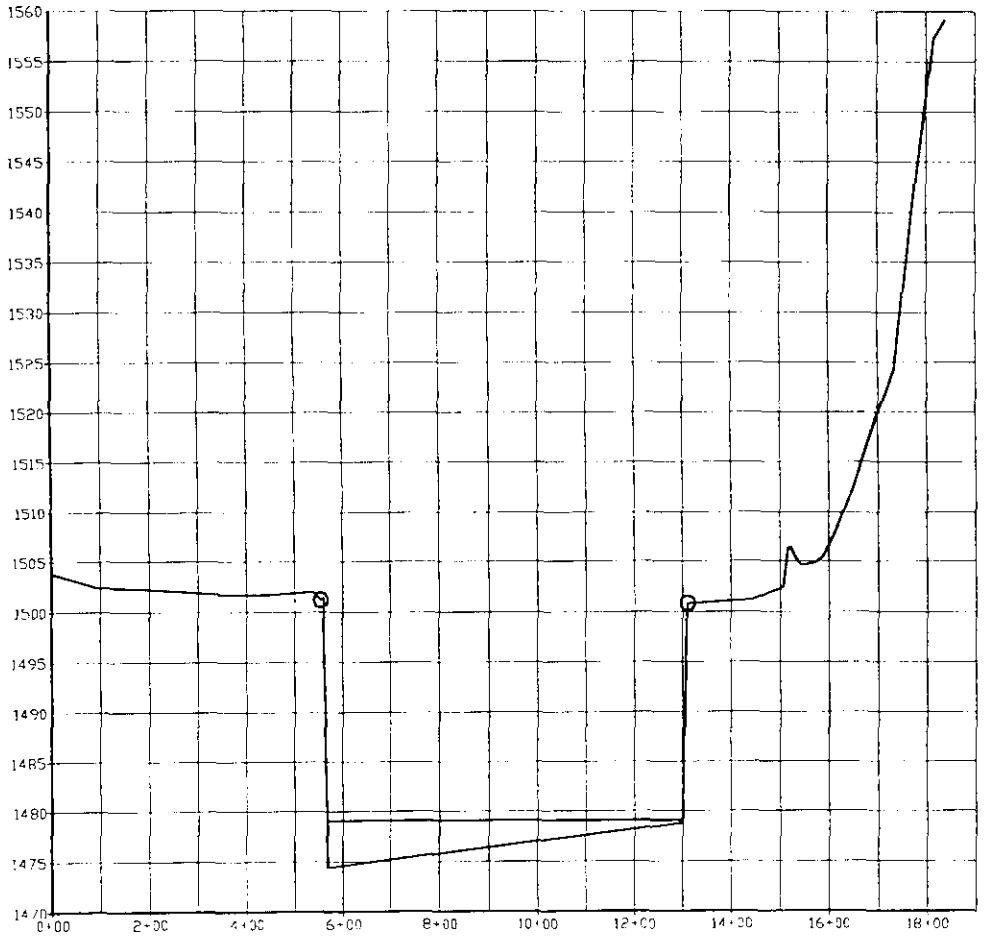
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1474.81 ft



236

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1478.14 ft

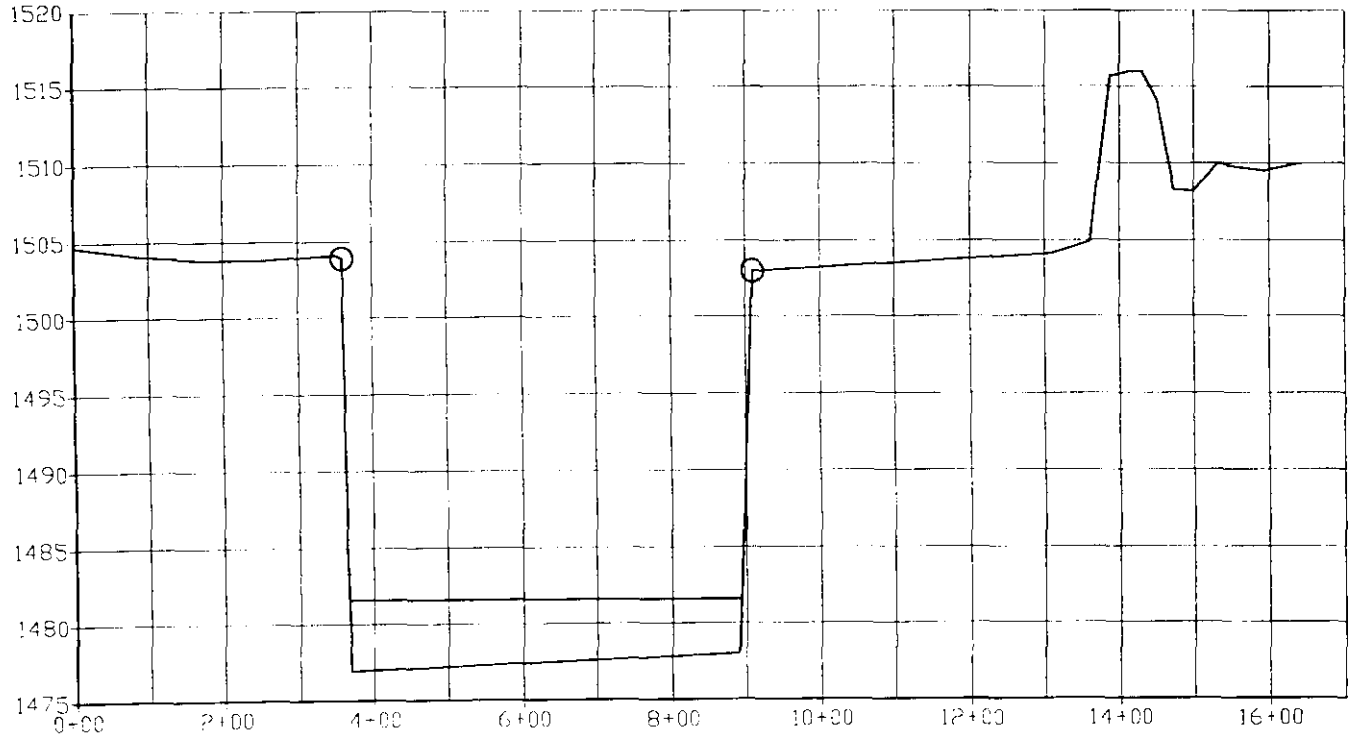
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1478.14 ft



238

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1479.07 ft

Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1479.07 ft



240

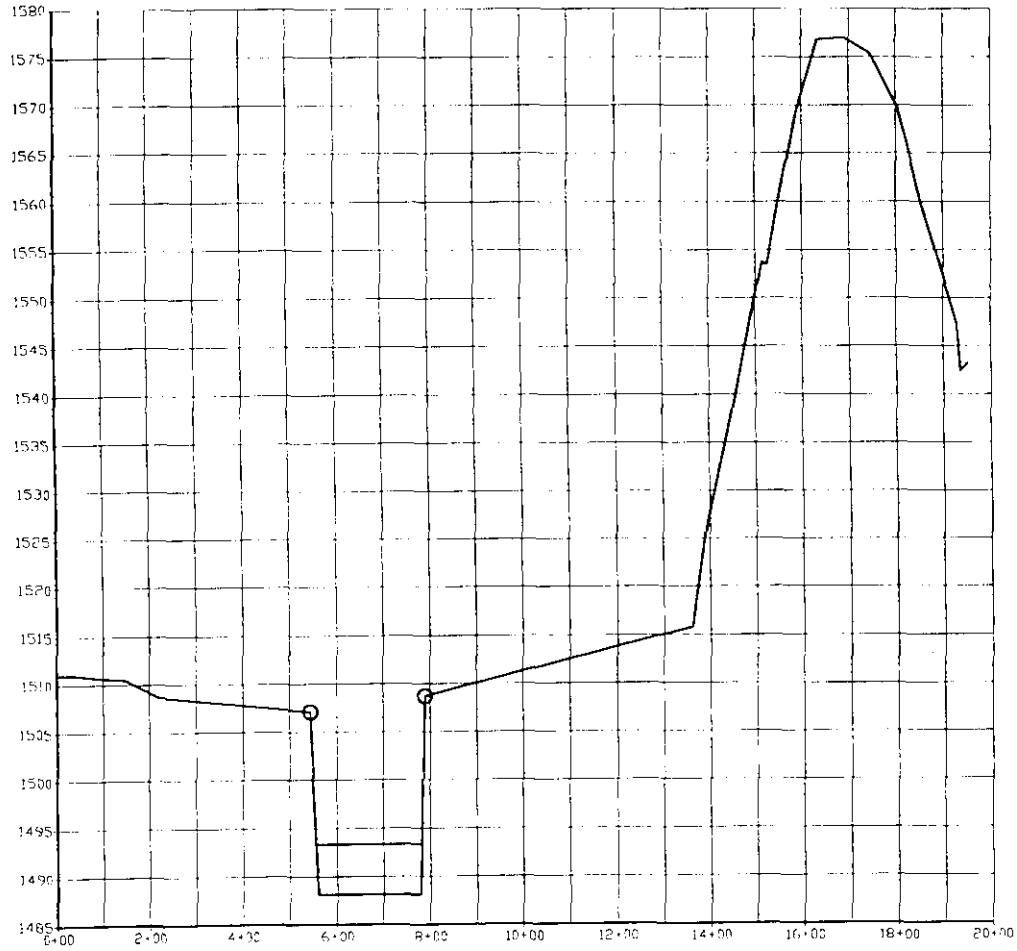
Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1481.56 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1481.56 ft

242

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1488.85 ft

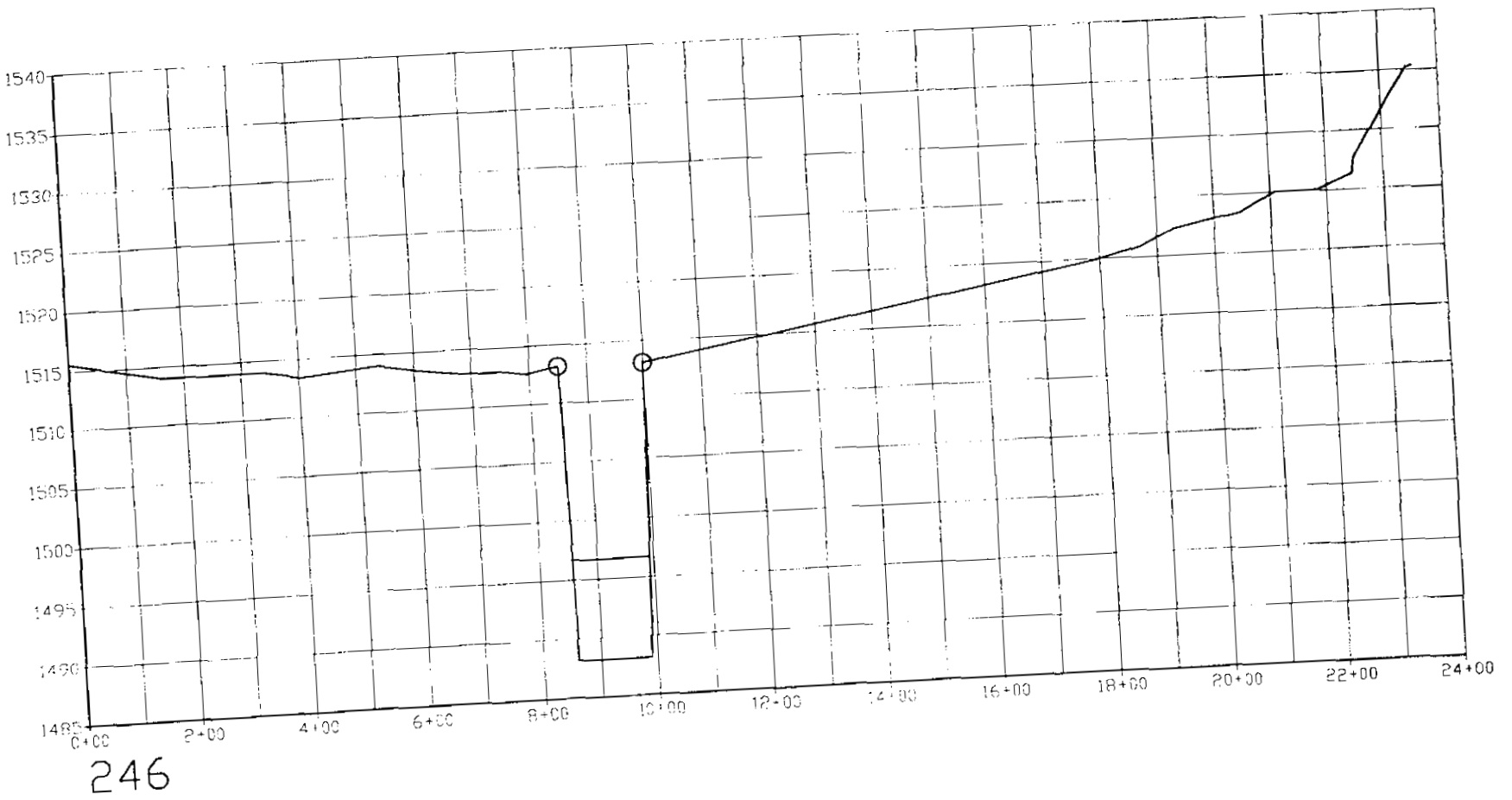
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1488.85 ft



244

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1493.35 ft

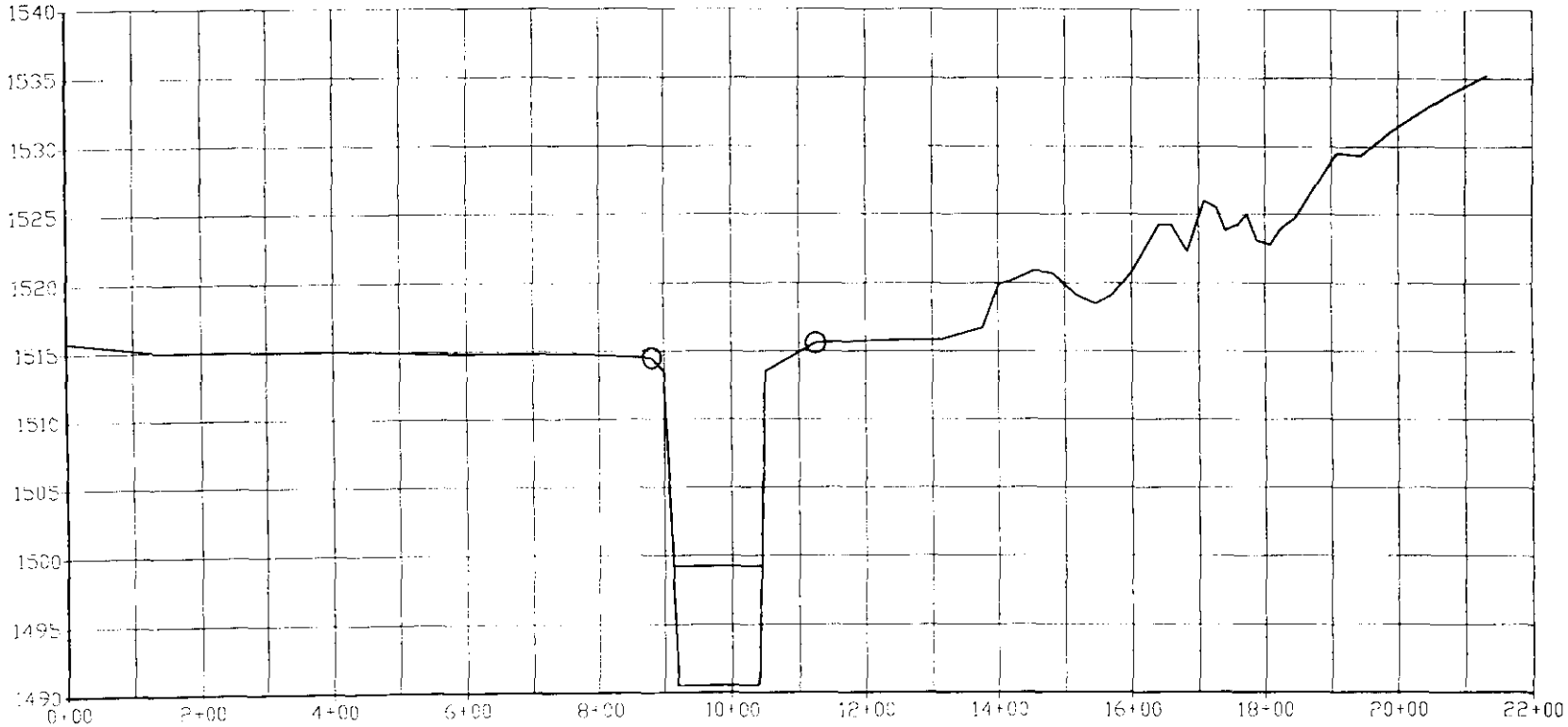
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1493.35 ft



246

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1496.64 ft

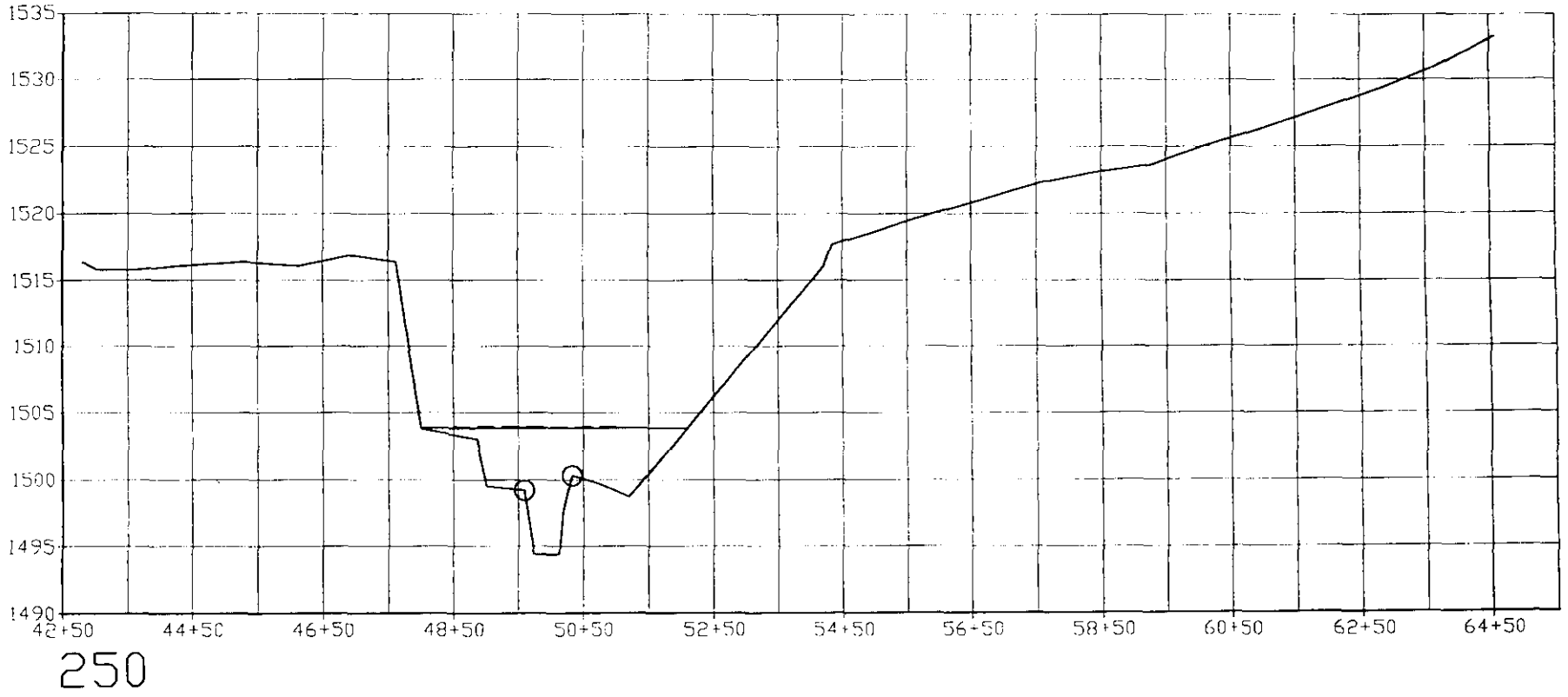
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1496.64 ft



248

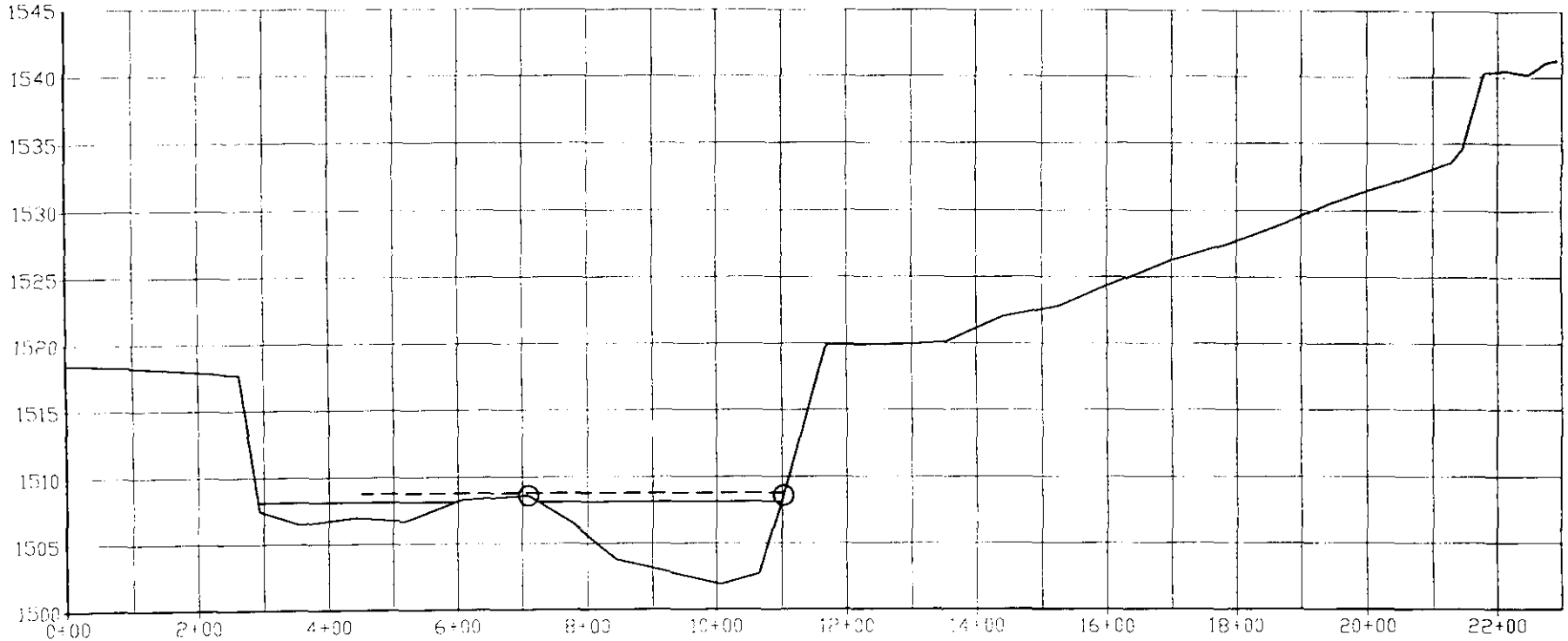
Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1499.23 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1499.23 ft



Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1503.92 ft

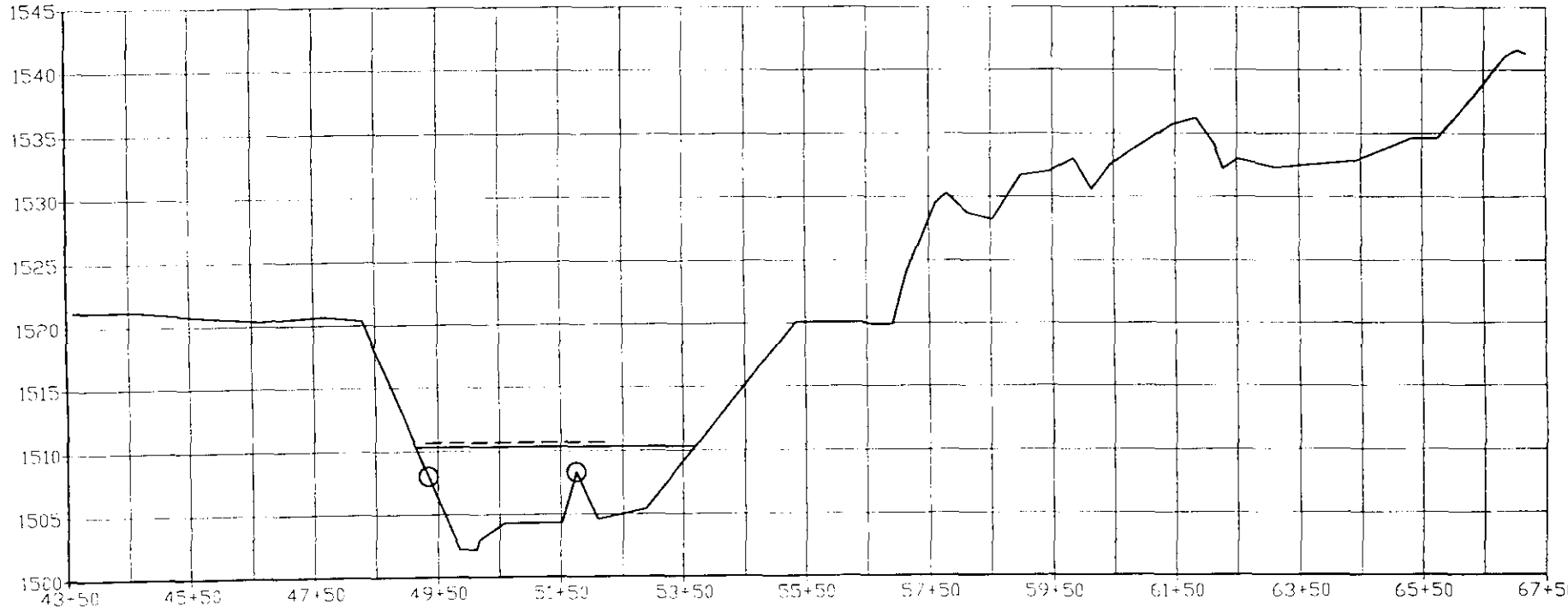
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1503.86 ft



252

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1508.79 ft

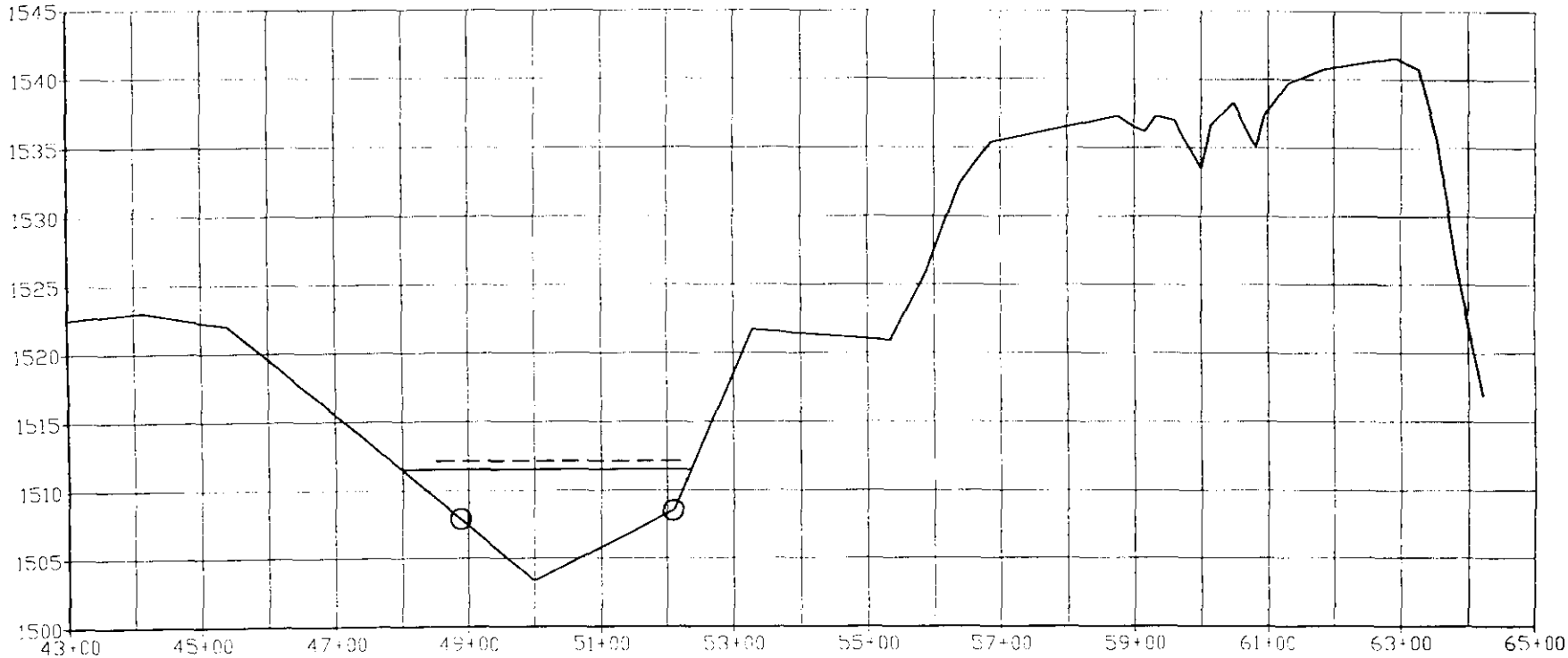
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1508.11 ft



254

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1510.64 ft

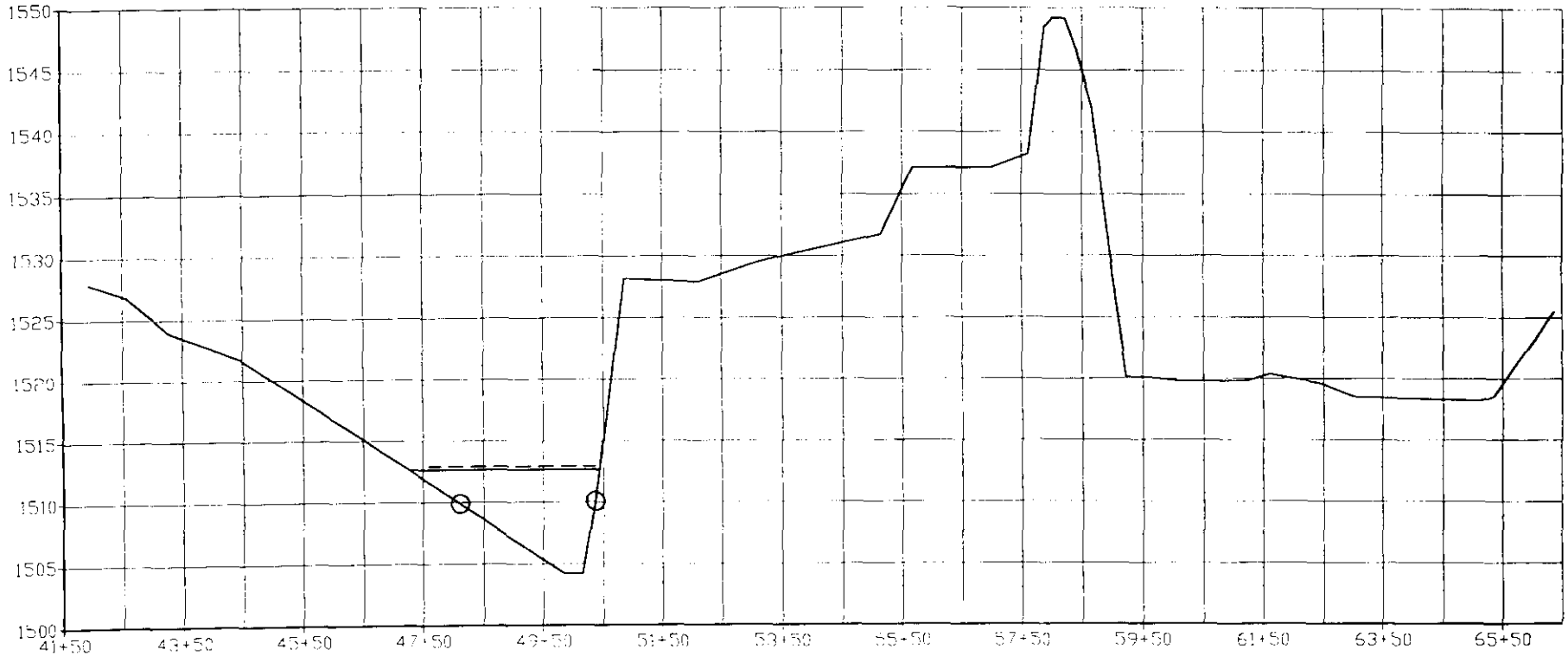
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1510.32 ft



256

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1512.13 ft

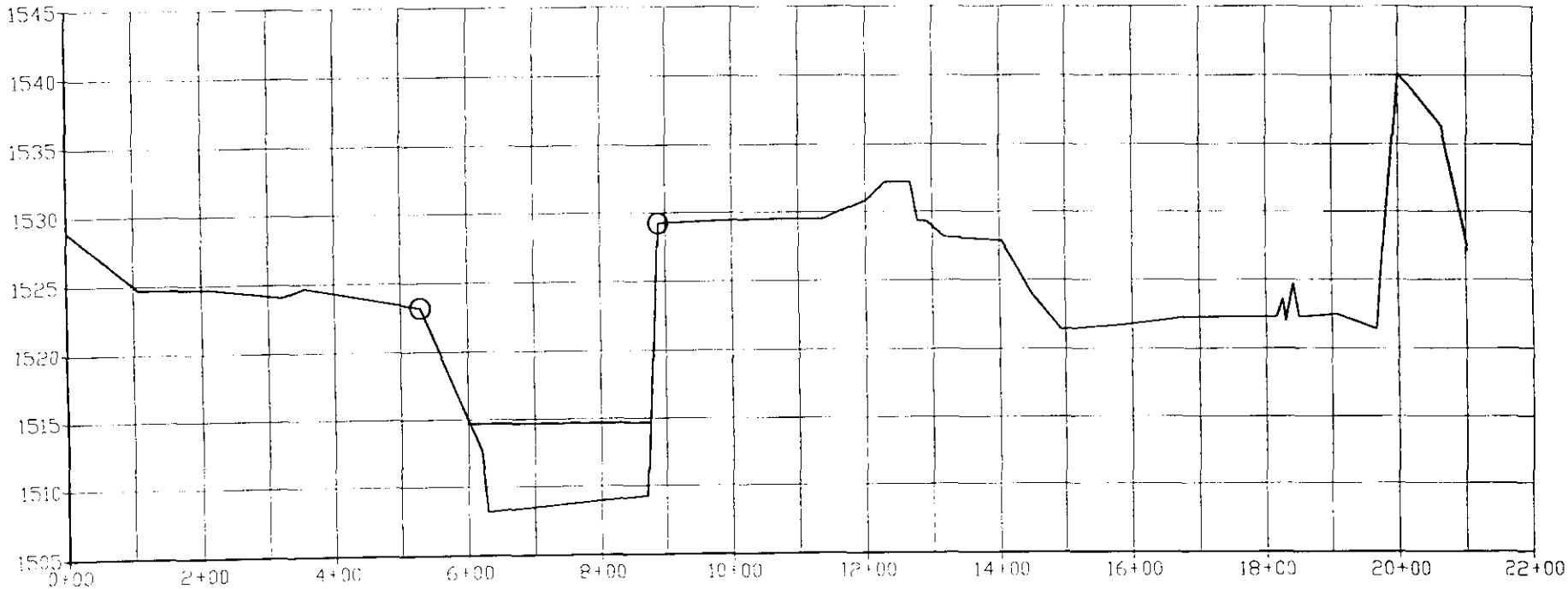
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1511.50 ft



258

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1512.91 ft

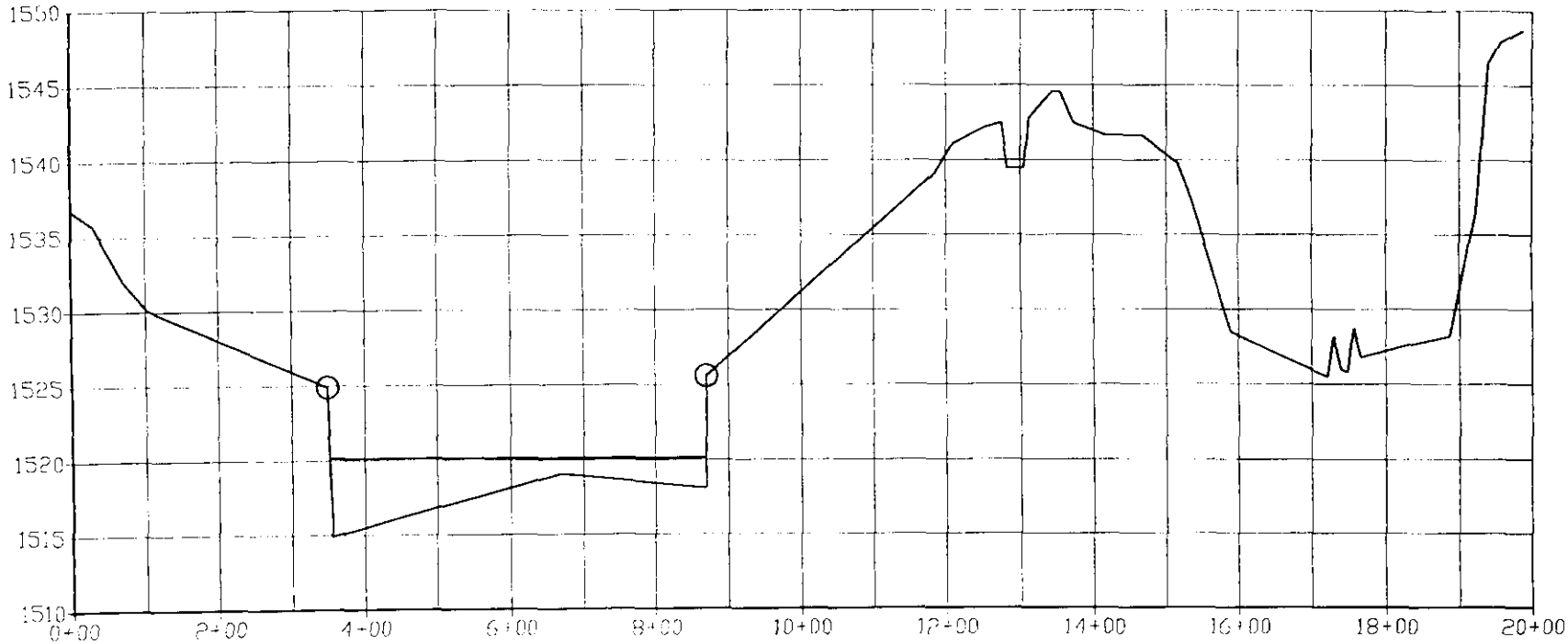
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1512.62 ft



260

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1514.67 ft

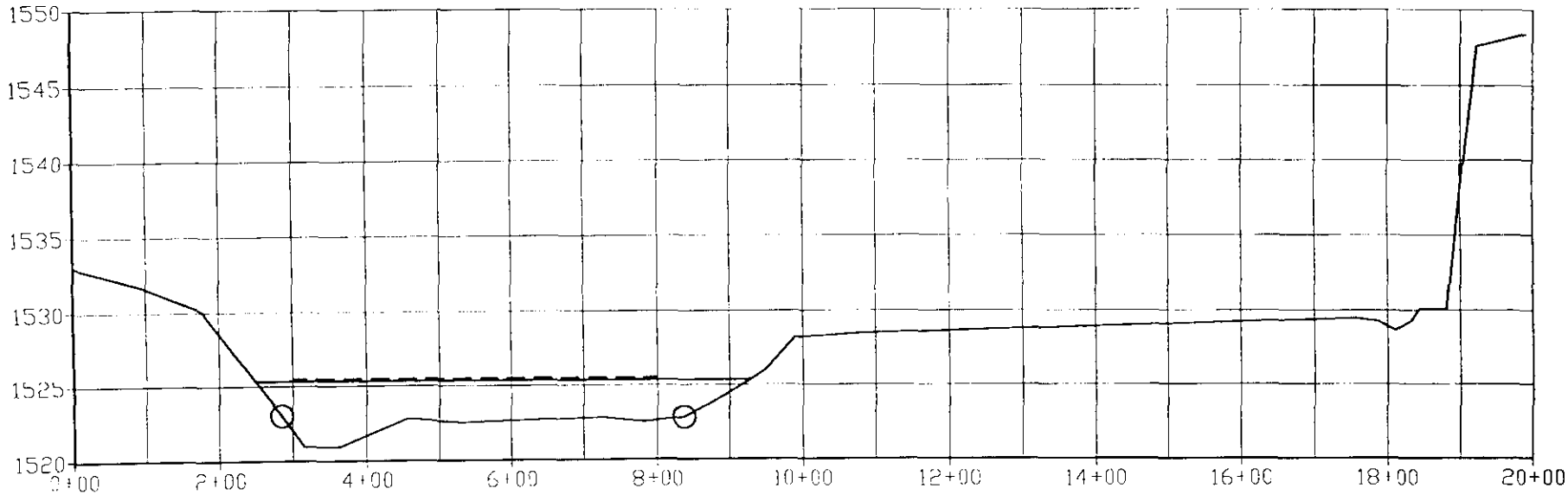
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1514.64 ft



262

Profile 2
Flow Discharge = 11500.00 cfs
– – – FLOODWAY WSEL = 1520.09 ft

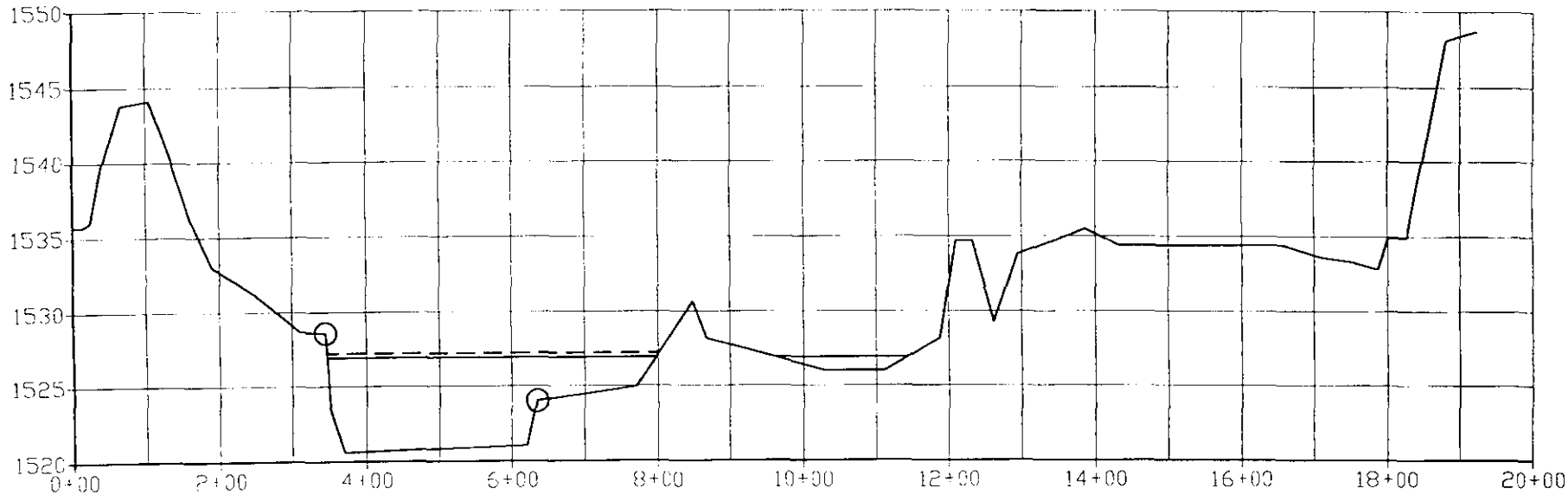
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1520.09 ft



264

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1525.50 ft

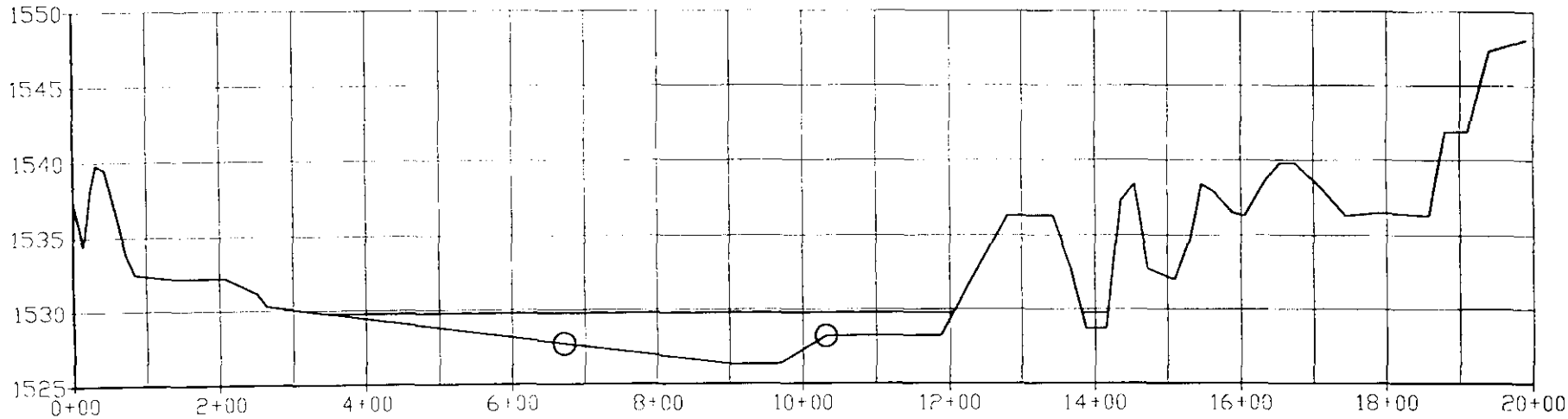
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1525.35 ft



266

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1527.23 ft

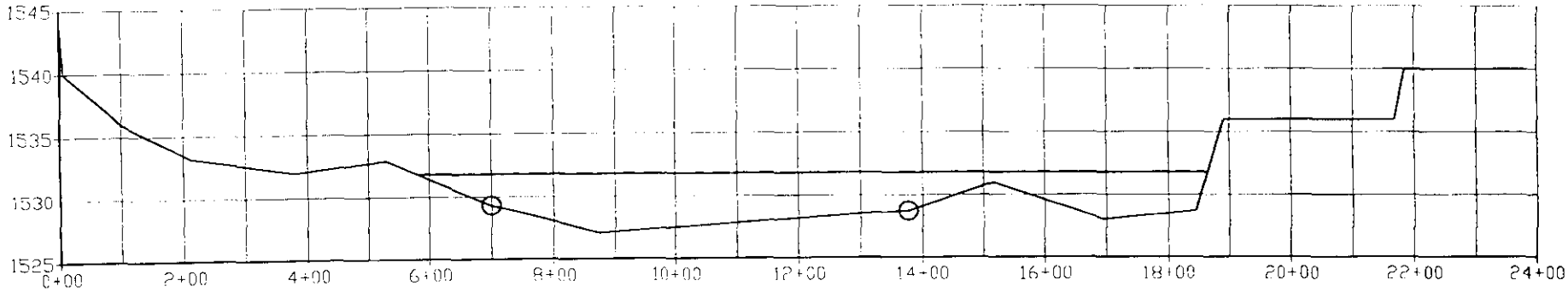
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1526.93 ft



268

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1529.79 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1529.76 ft

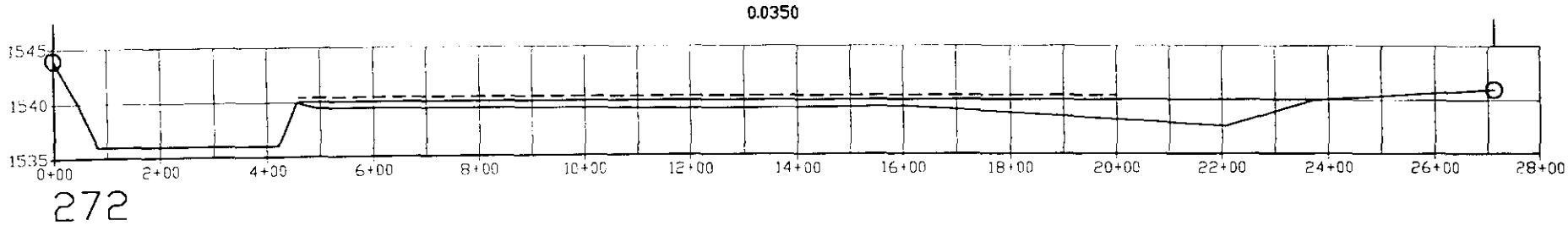


270

Telephone Line Road Crossing, Culverts assumed blocked

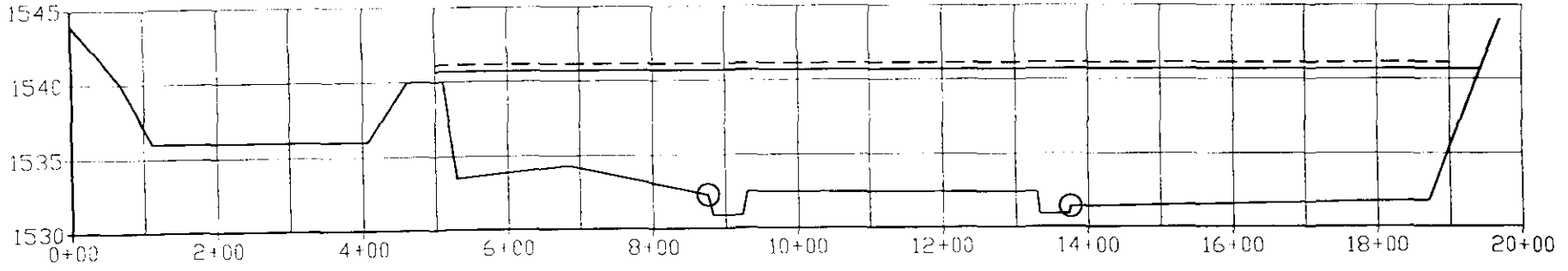
Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1531.85 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1531.79 ft



Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1540.46 ft

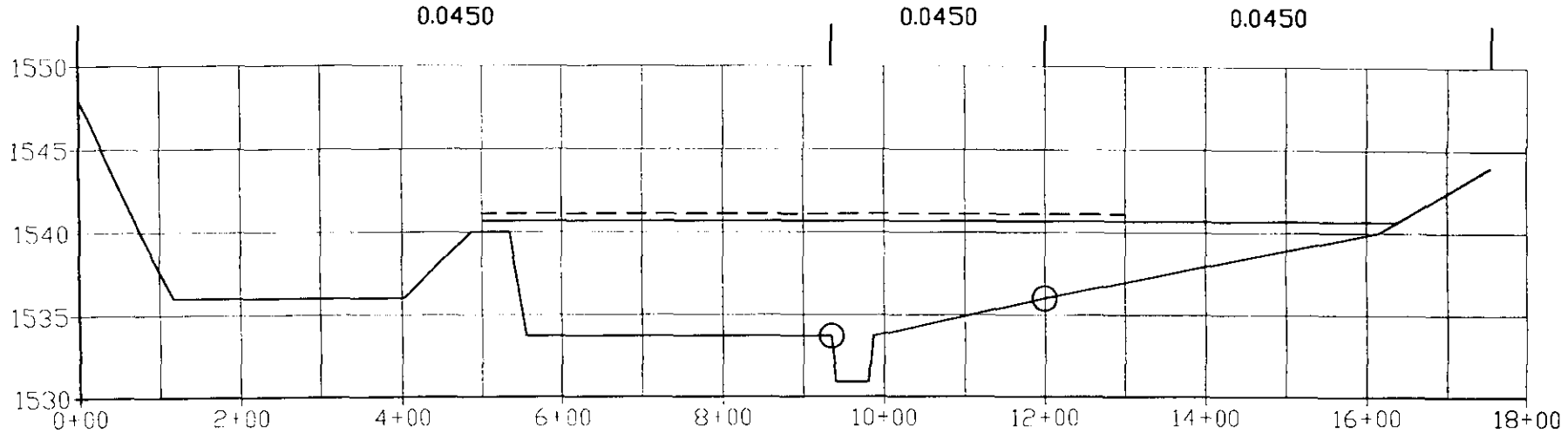
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1540.07 ft



274

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1541.12 ft

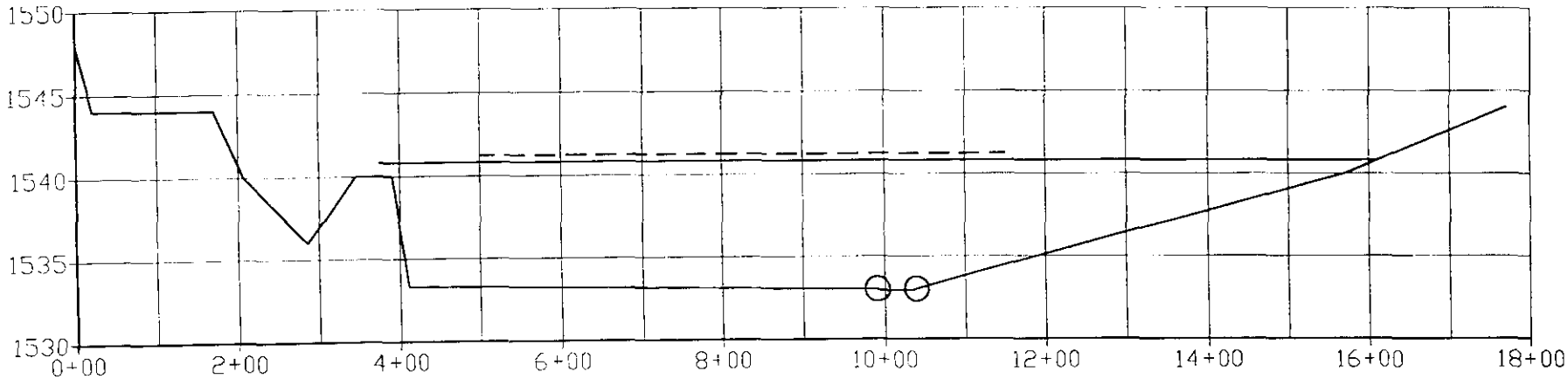
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1540.69 ft



276

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1541.10 ft

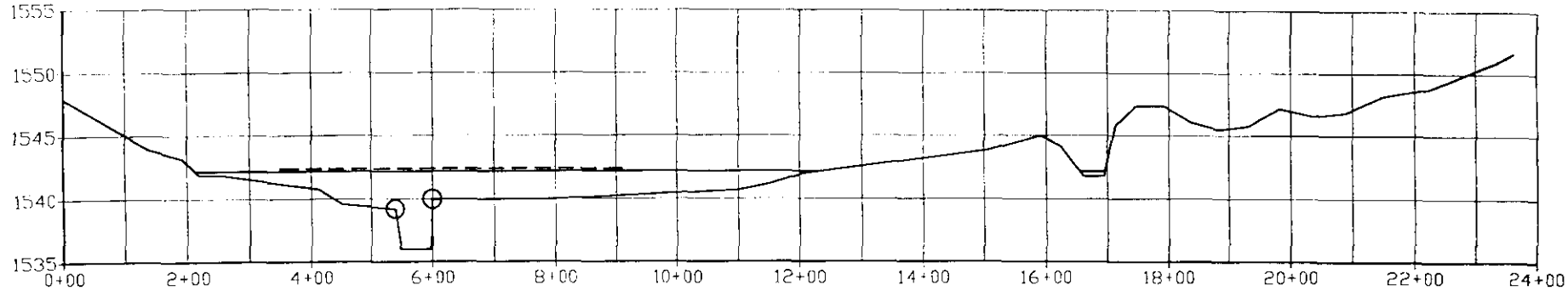
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1540.68 ft



278

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1541.21 ft

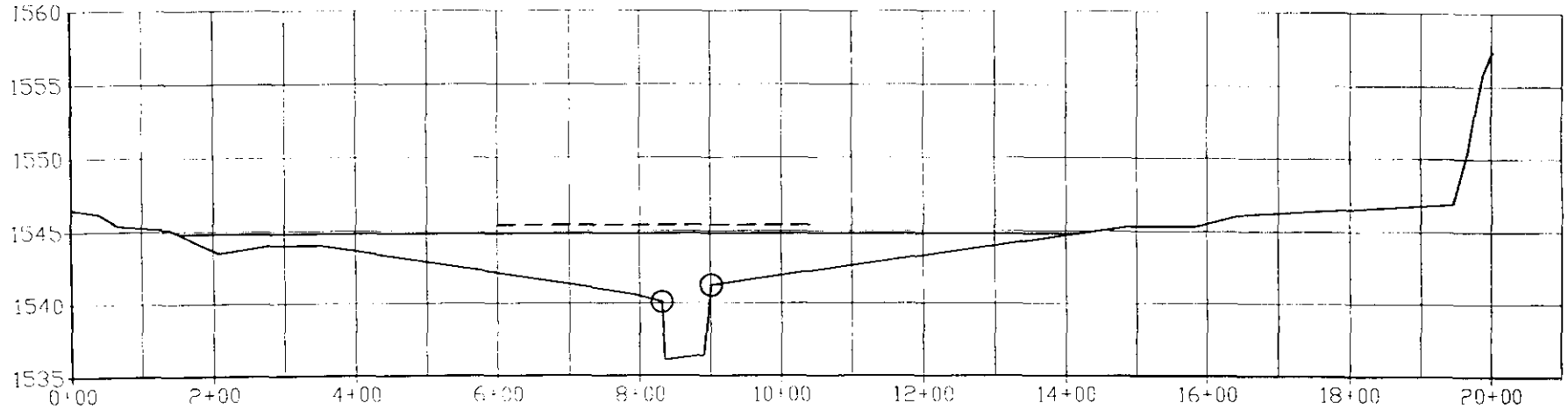
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1540.81 ft



280

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1542.41 ft

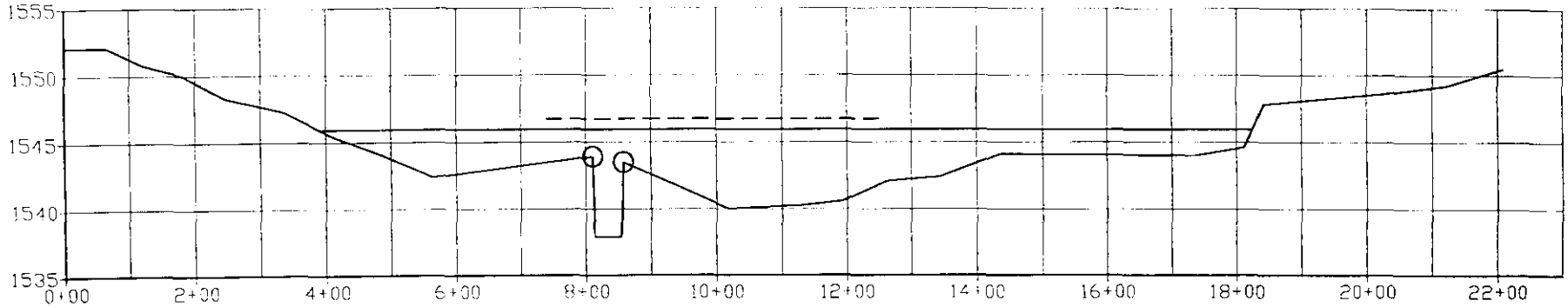
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1542.19 ft



282

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1545.36 ft

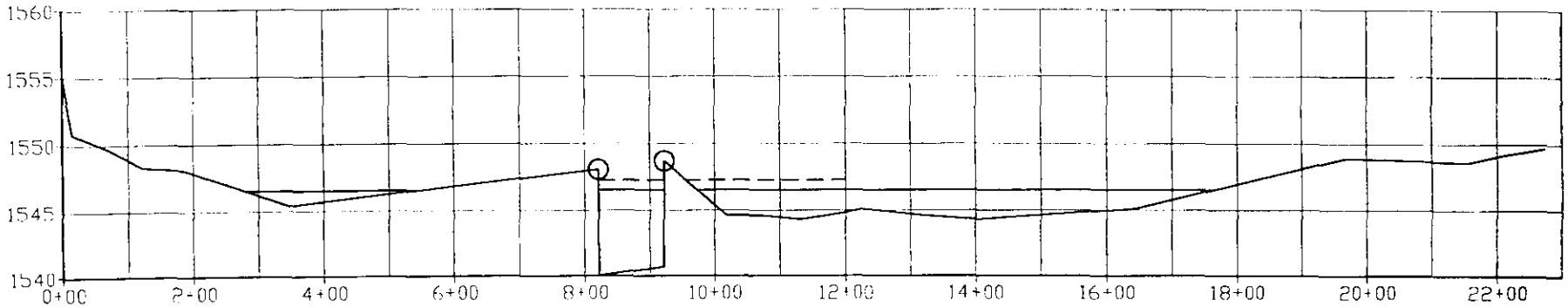
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1544.79 ft



284

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1546.72 ft

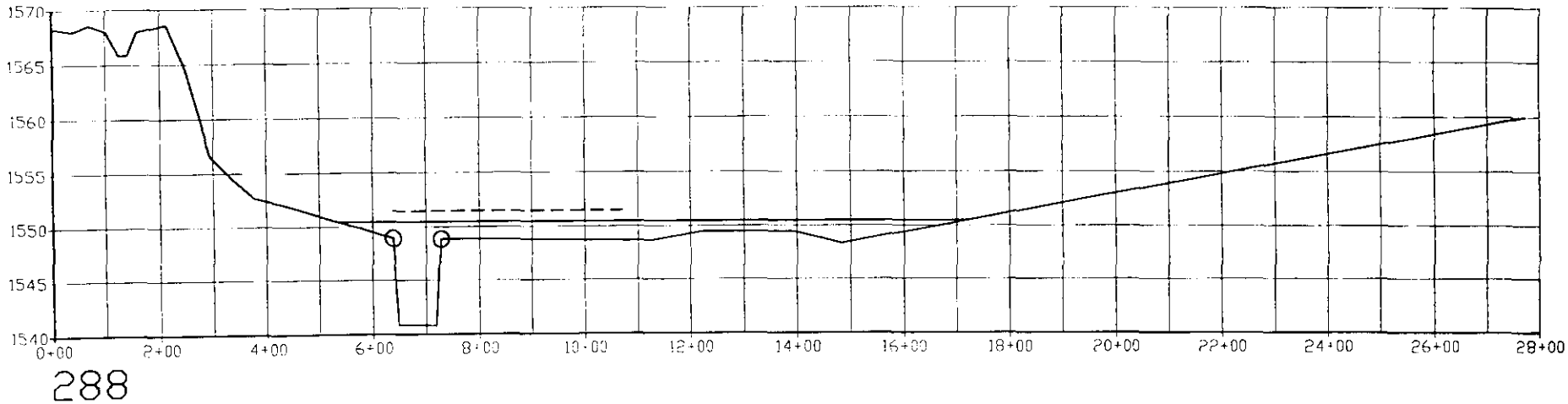
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1545.91 ft



286

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1547.24 ft

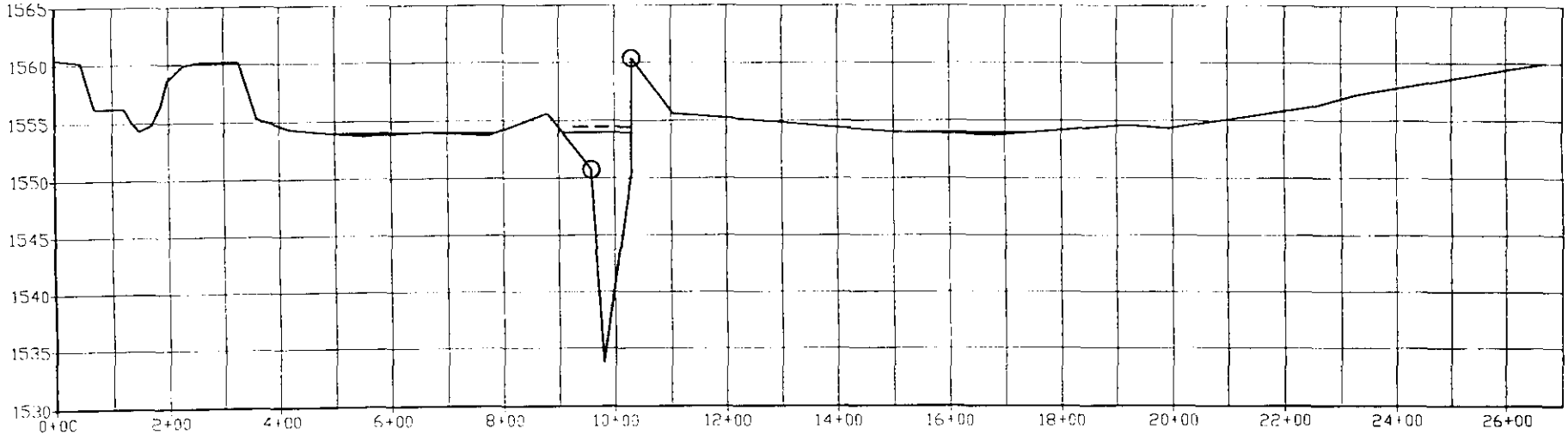
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1546.53 ft



288

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1551.43 ft

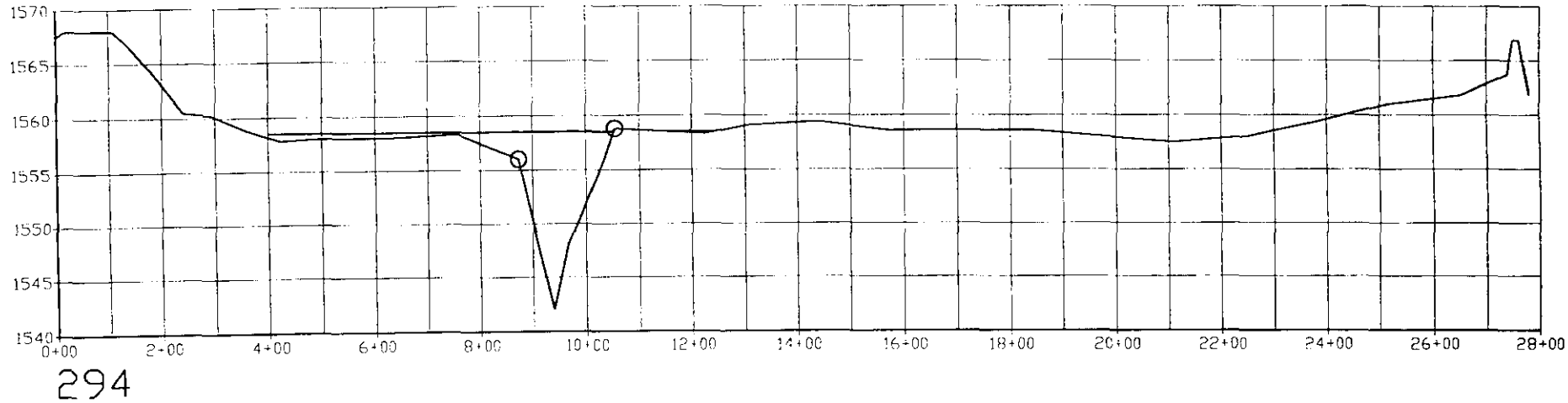
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1550.44 ft



292

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1554.44 ft

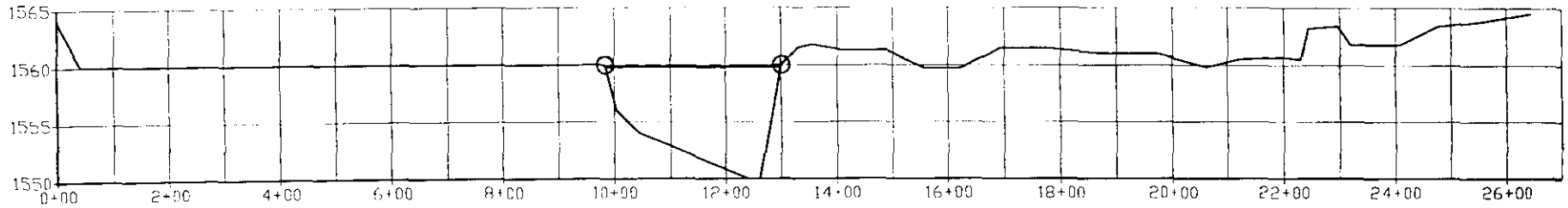
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1553.95 ft



294

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1558.54 ft

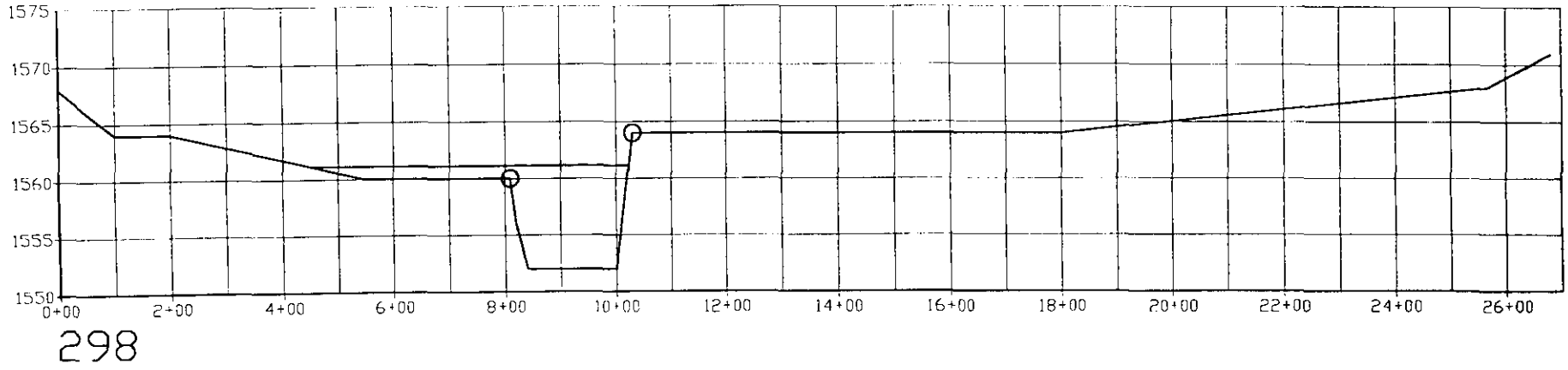
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1558.47 ft



296

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1559.97 ft

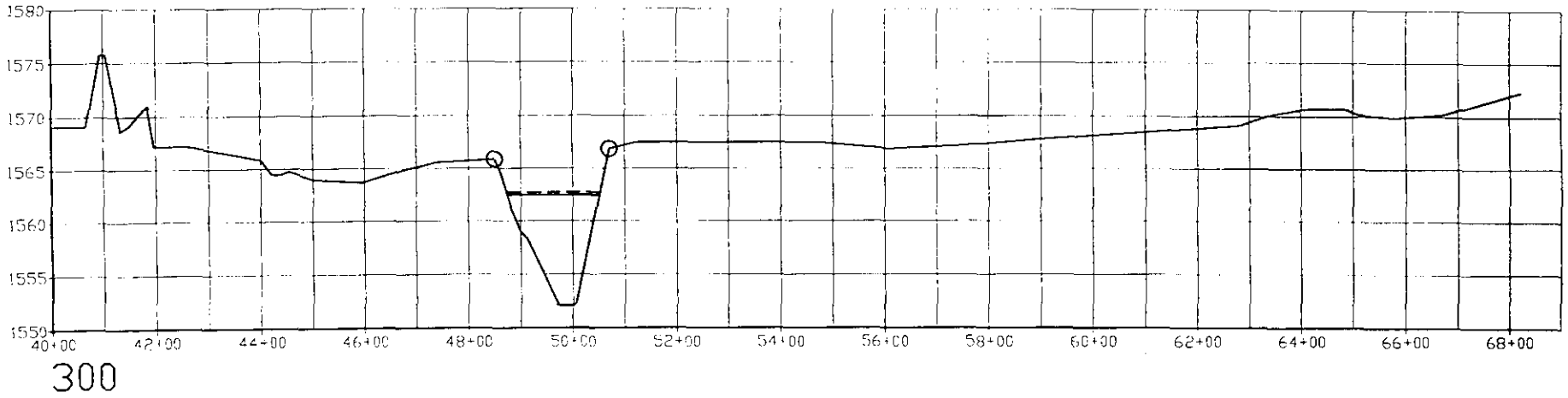
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1559.80 ft



298

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1561.18 ft

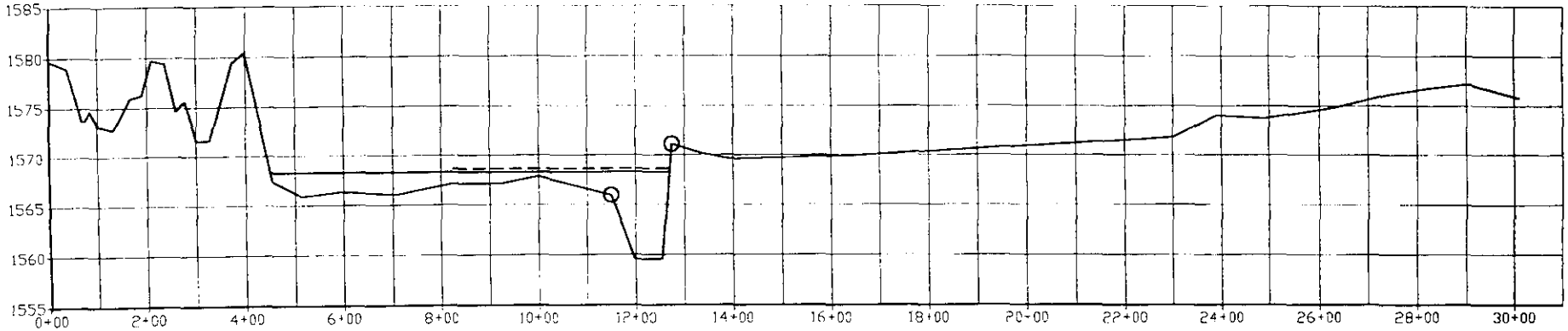
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1561.11 ft



300

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1562.75 ft

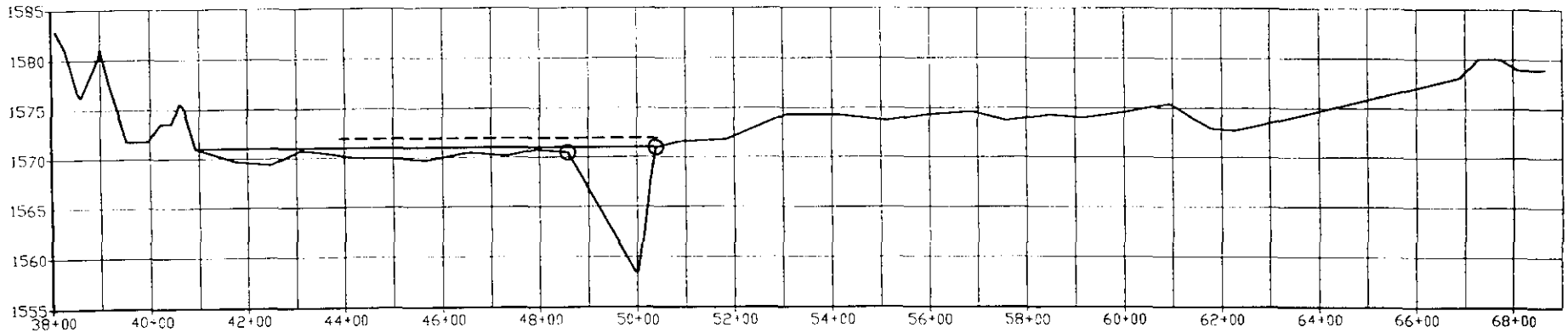
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1562.50 ft



302

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1568.65 ft

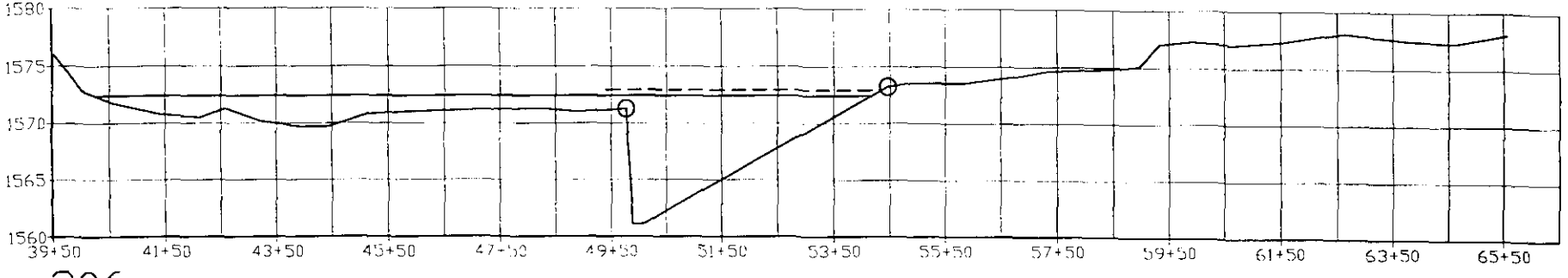
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1568.29 ft



304

ProfRe 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1571.99 ft

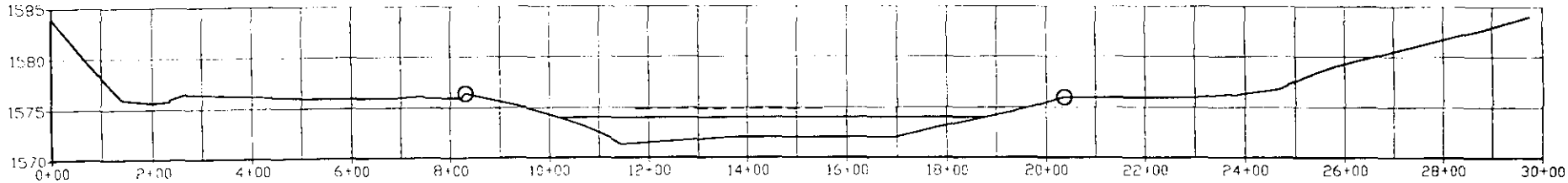
ProfRe 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1571.03 ft



306

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1572.88 ft

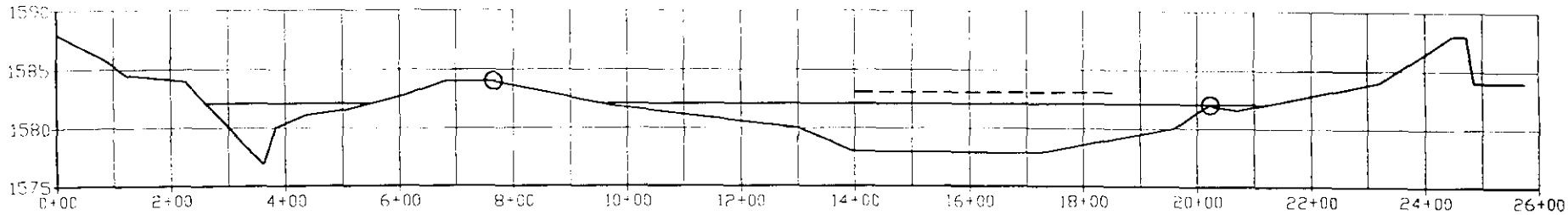
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1572.43 ft



500

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1574.92 ft

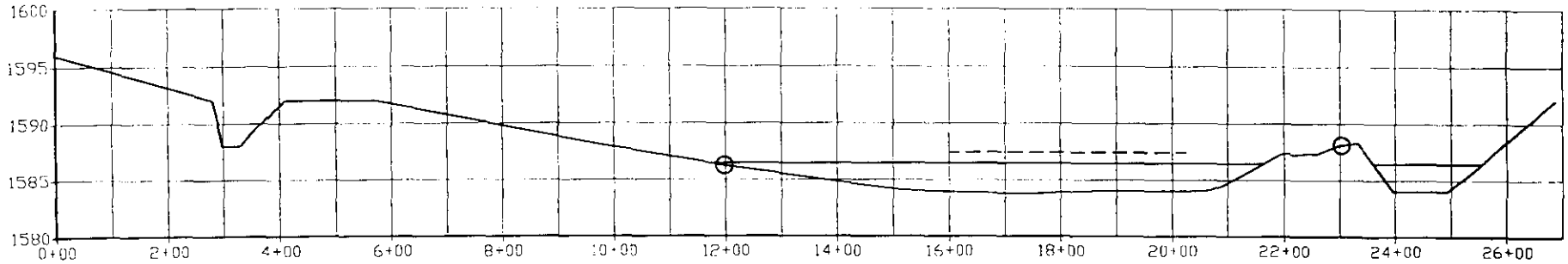
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1574.02 ft



502

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1583.05 ft

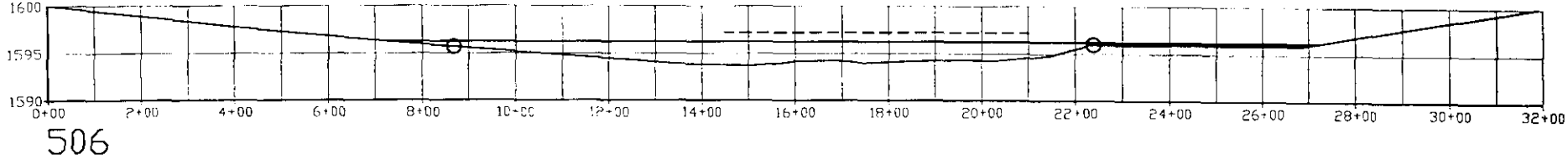
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1582.11 ft



504

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1587.42 ft

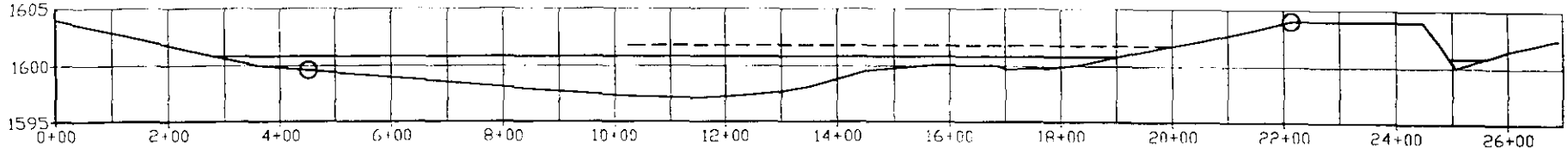
Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1586.47 ft



506

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1597.17 ft

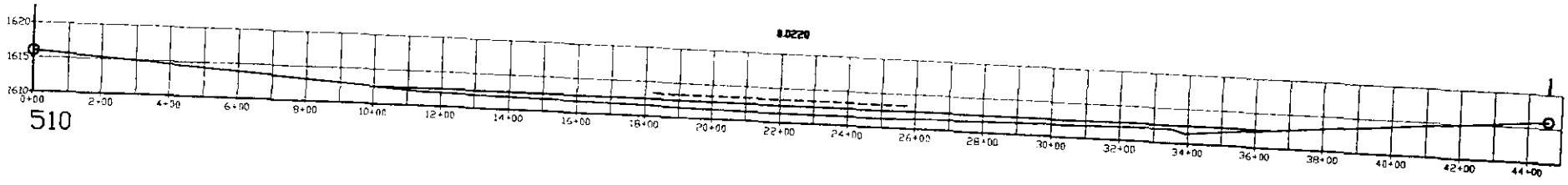
Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1596.23 ft



508

Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1601.79 ft

Profile 3
Flow Discharge = 11500.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1600.84 ft



Profile 2
Flow Discharge = 11500.00 cfs
- - - FLOODWAY WSEL = 1613.36 ft

Profile 3
Flow Discharge = 11500.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1612.53 ft

HYDRAULIC ANALYSES

Profiles

LVDUCK.DAT

2Bb4 CID32003 001

Study Contractor: Nolte & Associates, Inc.

WATER SURFACE PROFILES

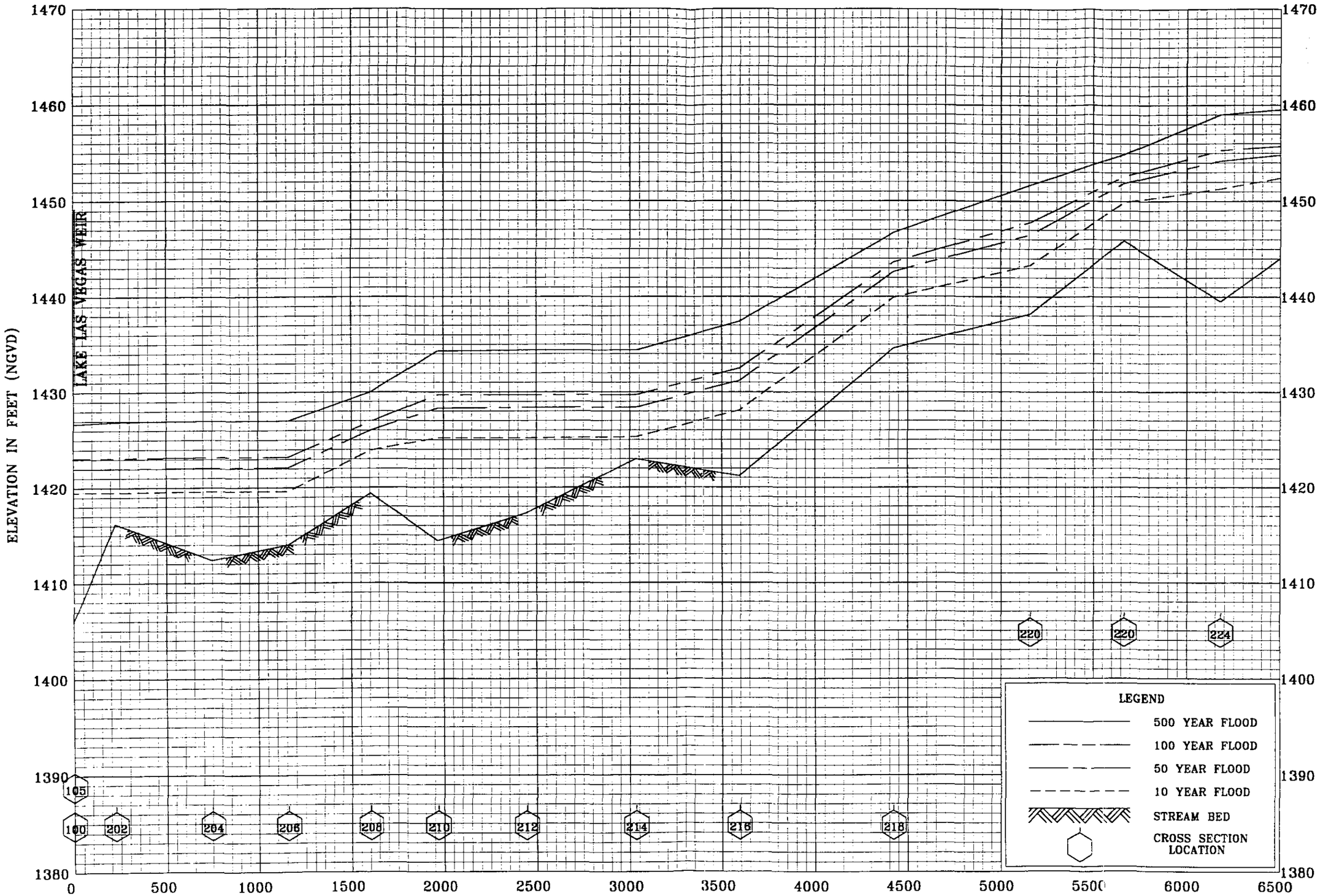
FIS PLOT INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Lake Las Vegas to Duck Creek	2Bb4 CID 32003	002



FLOOD PROFILES

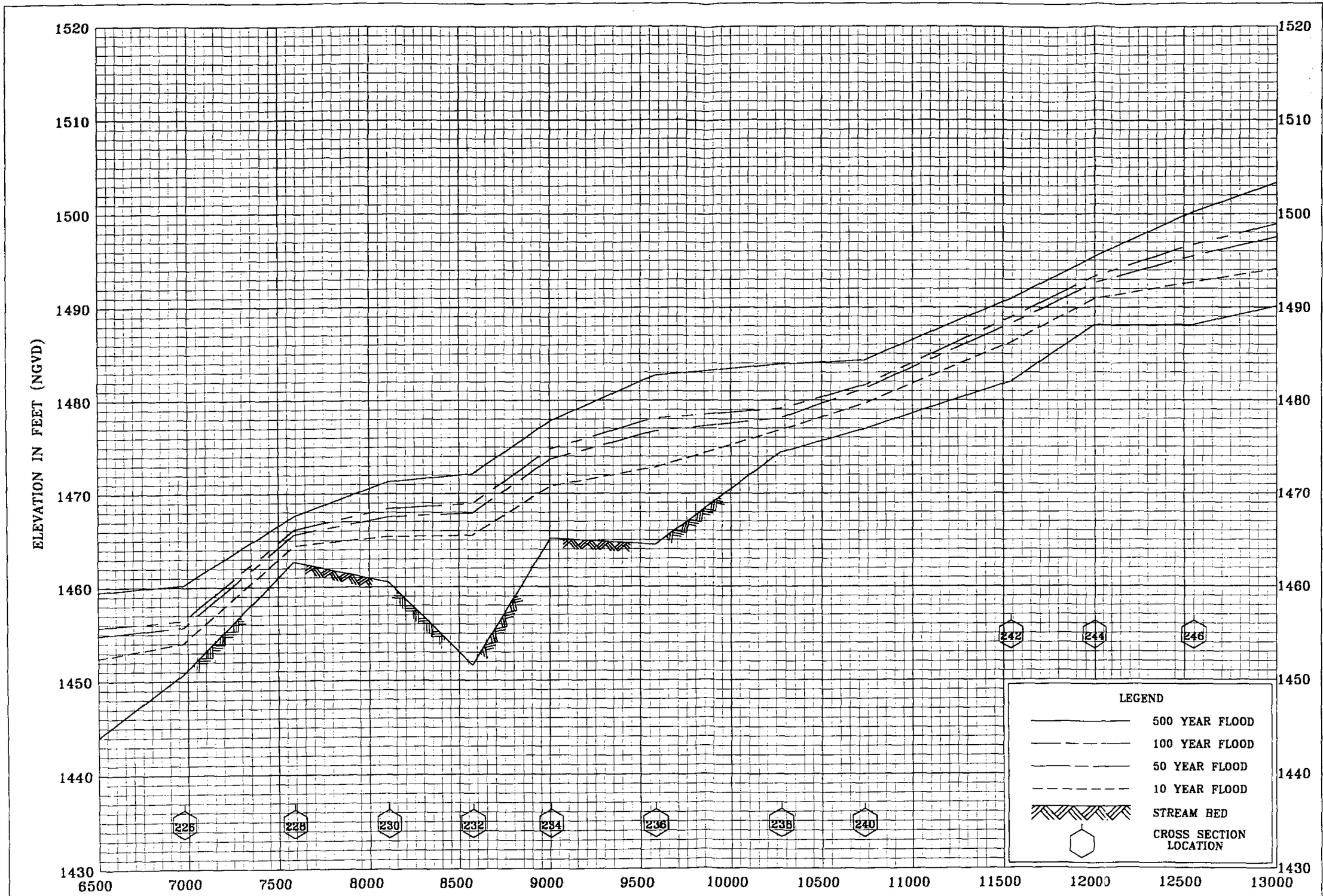
LAS VEGAS WASH - LAKE LAS VEGAS TO DUCK CK.

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

1P



FLOOD PROFILES

LAS VEGAS WASH – LAKE LAS VEGAS TO DUCK CK.

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

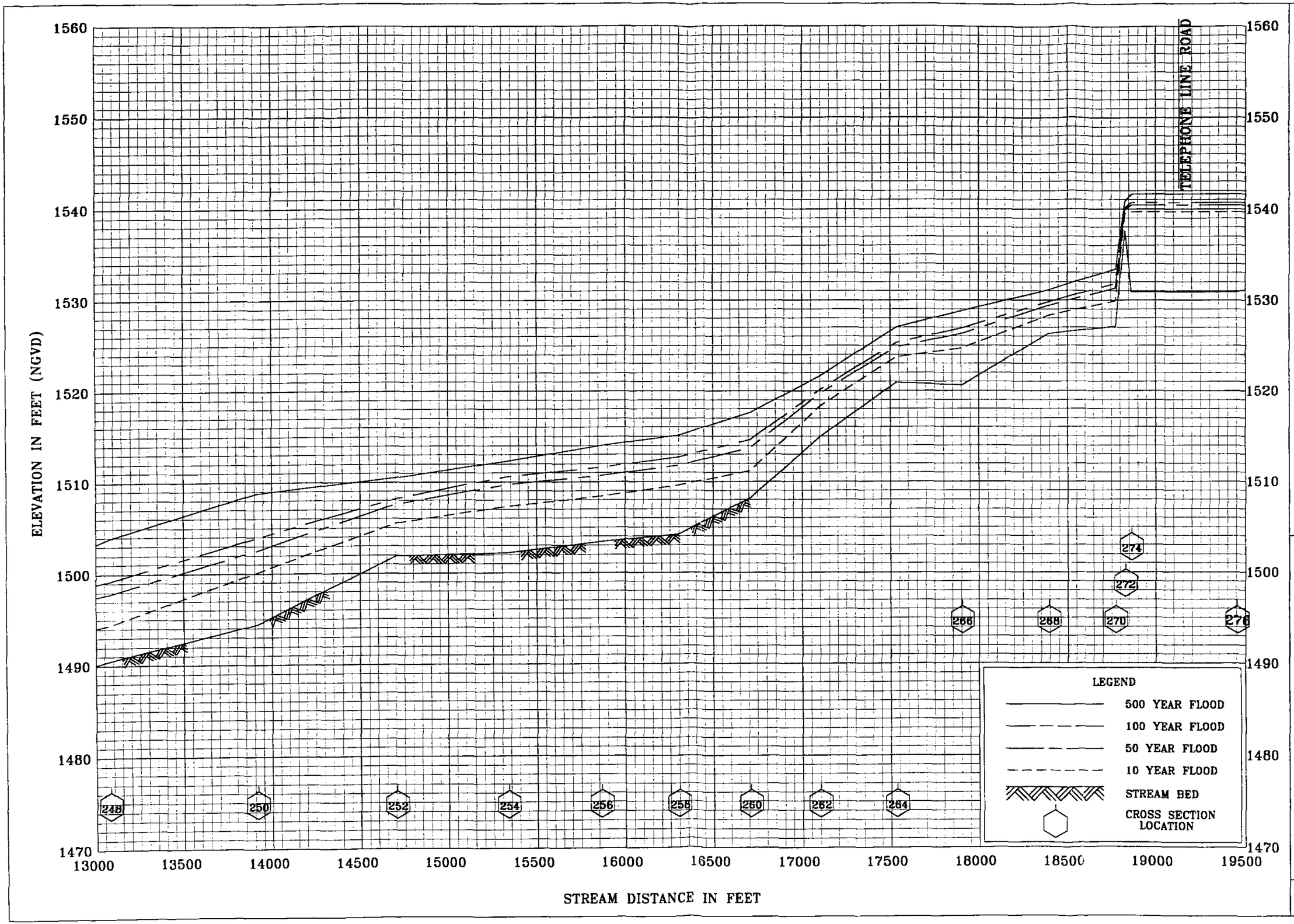
CLARK

2P

HYDRAULIC ANALYSES

HEC-2, Duck Creek to Charleston Blvd.

LV.DAT



FLOOD PROFILES

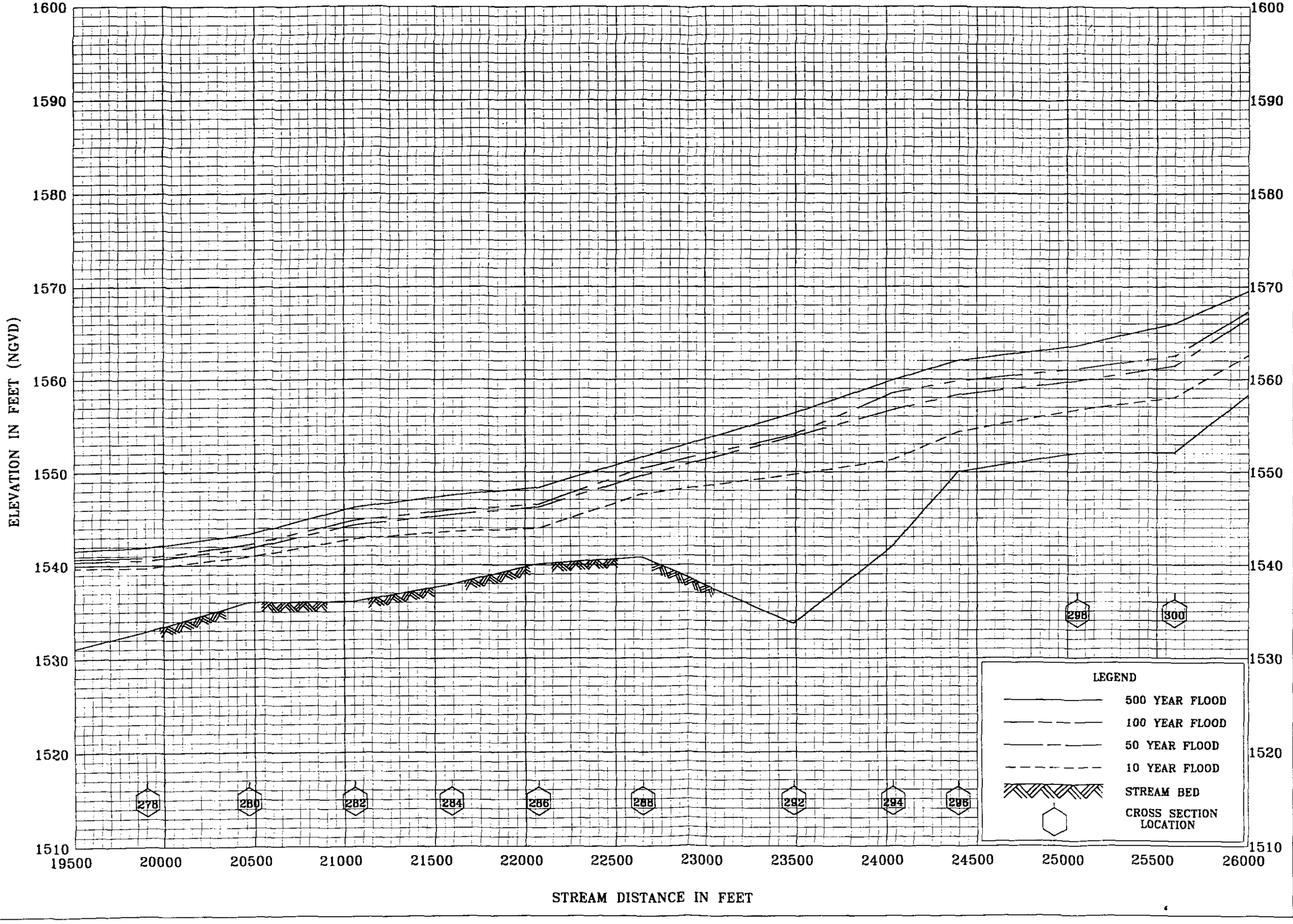
LAS VEGAS WASH – LAKE LAS VEGAS TO DUCK CK.

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

3P



FLOOD PROFILES

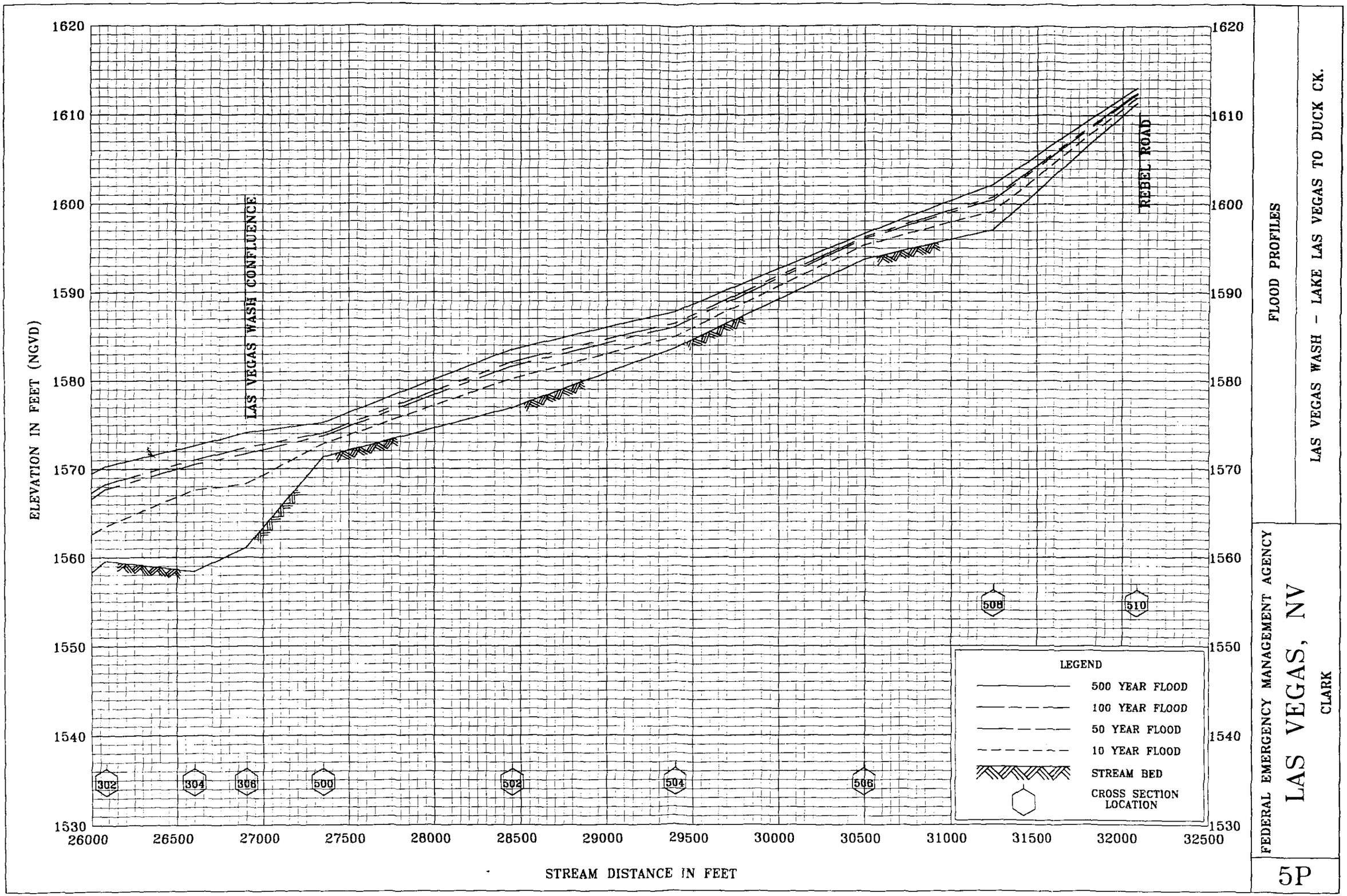
LAS VEGAS WASH - LAKE LAS VEGAS TO DUCK CK.

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

4P



FLOOD PROFILES

LAS VEGAS WASH – LAKE LAS VEGAS TO DUCK CK.

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

5P

Study Contractor: Nolte & Associates, Inc.

SPLIT FLOW ANALYSES INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	*Split flow description U/S of Sahara*	2Ba6 CID32003	Pg. 2
Las Vegas Wash	Normal depth calculations for mapping	2Ba6 CID32003	Pg. 3-4

Split Flow Description

A split flow occurs on the left bank of Las Vegas Wash just upstream of Sahara Avenue. The split is located between cross sections 441 and 442 and is included in the HEC-2 model LV.DAT.

The split is caused by a depression 200 feet wide at an elevation of 1,720 feet on the left bank between a residential development and the Sahara Avenue Bridge. The HEC-2 split flow option computed the split discharge to be 488 cfs. with a flow depth of 0.8 feet. The normal depth control was used for this calculation.

Based on our field reconnaissance, this split flow will travel easterly and discharge into Range Wash just north of its confluence with Las Vegas Wash. The flow is contained in a slight depression and maintains a width from 200 to 300 feet (see sheet C4). Normal depth calculations show that flow depths will range from 0.5 to 1.0 feet, therefore, this area should be mapped as Zone A0 (1-foot depth).

Split Flow - 200' Width
Worksheet for Rectangular Channel

Project Description	
Project File	n:\sd0339\hydraul\spltflow.fm2
Worksheet	Split Flow
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.045	
Channel Slope	0.010000	ft/ft
Bottom Width	200.00	ft
Discharge	488.00	cfs

Results		
Depth	0.84	ft
Flow Area	167.36	ft^2
Wetted Perimeter	201.67	ft
Top Width	200.00	ft
Critical Depth	0.57	ft
Critical Slope	0.035863	ft/ft
Velocity	2.92	ft/s
Velocity Head	0.13	ft
Specific Energy	0.97	ft
Froude Number	0.56	
Flow is subcritical		

Split Flow - 300' Width
Worksheet for Rectangular Channel

Project Description	
Project File	n:\sd0339\hydraul\spltflow.fm2
Worksheet	Split Flow
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.045	
Channel Slope	0.010000	ft/ft
Bottom Width	300.00	ft
Discharge	488.00	cfs

Results		
Depth	0.66	ft
Flow Area	196.51	ft^2
Wetted Perimeter	301.31	ft
Top Width	300.00	ft
Critical Depth	0.43	ft
Critical Slope	0.039097	ft/ft
Velocity	2.48	ft/s
Velocity Head	0.10	ft
Specific Energy	0.75	ft
Froude Number	0.54	
Flow is subcritical.		

Study Contractor: Nolte & Associates, Inc.

HYDRAULIC ANALYSES

BRIDGE ANALYSIS INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Vegas Valley Dr.		Pg. 2 – 4
Las Vegas Wash	Sahara Ave.		Pg. 5 – 7
Las Vegas Wash	Nellis Blvd.		Pg. 8 – 10
Las Vegas Wash	Charleston Blvd.		Pg. 11 – 13

JOB NUMBER: 50 0339 RE DATE: 11-11-96 OBSERVED BY: SPL/JUW

FIELD OBSERVATIONS FOR Las Vegas Wash **CREEK AT** Vegas Valley Dr

Type of Bridge*

	pipe
	box(es)
✓	bridge
	arch
	other

* sketch on back

DIMENSIONS

diameter	
height	
width at top	
width at bottom	
material	

flow length	88.7'
skew angle	Yes
true opening? (Y) n	
s/s left (h:v) **	(in bridge)
s/s right (h:v) **	(in bridge)

Bridge I.D.	
Date	
Other	

WINGWALL DATA

	Type	Angle	Length	S/S end	S/S face
Upstream Left **					
Upstream Right **					
Downstream Left **					
Downstream Right **					

PIER DATA*

Type	Wall piers
No.	
Rows	9
Width	6"
Nose	Pointed

* sketch on back

ENTRANCE ROUNDING

Top	
Sides	

ENTRANCE BEVEL

Top	✓
Sides	✓
Chamfered Corners	✓

RAILING DATA

Type	Metal tube
Rail Width	3"
Height	3.2'
Length	
Spacing	

SCOUR PROTECT

Type	
Length	
Location	

HEIGHT DATA (feet)

Invert to L.C.	10'
Invert to T.R.	
L.C. to T.R.	
L.C. to H.W.	

Height of Roadway Fill

	Left **	Right **
upstream		
downstream		

MANNING'S 'n' VALUES

	L.O.B. **	R.O.B. **	CHANNEL
Downstream	.025	.025	.03
End D/S ~~Wingwalls~~ Conc. Cut	.015	.015	.015
At bridge	.015	.015	.015
End U/S Wingwalls			
Upstream	.015	.015	.015

FIELD PHOTOS Roll No. 2

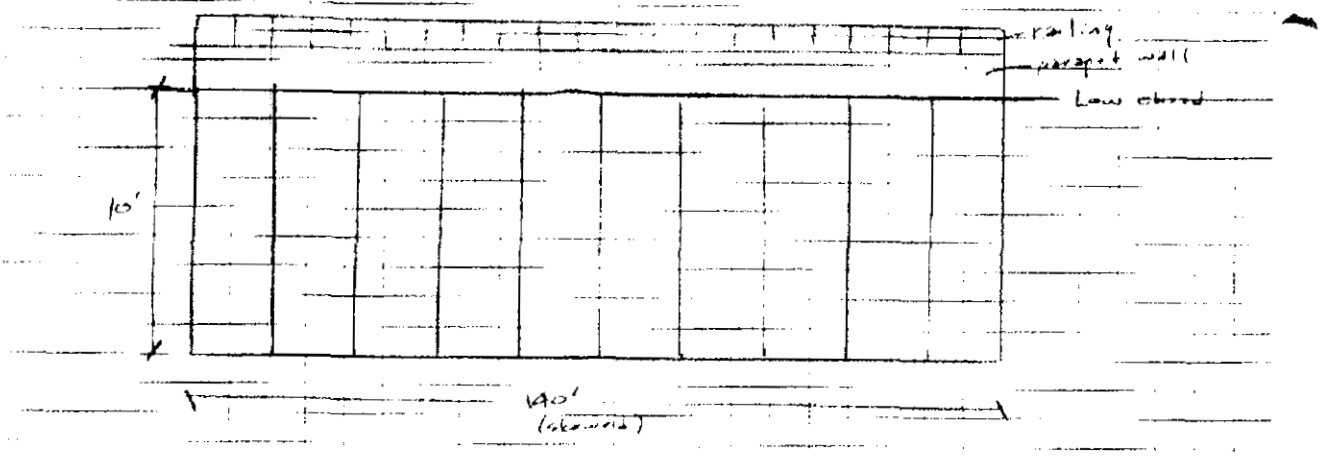
	Photo No.
Looking D/S	16
D/S Face	17
Looking U/S	14
U/S Face	15
Video?	Y (N)

NOTES ① Bridge skew length from plans

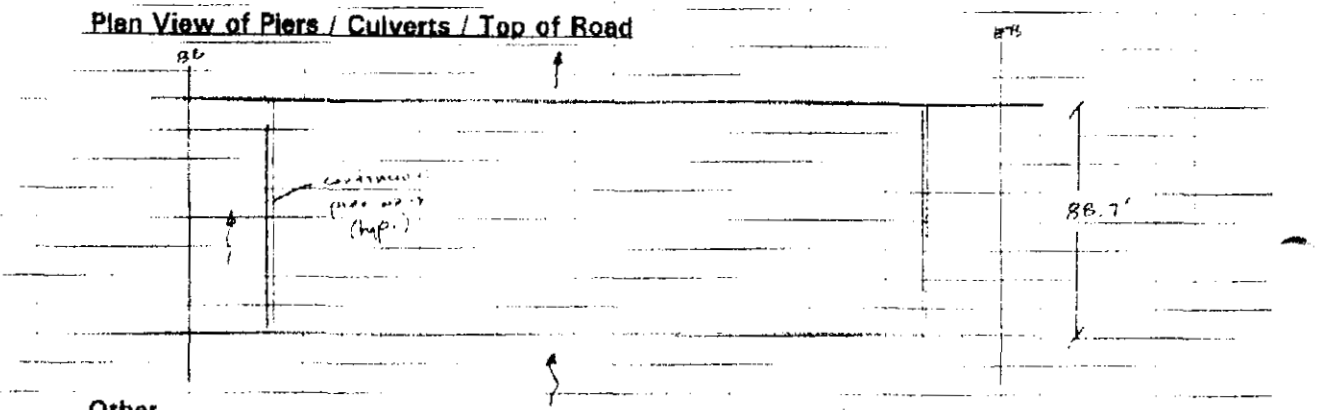
** NOTE: All references to "left" and "right" are oriented looking downstream.

FIELD SKETCHES

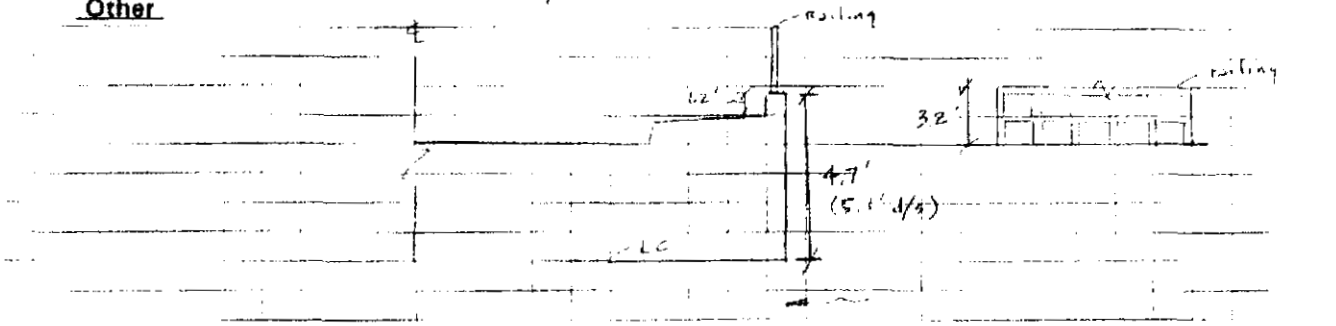
Elevation View of Upstream Face



Plan View of Piers / Culverts / Top of Road



Other



NOTES

Photo 9 Vegas Valley Dr. Looking upstream

Photo 10 Vegas Valley Dr. Looking upstream at bridge face

Photo 11 Vegas Valley Dr. Looking at downstream bridge face

Photo 12 Vegas Valley Dr. Looking downstream

Study Contractor: Nolte & Associates, Inc.

HYDRAULIC ANALYSES

BRIDGE ANALYSIS INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Vegas Valley Dr.		Pg. 2 – 4
Las Vegas Wash	Sahara Ave.		Pg. 5 – 7
Las Vegas Wash	Nellis Blvd.		Pg. 8 – 10
Las Vegas Wash	Charleston Blvd.		Pg. 11 – 13

JOB NUMBER: 96 0573 00 DATE: 11-11-96 OBSERVED BY: SPL/AW

FIELD OBSERVATIONS FOR Las Vegas Wash CREEK AT Sahara Ave

Type of Bridge*

	pipe
	box(es)
✓	bridge
	arch
	other

* sketch on back

DIMENSIONS

diameter	
height	
width at top	
width at bottom	
material	

flow length	110'
skew angle	Yes
true opening? y n	
s/s left (h:v) **	(in bridge)
s/s right (h:v) **	(in bridge)

Bridge I.D.	
Date	
Other	

WINGWALL DATA

	Type	Angle	Length	S/S end	S/S face
Upstream Left **					
Upstream Right **					
Downstream Left **					
Downstream Right **					

PIER DATA*

Type	Cylinder
No.	7
Rows	2
Width	1.8'
Nose	

* sketch on back

ENTRANCE ROUNDING

Top	
Sides	

ENTRANCE BEVEL

Top	
Sides	
Chamfered Corners	

RAILING DATA

Type	see sketch
Rail Width	
Height	
Length	
Spacing	

SCOUR PROTECT

Type	
Length	
Location	

HEIGHT DATA (feet)

Invert to L.C.	see sketch (various)
Invert to T.R.	
L.C. to T.R.	
L.C. to H.W.	

Height of Roadway Fill

	Left **	Right **
upstream		
downstream		

MANNING'S 'n' VALUES

	L.O.B. **	R.O.B. **	CHANNEL
Downstream	.025	.025	.025
End D/S Wingwalls			
At bridge	.015	.015	.015
End U/S Wingwalls			
Upstream	.025	.025	.025

FIELD PHOTOS Roll No. 1

	Photo No
Looking D/S	17
D/S Face	18
Looking U/S	15
U/S Face	16
Video?	Y / (N)

Roll No 2 Photo No 1-4
U/S Face looking east

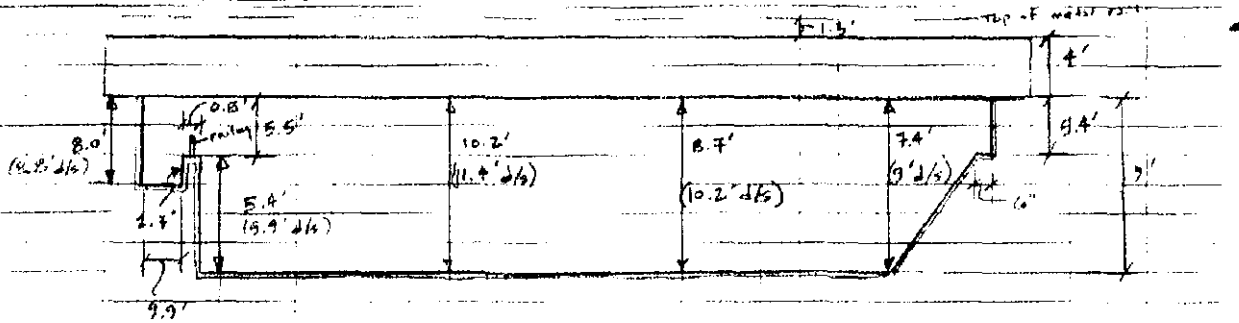
NOTES

1. Low flow ditch u/s & d/s of bridge is paved.
2. Bridge is arched in two directions.
3. Check bridge skew on plans.
4. Roll No. 2 Photo #s 5-8 — where Ave xing 2 Ranges Wash
   #5 looking u/s #7 looking d/s
   #6 - u/s face #8 - d/s face

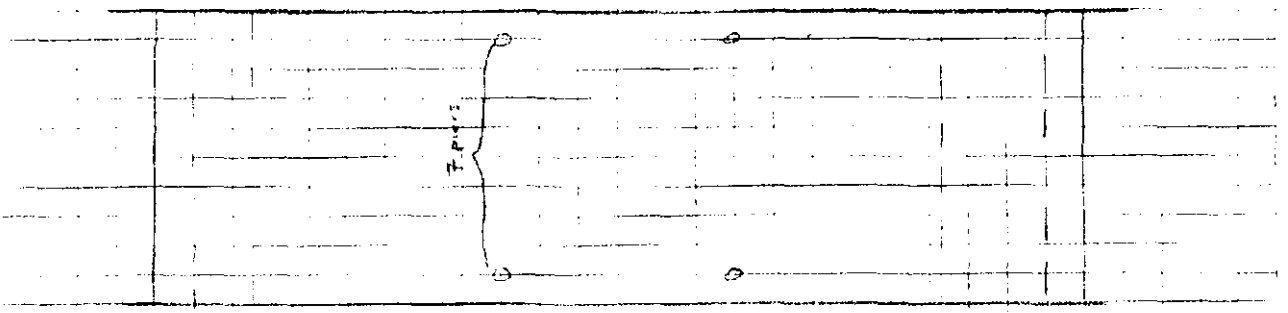
** NOTE: All references to "left" and "right" are oriented looking downstream.

FIELD SKETCHES

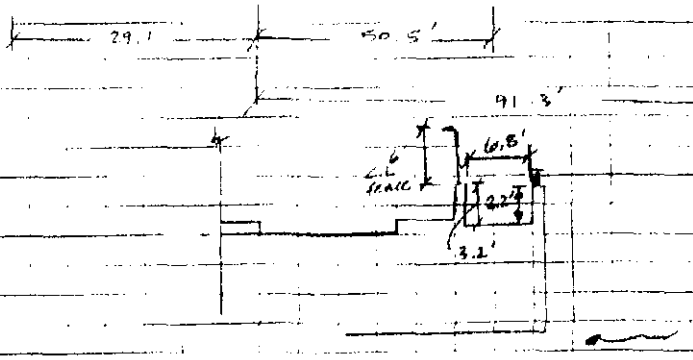
Elevation View of Upstream Face



Plan View of Piers / Culverts / Top of Road



Other



NOTES (1) Channel bottom @ bridge lower than downstream channel bottom (expanding low flow ditch)

(2) Low point @ left overbank on upstream face. Probably a flow breakout to adjt.

(3) Have tops extend to parallel streets on upstream reach — extend x-sections to streets

JOB NUMBER: 5B0539 E0 DATE: 11-11-96 OBSERVED BY: JHW/SPL

FIELD OBSERVATIONS FOR Las Vegas Wash CREEK AT Nellis Blvd

Type of Bridge*
- ____ pipe
- ____ box(es)
- ✓ bridge
- ____ arch
- ____ other

* sketch on back

DIMENSIONS

diameter	
height	
width at top	
width at bottom	
material	

flow length	109'
skew angle	Yes
true opening?	(y) n
s/s left (h:v) **	(in bridge)
s/s right (h:v) **	(in bridge)

Bridge I.D.
Date
Other

WINGWALL DATA

	Type	Angle	Length	S/S end	S/S face
Upstream Left **					
Upstream Right **					
Downstream Left **					
Downstream Right **					

PIER DATA*

Type	Cylinder
No.	12
Rows	4
Width	18"
Nose	

* sketch on back

ENTRANCE ROUNDING
- Top
- Sides

ENTRANCE BEVEL
- Top ✓
- Sides ✓
- Chamfered Corners ✓

RAILING DATA
- Type
- Rail Width
- Height
- Length
- Spacing

SCOUR PROTECT
- Type
- Length
- Location

HEIGHT DATA (feet)
- Invert to L.C.
- Invert to T.R. } minimum available
- L.C. to T.R.
- L.C. to H.W.

Height of Roadway Fill

	Left **	Right **
upstream		
downstream		

MANNING'S 'n' VALUES

	L.O.B. **	R.O.B. **	CHANNEL
Downstream	.025	.025	.03
End D/S Wingwalls			
At bridge	.015	.015	.025
End U/S Wingwalls			
Upstream	.025	.025	.025

FIELD PHOTOS Roll No. 1

	Photo No.
Looking D/S	13
D/S Face	14
Looking U/S	11
U/S Face	12
Video?	Y (N)

NOTES
(1) estimate skew angle from aerial photos
(2) Bridge on horizontal curve
(3) Have surveyor pick-up u.c. and invert elevations @ each wall end + section

** NOTE: All references to "left" and "right" are oriented looking downstream.

JOB NUMBER: SD0339 EF DATE: 11-11-96 OBSERVED BY: JHW/SPL

FIELD OBSERVATIONS FOR Las Vegas Wash CREEK AT Nellis Blvd

Type of Bridge*
- ____ pipe
- ____ box(es)
- ✓ bridge
- ____ arch
- ____ other

* sketch on back

DIMENSIONS

diameter	
height	
width at top	
width at bottom	
material	

flow length	109'
skew angle	Yes
true opening?	(Y) n
s/s left (h:v) **	(in bridge)
s/s right (h:v) **	(in bridge)

Bridge I.D.	
Date	
Other	

WINGWALL DATA

	Type	Angle	Length	S/S end	S/S face
Upstream Left **					
Upstream Right **					
Downstream Left **					
Downstream Right **					

PIER DATA*

Type	Cylinder
No.	12
Rows	4
Width	18"
Nose	

* sketch on back

ENTRANCE ROUNDING

Top	
Sides	

ENTRANCE BEVEL

Top	✓
Sides	✓
Chamfered Corners	✓

RAILING DATA

Type	
Rail Width	
Height	
Length	
Spacing	

SCOUR PROTECT

Type	
Length	
Location	

HEIGHT DATA (feet)

Invert to L.C.	from as-builts
Invert to T.R.	from as-builts
L.C. to T.R.	from as-builts
L.C. to H.W.	from as-builts

Height of Roadway Fill

	Left **	Right **
upstream		
downstream		

MANNING'S 'n' VALUES

	L.O.B. **	R.O.B. **	CHANNEL
Downstream	.025	.025	.03
End D/S Wingwalls			
At bridge	.015	.015	.025
End U/S Wingwalls			
Upstream	.025	.025	.025

FIELD PHOTOS Roll No. 1

	Photo No.
Looking D/S	13
D/S Face	14
Looking U/S	11
U/S Face	12
Video?	Y (N)

NOTES (1) estimate skew angle from aerial photos
(2) Bridge on horizontal curve
(3) Have surveyor pick info. L.C. and invert elevations @ each wingwall and abutment

** NOTE: All references to "left" and "right" are oriented looking downstream.

JOB NUMBER: 450539 ea DATE: 11-11-96 OBSERVED BY: JHW/SPL

FIELD OBSERVATIONS FOR Las Vegas Wash **CREEK AT** Nellis Blvd

Type of Bridge*

_____ pipe
_____ box(es)
✓ bridge
_____ arch
_____ other

* sketch on back

DIMENSIONS

diameter	
height	
width at top	
width at bottom	
material	

flow length	109'
skew angle	Yes
true opening?	(Y) n
s/s left (h:v) **	(in bridge)
s/s right (h:v) **	(in bridge)

Bridge I.D.	
Date	
Other	

WINGWALL DATA

	Type	Angle	Length	S/S end	S/S face
Upstream Left **					
Upstream Right **					
Downstream Left **					
Downstream Right **					

PIER DATA*

Type	Cylinder
No.	12
Rows	4
Width	18"
Nose	

* sketch on back

ENTRANCE ROUNDING

Top	
Sides	

ENTRANCE BEVEL

Top	✓
Sides	✓
Chamfered Corners	✓

RAILING DATA

Type	
Rail Width	
Height	
Length	
Spacing	

SCOUR PROTECT

Type	
Length	
Location	

HEIGHT DATA (feet)

Invert to L.C.	from as-built
Invert to T.R.	
L.C. to T.R.	
L.C. to H.W.	

Height of Roadway Fill

	Left **	Right **
upstream		
downstream		

MANNING'S 'n' VALUES

	L.O.B. **	R.O.B. **	CHANNEL
Downstream	.025	.025	.03
End D/S Wingwalls			
At bridge	.015	.015	.025
End U/S Wingwalls			
Upstream	.025	.025	.025

FIELD PHOTOS Roll No. 1

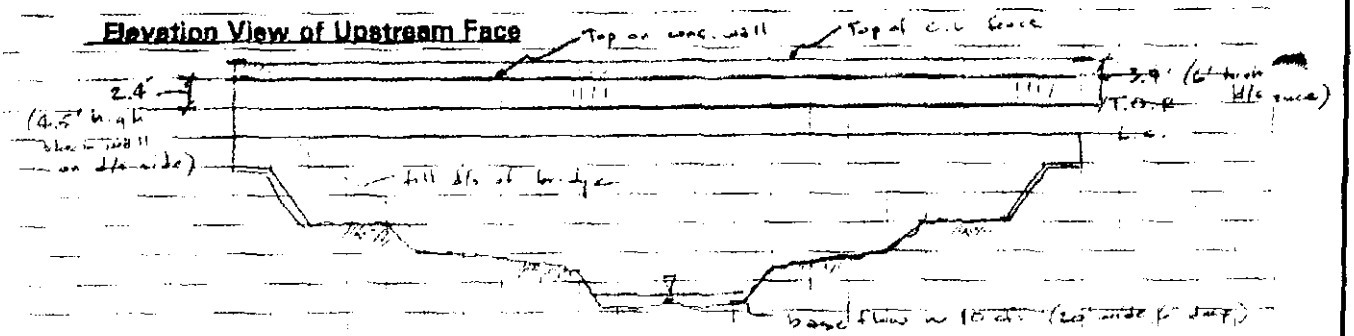
	Photo No.
Looking D/S	13
D/S Face	14
Looking U/S	11
U/S Face	12
Video?	Y (N)

NOTES (1) estimate skew angle from aerial photos
(2) Bridge on horizontal curve
(3) Image coverage: pick up L.C. and invert elevations @ each end elevations

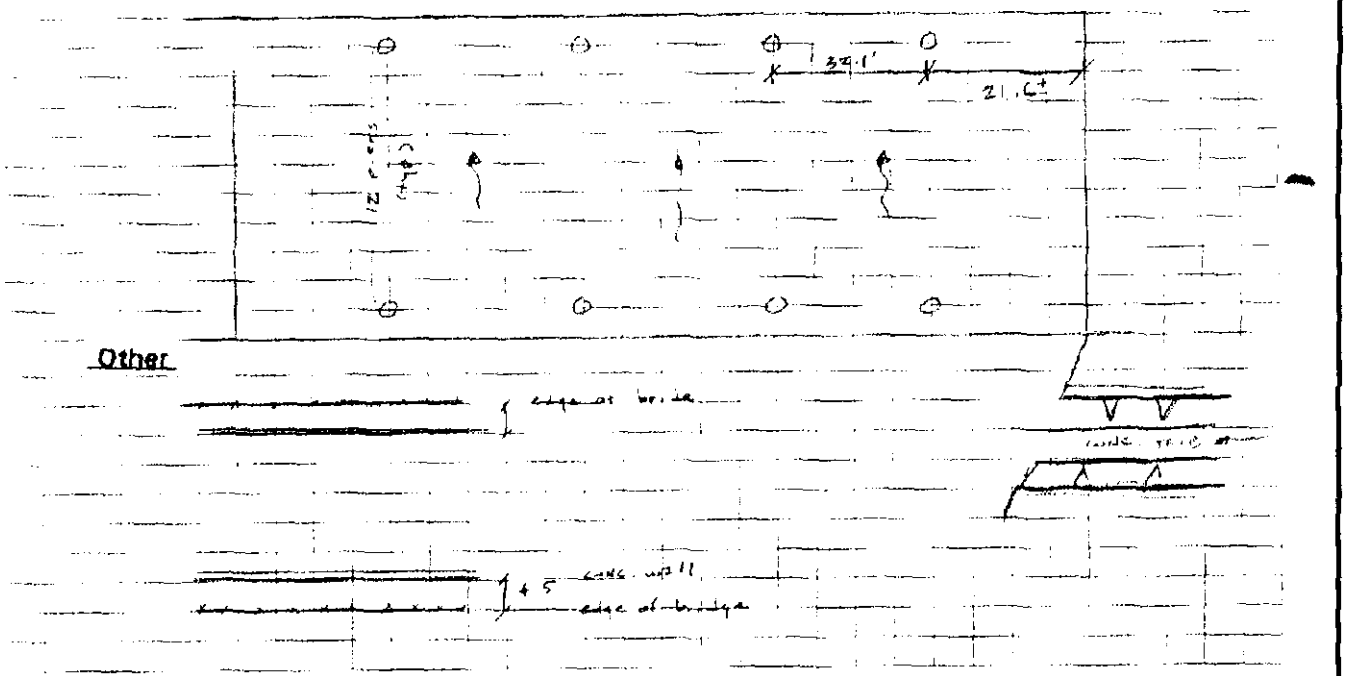
** NOTE: All references to "left" and "right" are oriented looking downstream.

FIELD SKETCHES

Elevation View of Upstream Face



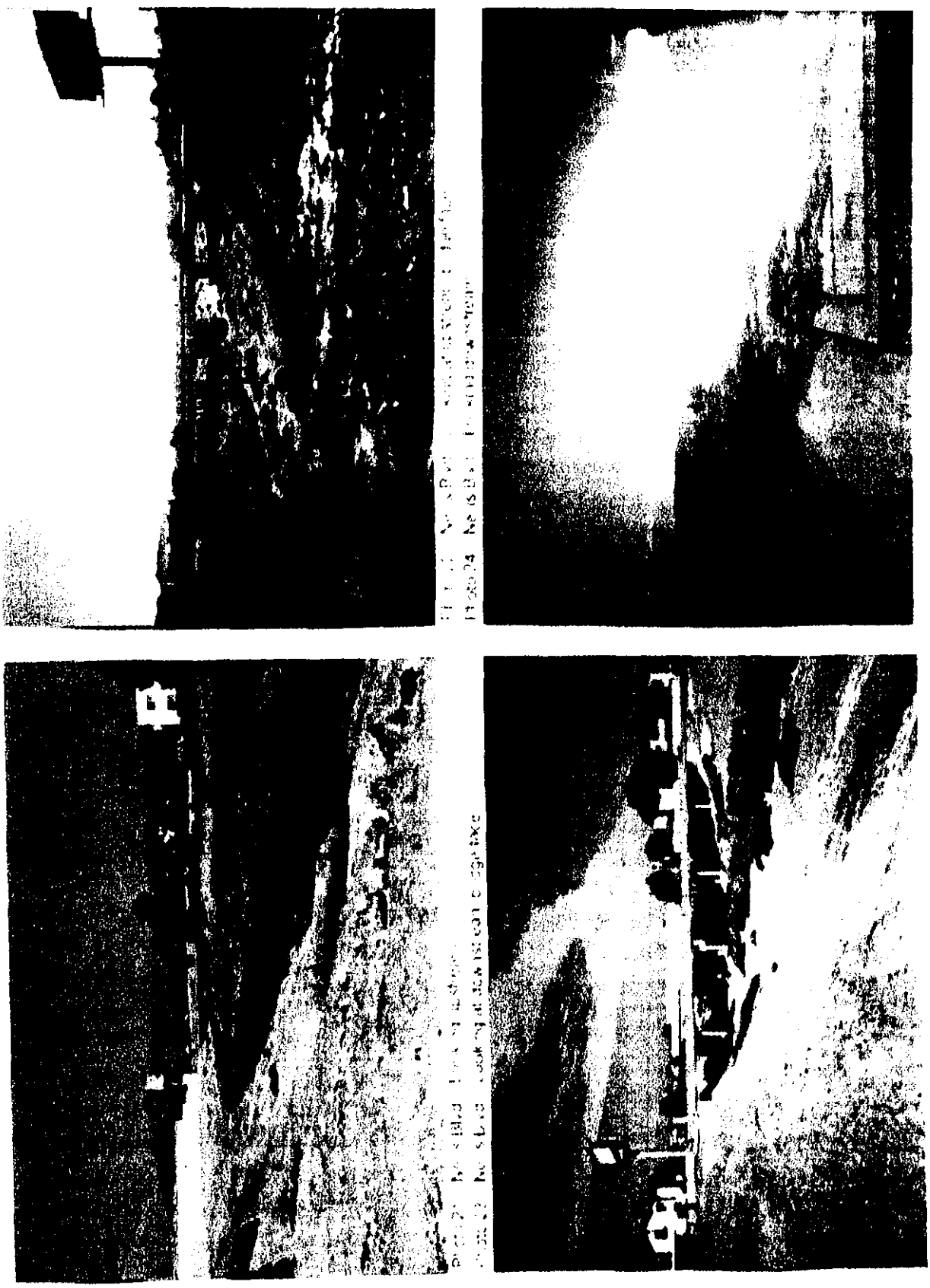
Plan View of Piers / Culverts / Top of Road



Other

NOTES (1) Concrete bank protection extends ~ 30' downstream of bridge

(2) Some debris on culverts to reduce their cleanliness



JOB NUMBER: SD0339 - RC DATE: 11-16-96 OBSERVED BY: SRL/JHW

FIELD OBSERVATIONS FOR L-V WASH CREEK AT CHARLESTON BLVD

Type of Bridge*		DIMENSIONS			
	pipe	diameter	flow length	10 ft	Bridge I.D.
	box(es)	height	skew angle	none	Date
✓	bridge	width at top	145'	true opening? (Y) N	Other
	arch	width at bottom		s/s left (h:v) **	(in bridge)
	other	material		s/s right (h:v) **	(in bridge)

* sketch on back

WINGWALL DATA	Type	Angle	Length	S/S end	S/S face
Upstream Left **					
Upstream Right **					
Downstream Left **					
Downstream Right **					

PIER DATA*

Type	cylinder
No.	10
Rows	4
Width	18" (4.75 downstream)
Nose	

* sketch on back

ENTRANCE ROUNDING

Top	
Sides	

ENTRANCE BEVEL

Top	✓
Sides	✓
Chamfered Corners	✓

RAILING DATA

Type	chain link fence on 1
Rail Width	—
Height	see back
Length	
Spacing	

SCOUR PROTECT

Type	
Length	
Location	

HEIGHT DATA (feet)

Invert to L.C.	
Invert to T.R.	
L.C. to T.R.	1'-5"
L.C. to H.W.	

Height of Roadway Fill

	Left **	Right **
upstream		
downstream		

MANNING'S 'n' VALUES

	L.O.B. **	R.O.B. **	CHANNEL
Downstream	.025	.025	.025
End D/S Wingwalls			
At bridge	.015	.015	.025
End U/S Wingwalls			
Upstream	.015	.015	.025

FIELD PHOTOS Roll No. 1

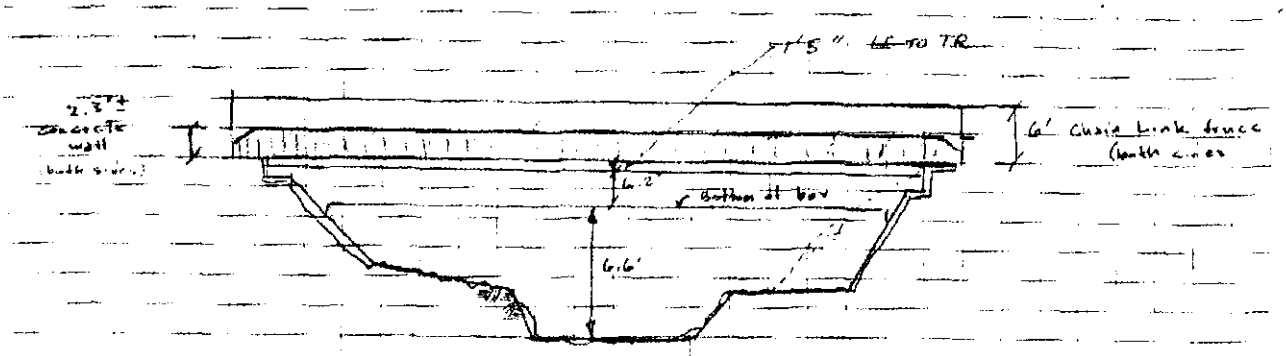
	Photo No.
Looking D/S	7,9,10
D/S Face	6,8
Looking U/S	4
U/S Face	5
Video?	Y / (N)

NOTES ① Low spot on right o.b. roll way to erect downstream retaining wall u/s apts
② concrete beam stubs down under bridge @ medium location
③ earthen berm on right o.b. downstream to encroach into channel
(see sketch on back)
Photo #9 looking u/s from under R.O.B.

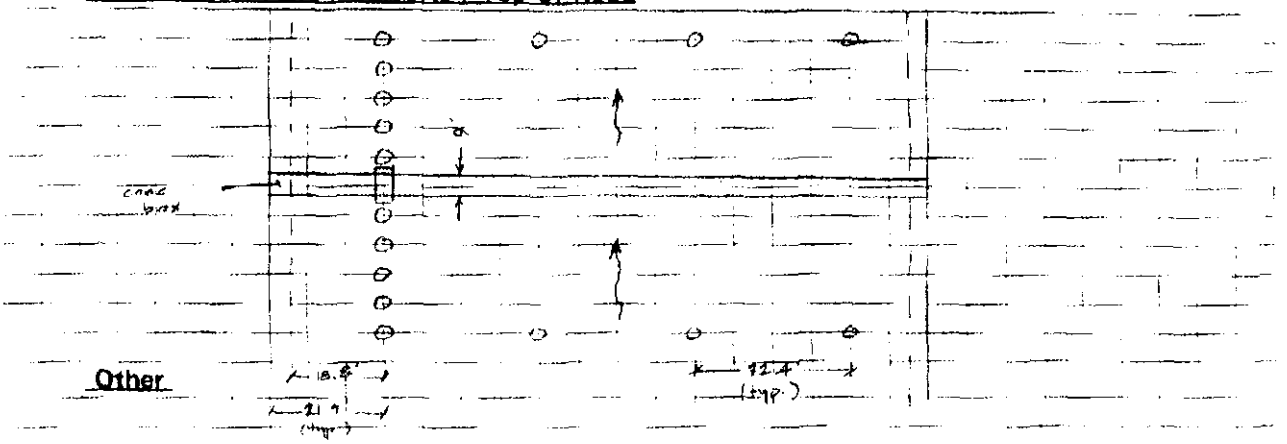
** NOTE: All references to "left" and "right" are oriented looking downstream.

FIELD SKETCHES

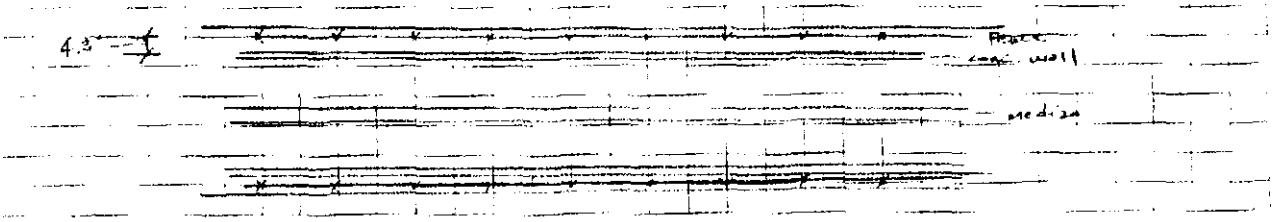
Elevation View of Upstream Face



Plan View of Piers / Culverts / Top of Road



Other



NOTES (1) Fair amount of debris hung up on piles.

(2) ACOE BM @ Median

Photo 25 Charleston Blvd Looking upstream

Photo 26 Charleston Blvd Looking at upstream bridge face

Photo 27 Charleston Blvd Looking at downstream bridge face

Photo 28 Charleston Blvd Looking downstream

2Ba2 CID32003 001

Study Contractor: Nolte & Associates, Inc.

STARTING WATER SURFACE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Starting Water Surface El. Description		Pg. 2

The HEC-2 file LV.DAT from Duck Creek to Charleston Blvd. was started using the know water surface elevations from the HEC-2 file LVDUCK.DAT at cross section 306 .

Profile	Starting Water Surface Elevation (feet)
10-year	1568.33
50-year	1571.71
100-year	1572.44
500-year	1574.14

```
1*****************************************
 *  HEC-2 WATER SURFACE PROFILES          *
 *                                        *
 *  Version   4.6.0;  February 1991       *
 *                                        *
 *  RUN DATE    22JAN99    TIME   15:19:49 *
 *****************************************
```


```
 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  HYDROLOGIC ENGINEERING CENTER      *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616-4687       *
 *         (916) 756-1104              *
 ***************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X
XXXXXXX  XXXX      X           XXXXX   XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX   XXXXX             XXXXXXX

1
    22JAN99       15:19:49                                                    PAGE    1


                                                        THIS RUN EXECUTED    22JAN99    15:19:49

 ************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
 ************************************


SPLIT FLOW BEING PERFORMED


SF


JC
J5      0              50       0      100

TNSplit at Sahara Ave
NS      2     441      442      422   0.048    0.01
NG      0    1720      200     1720

1
    22JAN99       15:19:49                                                    PAGE    2


T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Duck Creek to Charleston Blvd.
T2      Nolte and Associates, Jan 1998
T3      Boundary condition: WSEL at XS306 from LVDUCK.DAT

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                2                                                         2500   1568.33

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1                 -1                                              -6

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150

J5  LPRNT     NUMSEC                      ********REQUESTED SECTION NUMBERS********

    -10       -10

NC    0.045     0.045     0.045       0.1       0.3
X1      306        32    4977.6    5446.2
GR     1576    3953.6    1572.9    4001.1    1571.8      4056    1570.8    4140.1    1570.5    4211.8
GR   1571.3    4260.6    1570.2    4318.1    1569.7    4387.1    1569.7    4444.3    1570.8    4516.5
GR     1571    4574.1    1571.3    4825.5      1571    4889.2   1571.26    4977.6    1561.1    4989.4
GR   1561.1      5000    1561.1    5008.1    1573.2    5446.2    1573.5    5486.4    1573.5    5580.9
GR     1574    5663.3    1574.6    5731.6    1574.6    5839.5    1575.1    5896.2      1577    5932.6
GR   1577.3    5991.8      1577    6065.5    1577.3    6152.9    1578.1    6262.6    1577.5    6377.5
GR   1577.3    6462.8    1578.1    6557.4

NC    0.045     0.045     0.035
X1      308        38     102.5     399.7       448       290       631
GR   1567.7         0    1586.7        27    1580.7      63.1    1576.4     102.5    1574.5     177.9
GR     1571     240.2    1571.5     305.9    1575.3     360.3    1575.8     399.7    1574.8     479.2
GR   1575.6     557.5    1575.8     632.8   1575.99       536    1573.7     957.7    1572.6    1004.8
GR   1571.8    1115.5    1574.5    1672.4    1574.2    1783.9      1575    1857.1    1574.8    1921.4
GR   1575.3    1983.4    1576.6    2011.7    1578.3    2048.5    1578.6    2102.3    1578.3    2167.3
GR   1578.3    2224.4    1579.6    2271.8    1579.6    2323.2    1579.1    2370.7    1579.1    2396.6
GR   1579.1    2466.9    1579.1    2546.9    1578.6    2593.9    1581.5    2622.1    1581.5    2650.2
```

Study Contractor: Nolte & Associates, Inc.

HYDRAULIC MODELS INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	*DESCRIPTION*	*FILE NAME*	*ID NO.*
Las Vegas Wash	Duck Creek to Charleston	2Ba12 CID 32003	002

GR	1579.9	2673.1	1581	2683.8	1582.1	2692.6				
X1	310	36	318	378	352	180	490			
GR	1587.7	0	1587.7	57.9	1587.7	105.3	1580.2	144.6	1574.5	200.2
GR	1573.2	249.8	1575.3	303	1577.23	318	1572.23	325	1572.2	370
GR	1577.2	378	1575.8	422.2	1577.7	559.8	1576.4	634.7	1575.8	705.1
GR	1576.1	789.7	1575	1836.5	1575	1913.7	1575	1990.4	1575	2097.4
GR	1575.3	2128.7	1577.7	2158.8	1578.8	2211.9	1579.1	2272.6	1579.9	2329.9
GR	1581.5	2395.7	1582.1	2467.1	1582.3	2520.5	1582.3	2551	1581	2571.4
GR	1579.1	2604.5	1579.1	2621.8	1579.6	2654.6	1581	2694.7	1582.6	2702.4
GR	1582.9	2727.7								

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X1	312	60	4923.7	5029.5	490	220	450			
X3	10									
GR	1583.5	4696.9	1587.2	4747.3	1587.8	4764.3	1585.6	4794	1581	4809.4
GR	1577.8	4838.5	1576.7	4876.7	1577.3	4923.7	1576.4	4950.4	1572.1	4985.1
GR	1571.8	5000	1572.1	5011.3	1577.8	5029.5	1577	5078.9	1577	5128.4
GR	1578.3	5150.2	1578.6	5197	1578.6	5261.1	1578	5291.7	1576.1	5328.6
GR	1577.5	5392.4	1578.1	5445	1578.6	5486.5	1578.6	5527.5	1576.9	5571.4
GR	1579.4	5645.8	1578.3	5736	1578.1	5794.8	1577	5891.8	1574.8	5896.9
GR	1574.6	5928.6	1574.3	5973.8	1571.8	6031	1565.1	6058.3	1565.1	6073.9
GR	1574.8	6429	1575.4	6502.6	1575.9	6598.2	1577.5	6645.1	1579.4	6727.1
GR	1577.3	6752.1	1579.4	6777.8	1580	6834.7	1580	6895.1	1581	6955.2
GR	1580.2	6993.5	1581.3	7047.9	1583.7	7088.1	1583.8	7098.2	1584	7129.8
GR	1582.7	7151.6	1581.3	7177.3	1580.9	7232.1	1580	7255.9	1579.9	7264
GR	1580.2	7286.8	1581.6	7316.6	1582.7	7375.4	1584.3	7389	1585.6	7453.2
X1	314	66	4843.5	5114.6	390	255	354			
GR	1587.7	4643.7	1584.2	4662.6	1583.2	4686.7	1582.4	4704.9	1581.2	4745.3
GR	1581.5	4796.8	1581	4843.5	1573.7	4993.5	1573.7	5000	1573.7	5004.3
GR	1580.5	5019.8	1581.3	5062.1	1581.8	5090.4	1583.2	5114.6	1583.2	5138.3
GR	1583.2	5162.3	1581.8	5187.6	1579.7	5215.8	1579.6	5241.4	1578.6	5275.5
GR	1579.4	5302.6	1578.6	5332.6	1578.9	5389	1580.5	5427.1	1581.6	5462.9
GR	1582.1	5505.4	1581.8	5556.5	1581.6	5599.6	1580.2	5624.8	1580.5	5655.1
GR	1581	5692.6	1580.8	5731.5	1579.7	5766.5	1578.3	5827.1	1577.8	6598.5
GR	1578.6	6627.8	1580.5	6661.5	1582.1	6681.3	1583.5	6701.1	1582.4	6721
GR	1581.2	6738.7	1581.2	6773.8	1580.1	6792.2	1580.1	6804.1	1580.8	6813.6
GR	1580.1	6836	1581.6	6873.3	1582.1	6930.1	1581.8	6958.3	1583.2	6989.2
GR	1583.2	7043.4	1584.2	7086.1	1586.1	7110.7	1587.8	7124.3	1587.4	7133.2
GR	1581.6	7158.9	1581.8	7195.3	1581.2	7208.2	1580.9	7240.8	1581.6	7266.4
GR	1583.5	7310.9	1584.5	7370.3	1584.5	7418.3	1584.2	7435.2	1585.9	7472.5
GR	1586.4	7530.2								
X1	316	33	4666.3	5401.8	400	560	550			
GR	1585	4666.3	1584.2	4705.3	1583.6	4730.5	1583.9	4774.5	1582.6	4827.7
GR	1575.9	4995.7	1575.5	5000	1575.5	5006	1582.8	5344	1584.5	5401.8
GR	1584.5	5446.3	1582.8	5478.6	1580	5996	1580	6545	1582.8	6722
GR	1584.2	6766.6	1584.7	6820.2	1585.3	6875.9	1587.4	6907.9	1591.8	6956.3
GR	1591.8	6978.1	1590.7	7008.5	1588.2	7050.4	1589.8	7075.6	1590.4	7107.9
GR	1587.2	7141.1	1586.9	7161.9	1586.9	7181.1	1588.2	7210.2	1589.6	7244.9
GR	1585.8	7269.6	1585.8	7303.3	1588.3	7325.4				
X1	318	29	4970	5040	430	494	510			
X3	0			4774.4	1588.7					
GR	1586.3	4749.9	1586.7	4774.4	1588.4	4813.3	1586.6	4840.6	1586	4970
GR	1582.1	5000	1582.1	5030	1586	5040	1586.3	6590.5	1585	6622.8
GR	1585.3	6690.6	1587.1	6740.3	1587.1	6774.4	1587.7	6808.7	1589.8	6847.3
GR	1591.1	6925.5	1590.3	6946.7	1587.4	7039.8	1587.4	7073.8	1588.2	7100.5
GR	1591.1	7150.3	1590.6	7185.4	1587.9	7199.2	1592.8	7298.9	1593.6	7328.9
GR	1593.8	7366.2	1593.6	7397.7	1595.2	7418.4	1595.7	7470.9		

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X1	320	29	4978	5013	255	280	310			
GR	1593	4618.1	1596.2	4662.4	1596.4	4685.8	1594.8	4812.2	1590.8	4901.4
GR	1588.7	4928.8	1588	4978	1584	4998	1583.8	5000	1588	5013
GR	1586	5818	1588	6798	1590.3	6827.7	1590.9	6860.2	1592	6889.7
GR	1592.8	6939.1	1592	6948	1594.1	6978.7	1595.4	7025.3	1595.4	7048.2
GR	1596.5	7144	1597.3	7194.6	1597.3	7244.9	1599.5	7287	1599.7	7330
GR	1600.3	7380.9	1600.5	7428.2	1599.7	7479.5	1599.5	7503.2		
X1	322	19	5460	5530	380	440	430			
GR	1599.1	5000	1598	5047.1	1597	5108.1	1596.4	5162.3	1593.8	5210.3
GR	1592.4	5271.2	1591.9	5340.8	1591.9	5379.9	1591.4	5460	1584.4	5470
GR	1584.4	5520	1591.4	5530	1591.5	5673.5	1592	5680	1592	5761.8
GR	1591	6110	1592	6650	1594.8	7404.8	1596	7540		
X1	324	23	5540	5614	370	450	490			
X3	0					7000	1600			
GR	1601.3	5000	1600.5	5030.1	1598	5069.4	1597.8	5095.2	1597	5149.1
GR	1595.6	5187.1	1595.4	5222	1595.4	5309	1593.8	5365.4	1594.2	5540
GR	1588.2	5547	1588.2	5607	1594.2	5614	1595	5695	1593.8	6773.3
GR	1594.8	6893.7	1595.9	7039.4	1594.3	7129.3	1596.2	7194.5	1600.2	7605
GR	1600.5	7677.4	1601.5	7814.1	1602.2	7872				
X1	326	26	5620	5660	375	530	550			
GR	1604.5	5000	1604.5	5029.3	1602.1	5061.1	1599.9	5107.6	1599.4	5153.5

GR	1600.5	5187.6	1599.4	5207.2	1600.2	5246.5	1600.7	5279.1	1599.6	5315.7
GR	1599.9	5358.3	1600.2	5432.5	1599.9	5505.4	1599.9	5565.7	1597.4	5620
GR	1591.4	5625	1591.4	5655	1597.4	5660	1597	7278.1	1597.5	7438.9
GR	1599.1	7532.5	1600.5	7795.1	1602.6	8071.8	1602.6	8141.4	1604.5	8345.6
GR	1608	8414.8								
X1	328	17	5430	5462	290	270	320			
X3	0					7170	1605			
GR	1604.5	5000	1606.8	5062.4	1606.8	5081.3	1605.5	5134.9	1604.2	5216.2
GR	1604.5	5266.1	1600	5430	1595	5436	1595.1	5456	1600	5462
GR	1600.2	7633.5	1601	7747.3	1602.8	7846.7	1602.8	7939	1603.1	8033.5
GR	1604.7	8207.6	1608	8395						
X1	330	25	5430	5470	380	490	400			
X3	0					7000	1610			
GR	1611.9	5000	1610.9	5036.5	1609.8	5064.5	1610.3	5159.3	1610.1	5202
GR	1608.2	5241.8	1606.6	5267.1	1605.3	5313.4	1605.3	5357.3	1604.3	5430
GR	1597.3	5440	1597.3	5460	1604.3	5470	1604.2	5692.7	1603.9	5794.5
GR	1601.8	7066.8	1602.8	7119.3	1601.5	7160.8	1600.2	7607	1606.1	8493.6
GR	1606.6	8578.4	1608.5	8772.7	1608.7	8793	1610.9	8805.8	1611.7	8814.6
X1	332	28	5651.3	5879.7	400	320	440			
X3	0					7000	1615			
GR	1620.5	5000	1620.5	5015.2	1618.1	5056.4	1615.1	5089.7	1616.7	5115.9
GR	1617	5143.6	1615.9	5168.7	1615.9	5225.8	1615.9	5258.5	1614.9	5281.5
GR	1615.7	5357.8	1615.4	5571.1	1615.1	5601.7	1615.7	5651.3	1614.6	5666.8
GR	1611.1	5717.3	1605	5765.3	1605	5801.6	1612.2	5879.7	1611.9	5924.3
GR	1610.9	5970.4	1606	7237	1604	7587	1604	7587	1609.5	8967.3
GR	1611.4	9191.6	1613.8	9205.8	1615.7	9225				

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NC	0.04	0.04	0.035							
X1	334	57	5960	6015	405	520	410			
X3	0					7083	1616			
GR	1627.9	5000	1626.9	5038.4	1626.1	5063.4	1620.9	5124.2	1623.4	5138.6
GR	1622.3	5190.7	1620.7	5206.3	1623.7	5265.2	1621.8	5325.3	1618.1	5353.3
GR	1619.1	5360	1622.1	5414	1619.9	5427.9	1618.3	5440.4	1620.7	5474.7
GR	1621	5511	1619.9	5545.8	1619.3	5555.5	1620.5	5584.9	1621.3	5626.3
GR	1621.5	5667.4	1621.5	5690.4	1619.9	5735.3	1617.3	5755.6	1619.7	5769.5
GR	1620.5	5778.7	1621	5816.1	1620.5	5840.3	1619.4	5851.9	1616.7	5862.8
GR	1618.1	5882.4	1618.1	5897.9	1609.8	5960	1604.9	5975	1604.9	6000
GR	1609.8	6015	1615.7	6122.1	1615.9	6169.8	1612.2	6234	1612	6320
GR	1611.9	6369.5	1616	7083	1613	7883	1612	8153	1612	8638
GR	1612.2	8692	1613.8	8767.7	1614.3	8893.3	1614.6	9020.6	1614.3	9097.1
GR	1614.6	9173.7	1615.7	9286.3	1615.7	9364.7	1617	9446.3	1616.5	9502.6
GR	1619.7	9521.9	1619.7	9533.9						
X1	336	77	4956.7	5034.8	420	310	440			
X3	0					5650	1625			
GR	1635.2	3574.9	1632.5	3590	1634.3	3607.6	1636	3623.4	1636.2	3645.4
GR	1636	3676.4	1634.3	3728.8	1632.9	3755.4	1633.8	3763.5	1634.6	3810.9
GR	1635.2	3826.6	1634.6	3859.3	1633.6	3915.6	1633	3941	1630.6	3969.1
GR	1629	3996.3	1627.1	4022.8	1626.3	4064.3	1625.3	4114.4	1625.3	4184.8
GR	1623.7	4242.7	1623.9	4314.6	1623.7	4382.2	1623.7	4428.4	1622.9	4460
GR	1621.5	4542.6	1619.9	4591	1620.7	4621.7	1621.8	4651.6	1622.1	4680.2
GR	1619.1	4700.1	1618.9	4716	1622.1	4731.4	1623.7	4744.6	1624.5	4783.8
GR	1624.5	4830.6	1623.4	4889.2	1621.8	4929.3	1621	4956.7	1618.9	4977.5
GR	1617	4984.7	1615.1	4987.1	1615	4988.7	1611.1	4990.6	1609	4992.1
GR	1607.1	4993.2	1607.1	5000	1609.3	5002.6	1610.9	5005.4	1613	5007.7
GR	1614.9	5009.4	1617	5011.5	1617.5	5025.8	1618.1	5034.8	1617.3	5078.4
GR	1618.1	5105.4	1618.1	5130.5	1616.2	5161.6	1614.9	5248.2	1615.4	5285.3
GR	1613.3	5320.9	1620.5	5619.9	1620.5	5659.8	1620.2	6603.5	1620.2	6683.3
GR	1619.6	6900.3	1619.4	6970.3	1618	7020.3	1617.1	7080.3	1617	7140.3
GR	1618	7290	1619.7	7717.4	1620.5	7910	1621	7991.6	1620.2	8046.5
GR	1621.5	8511.4	1622.9	8530.3						
X1	338	54	6509.9	6791	545	475	542			
X3	0			6400	1640	8000	1640			
GR	1647.4	5000	1645.8	5070	1644.8	5110.8	1646.1	5154.7	1645.8	5199.7
GR	1645	5278.4	1643.7	5391.4	1642.6	5460	1639.2	5536.1	1633.8	5553.5
GR	1637.6	5576.7	1640.8	5655.7	1640.5	5688.6	1638.3	5736.3	1637.3	5782.2
GR	1635.2	5841.8	1632.8	5875.5	1630.3	5901.9	1633.3	5929	1633.8	5979.9
GR	1633	6032.8	1633	6079	1630.9	6106.2	1626.6	6134.2	1626.9	6167.8
GR	1626.9	6222.2	1626.9	6258.6	1627.4	6291	1629.8	6329.3	1631.4	6359.2
GR	1632.2	6403.7	1630.9	6466.8	1629	6509.9	1629	6563.8	1627.4	6603.2
GR	1625.5	6622.1	1626.5	6700	1626.2	6791	1627.9	6897.3	1626.9	6954
GR	1627.1	7153.6	1627.1	7194.7	1628	7750	1630.3	8226.6	1629.5	8263.7
GR	1627.7	8284.5	1626.5	8850	1628	8960	1628.7	9020	1628	9110
GR	1625.8	9677.5	1626.9	9899.2	1627.4	9991.3	1632	10180		

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X1	340	48	6275	6337	415	420	440			
X3	0					7600	1631.4			
GR	1648.5	5000	1648.2	5051.6	1646.9	5091.8	1644.5	5120.2	1643.2	5141.4
GR	1643.7	5155.7	1645.6	5246.3	1644.2	5307.7	1641	5380.8	1637.8	5424.4
GR	1633.6	5450.9	1631.4	5466.7	1633	5487.1	1629.8	5530.5	1629.8	5550.4
GR	1632.5	5562.9	1638.1	5594.6	1639.4	5624.7	1639.7	5687.3	1638.1	5725

GR	1637.3	5756.8	1636.3	5824.7	1638.1	5873.2	1635.8	5932	1635.4	5936.4
GR	1628	6275	1617.97	6276	1617.97	6336	1627.97	6337	1630	7350
GR	1631.4	7573.1	1631.4	7646.6	1631.9	7717.7	1631.1	7774.7	1630.9	7815.6
GR	1629.5	8367.6	1633	8739.8	1630.6	9685.1	1631.4	9768.9	1631.4	9863.1
GR	1631.1	9897.6	1636.2	9918.2	1636	10000.2	1634.6	10102.7	1634.9	10154.2
GR	1637.3	10167.8	1634.6	10186.7	1634.1	10198.6				
X1	342	44	5945	6035	500	480	533			
GR	1646.6	5000	1646.6	5051.8	1644.8	5115.6	1643.4	5193.2	1642.6	5273
GR	1642.1	5311.2	1640	5345.6	1638.9	5378.9	1639.4	5426.9	1639.7	5451.7
GR	1640	5485.3	1637.8	5512.3	1639.4	5555.7	1639.2	5590.3	1638.3	5615.3
GR	1631.5	5945	1620.5	5995	1620.5	6005	1631.5	6035	1632	7022
GR	1634.6	7039.9	1634.9	7088.4	1635.4	7231.4	1634.3	7301.8	1633.6	7346.9
GR	1633	7368.1	1633.6	7412.8	1634.3	7482.2	1634.1	7558.3	1634.3	7619.3
GR	1634.6	7692.8	1635.2	7793.2	1634.9	7914.2	1635.2	8026	1635.4	8124.3
GR	1635.7	8223.8	1634.9	8369.2	1634.9	8448.6	1634.6	8532.8	1633.8	8674.5
GR	1633.6	8740.7	1632.8	8803.3	1636.2	8984.7	1635.4	9007.2		
X1	344	47	5900	5960	535	280	510			
X3	0					7000	1639			
GR	1645.6	5000	1645	5027.1	1643.7	5041.8	1642.6	5100	1642.4	5182.6
GR	1640.8	5267.1	1640.2	5345.8	1639.4	5404.4	1638.3	5478.2	1637.6	5590
GR	1631.6	5600	1631.6	5620	1637.6	5630	1637.3	5732.5	1638.3	5779.4
GR	1637	5818.3	1637	5900	1631.6	5910	1631.6	5950	1637	5960
GR	1638.1	6866.6	1638.3	6940.5	1636.1	7034.2	1637.3	7080.5	1636.2	7160.6
GR	1636.5	7204.3	1636.8	7302	1636.5	7392.8	1637.6	7461.9	1637.3	7569.1
GR	1637.6	7619.3	1637.6	7734	1637.8	7812.7	1639	7856.1	1638.3	8080.6
GR	1638.3	8170.6	1638.6	8232.3	1638.3	8321.5	1637.8	8410.9	1637	8496.4
GR	1637.3	8539.5	1637.3	8608.2	1638.5	8675.2	1637.8	8723.1	1641	9047.7
GR	1642.8	9074.5	1642.6	9103.6						
X1	346	47	5600	5655	548	565	625			
X3	0					7990.7	1644.9			
GR	1647.8	5000	1647.8	5043.4	1647.6	5071.8	1644.9	5139.1	1644.4	5210.3
GR	1643.8	5257.7	1644.1	5314.1	1646	5372.8	1646	5429.9	1644.4	5468.4
GR	1645	5495.3	1643.3	5506	1643.5	5600	1635.5	5610	1635.5	5645
GR	1643.5	5655	1642	6744.1	1642	6798.9	1641.2	6832.9	1642.2	6850
GR	1641.7	6909.8	1641.2	6960.4	1641.2	7012.6	1641.7	7036.8	1641.7	7081
GR	1642	7169.1	1642.2	7254.3	1642.2	7344.6	1642.2	7427	1643	7472
GR	1643.6	7541.3	1643.6	7624.5	1644.1	7706.7	1643.8	7790.2	1643.6	7839.9
GR	1643.8	7909.1	1644.9	7990.7	1644.4	8061.8	1643.6	8083	1643.8	8153.8
GR	1644.1	8212.7	1644.6	8261	1644.1	8309.1	1646.8	8329.1	1646.5	8358.1
GR	1645.2	8392.5	1648.2	8444.3						

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X1	348	36	5560	5613	435	401	425			
X3	0					7721.4	1647.8			
GR	1650	5000	1649.4	5057.6	1649.7	5139.7	1650.2	5192.3	1650.2	5255
GR	1648.3	5320.5	1647	5371.7	1645.2	5394.5	1646.2	5417.5	1645.4	5444.8
GR	1645.5	5560	1641.5	5569	1641.5	5604	1645.5	5613	1643.6	6579.2
GR	1644.1	6658.8	1644.4	6754	1644.4	6852.8	1644.1	6930.2	1644.6	6965.3
GR	1644.9	7064	1645.2	7161.8	1645.7	7258.6	1646.2	7348.4	1646.2	7406.9
GR	1646.5	7439.7	1646.8	7529.7	1647.6	7616.1	1647.8	7721.4	1647.3	7794.3
GR	1646	7846	1646	7926.4	1647	7994.4	1647.8	8039.6	1647.3	8063.5
GR	1647.3	8081.1								
X1	350	37	5556.6	5604	322	255	317			
X3	0					7729.7	1649.4			
GR	1654	5000	1654	5026.2	1652.6	5083.2	1652.9	5169.6	1652.3	5218.4
GR	1652.6	5316	1651.6	5384	1650.8	5456.6	1650	5511.1	1650	5546.8
GR	1650	5556.6	1641.4	5558	1641.4	5598	1647.4	5604	1644.4	6597.2
GR	1645.7	6674.7	1646.5	6729.5	1647	6757.7	1646	6818.2	1646.2	6870.7
GR	1647	6930.6	1646.5	6998.9	1646.5	7031	1647	7068.1	1647.3	7150.1
GR	1647.6	7232.2	1647.8	7275.1	1648.1	7353.6	1648.1	7426.9	1647.8	7467.7
GR	1648.3	7555.1	1649.2	7632.2	1649.4	7729.7	1649.4	7810.3	1648.9	7852.3
GR	1647.6	7889.5	1648.1	7929.2						
X1	352	35	5560	5604	245	277	245			
X3	0			5475	1655					
GR	1657.7	5000	1659.8	5021.5	1658.7	5038.8	1658.5	5092.7	1658.5	5112.5
GR	1655.6	5151.7	1654.5	5191.6	1652.9	5227.3	1651	5264.2	1650	5284.2
GR	1649.7	5307.6	1650.8	5325.4	1651.3	5355.9	1650.2	5381.4	1653.2	5460.2
GR	1653.2	5478.6	1651	5504.4	1648.9	5560	1642.85	5567	1642.85	5597
GR	1649.8	5604	1648.1	6532.7	1647.6	6601.9	1648.1	6679.6	1648.9	6758.7
GR	1649.4	6820.3	1650	6904.5	1650.2	6973.4	1651.3	7041.5	1650.5	7117
GR	1651.3	7203.2	1651.6	7290	1651.6	7372.5	1652.6	7459	1652.6	7523
X1	354	52	4944.6	5074.7	487	468	477			
GR	1665.4	4379.8	1665.4	4393	1666.5	4402.9	1666.2	4412.6	1665.4	4421.5
GR	1666.7	4445.7	1666.7	4488.2	1664.9	4541.8	1664.1	4594.9	1663.3	4647.2
GR	1661.9	4690.6	1660.9	4720	1654.2	4734.5	1654.2	4757.2	1656.1	4832.3
GR	1655.6	4858.4	1657.4	4870.9	1657.7	4910.6	1657.7	4944.6	1647	4975.6
GR	1646	5000	1647	5023.6	1658.2	5074.7	1656.6	5108.5	1650.2	5851.6
GR	1651	5916.3	1651.3	5977.6	1652.1	6023.9	1652.6	6105.8	1652.9	6195.5
GR	1653.2	6279.3	1653.7	6390.5	1654.8	6680.8	1656.3	6776.2	1657.7	6833.8
GR	1657.9	6896.5	1658.7	6991.2	1658.7	7074.3	1659.3	7164.3	1659	7255.5
GR	1657.7	7334	1658.5	7421.8	1659.3	7592	1659	7693.1	1659.3	7781.7
GR	1659.3	7863.9	1659.5	7949.6	1660	8048.3	1661.5	8114.7	1663.3	8171.6
GR	1667.7	8195.4	1668.5	8217						

X1	356	53	5106.4	5145	455	560	495			
GR	1666.2	4506.4	1668.1	4541.1	1667.5	4556	1662.7	4582.6	1664.9	4593.7
GR	1665.4	4628.3	1664.6	4638.8	1664.1	4658.2	1663.5	4682.1	1661.9	4713
GR	1660.6	4744.2	1659.8	4773	1658.7	4793.4	1659	4809.3	1660.6	4825.6
GR	1660.9	4848.7	1661.4	4867.9	1660.3	4899.1	1659.3	4942.8	1657.9	4983.5
GR	1656.9	5000	1656.9	5009.9	1655.9	5106.4	1649.9	5107.4	1649.9	5144
GR	1656.5	5145	1655.6	5242.4	1655.8	5262.8	1653.7	5730.7	1654.2	5817
GR	1653.4	5847.6	1656.1	6046.7	1656.3	6117.4	1656.9	6192	1656.3	6256.3

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GR	1658.2	6345.6	1658.8	6428.3	1658.8	6474.7	1659	6587	1659.8	6686.2
GR	1659.5	6751.3	1660.3	6851.7	1660	6941.7	1660	6975.8	1660	7085
GR	1660.5	7186.3	1660.5	7238.1	1660.5	7288.6	1661.3	7398.6	1661.5	7482.3
GR	1660.8	7537.4	1661.3	7582.2	1660	7634.1				
X1	358	45	6208.6	6863.7	440	351	482			
GR	1666.8	5763	1663	5790.8	1666.3	5810.9	1665.8	5843.2	1665	5900.4
GR	1664	5985.7	1663.3	6084.2	1660.5	6158.2	1659	6208.6	1659	6313.7
GR	1658	6360.5	1656.3	6615	1655.8	6660.7	1656.1	6714.8	1656.1	6736.9
GR	1656.1	6762.5	1656.3	6863.7	1656.6	6972.2	1656.6	7038.3	1656.6	7128.5
GR	1656.8	7236.3	1657.5	7355.3	1659	7475.2	1660	7576.5	1660.5	7664.9
GR	1660.8	7778	1661	7798.7	1661	7849.8	1662	7968.6	1661.8	8090.3
GR	1662.5	8219.9	1663.5	8351.7	1665.3	8436.4	1665	8522.7	1666	8602.8
GR	1665.8	8643.1	1668.7	8673.3	1668.2	8723.3	1669	8772.2	1668.2	8782
GR	1669.5	9566	1667	9607.6	1666.8	9659.1	1666.5	9693.3	1668	9742
NC	0.03	0.03	0.03							
X1	359	59	4956.2	5706.9	60	60	60			
GR	1664.3	4723.3	1663.8	4798.7	1662.5	4899.7	1661	4956.2	1658.8	4976.9
GR	1656.6	4984.8	1654.8	4988.3	1654.8	5000	1655.1	5001.8	1657	5006.8
GR	1658.3	5026.4	1658.3	5079.5	1657.5	5172.7	1657.3	5243.6	1656.6	5370.4
GR	1654.8	5396.7	1653.3	5415.5	1656.3	5424.2	1657	5461.3	1653.6	5485.4
GR	1654.1	5508.1	1656.1	5520.2	1656.1	5559.6	1656.3	5567	1656.8	5641.9
GR	1658.8	5706.9	1655.5	5950.7	1658.5	6049.6	1655.5	6143.3	1659.3	6234.1
GR	1660.8	6305.7	1661.5	6385.9	1661.8	6407.4	1662	6468.5	1662	6563.3
GR	1662.5	6642.7	1663	6734.2	1663.8	6859.5	1664	6962.9	1664.8	7037.8
GR	1665.5	7134.6	1665.8	7187.5	1665.5	7223.4	1665.5	7336.7	1666.5	7425.6
GR	1668	7539.5	1669	7621.2	1669	7717.6	1668.7	7823.5	1668.5	7909.4
GR	1668.2	7968.3	1668.5	8056.2	1668.7	8160.8	1668.2	8258.5	1668.5	8354.2
GR	1668.7	8432.2	1668.2	8483.7	1667.2	8526.8	1665.5	8535.8		
X1	359.1	68	4654.5	6459.6	79	79	79			
X3	0			4540	1670.7					
GR	1668	4370.9	1668.8	4389.8	1669.8	4432.1	1666.5	4474.1	1667	4491.6
GR	1669.7	4524	1670.7	4540	1670	4576.5	1668.2	4599.4	1664.5	4625.6
GR	1664.3	4633.1	1666.5	4694.8	1668.8	4687.8	1664.7	4722.3	1663.9	4759.4
GR	1663.7	4821.8	1662.6	4900.7	1661	5000	1659.1	5062.7	1657.8	5115.9
GR	1657	5194	1656.5	5272.8	1658.7	5358.7	1656.2	5421.3	1657	5447.6
GR	1658.1	5487.8	1658.3	5524.6	1658.2	5548.8	1658.1	5581.6	1658.9	5629.8
GR	1659.1	5665.5	1659.1	5734.3	1658.1	5828.1	1658.9	5911.2	1658.5	5982.8
GR	1658.9	6059.2	1659.4	6157.2	1660.5	6258.6	1661.3	6314.7	1661.5	6394.9
GR	1662.1	6459.6	1661.8	6527.1	1662.1	6613.9	1662.3	6692.2	1662.6	6774
GR	1662.9	6867.1	1662.9	6974.2	1663.1	7085.1	1663.7	7167.4	1663.9	7236.1
GR	1664.7	7317.5	1665.3	7402.7	1665.5	7489.9	1665.8	7584.9	1665.5	7688
GR	1665.3	7793.7	1665.3	7893.7	1665.3	7967.7	1665.3	8058.4	1663	8166.3
GR	1664.2	8266.3	1663.7	8371.1	1664.8	8478.5	1664.6	8511.4	1664.7	8561.1
GR	1664.2	8661.1	1666.1	8694.1	1668.5	8750.6				
NC	0.04	0.04	0.035							
X1	360	59	4973.7	6262.2	58	58	58			
X3	0					6265	1665			
GR	1671.7	4603.9	1669	4626.8	1664.8	4645.3	1667.5	4666.2	1667.7	4704.4
GR	1665.3	4789	1663	4873	1661	4973.7	1659	4980.5	1657	4985.2
GR	1657	5000	1657	5006.2	1659	5011.5	1660.5	5022	1658.8	5071.1

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GR	1657.8	5149.3	1657	5225.1	1656.6	5311.7	1655.8	5400.3	1653.8	5465.8
GR	1655.3	5487.1	1656.3	5527.4	1656.6	5577.1	1655.1	5599	1655.3	5617.1
GR	1657	5715.2	1658.3	5830	1655.3	5916.5	1658.8	6000.3	1658.8	6093.3
GR	1659	6179.1	1659.8	6262.2	1659.3	6313.4	1659.3	6354.7	1660	6470.4
GR	1661	6554.7	1661	6639.4	1661.8	6738.7	1662.3	6819	1663.3	6902.4
GR	1663	6960	1662.8	7053.4	1663.5	7089.8	1663.3	7199.6	1664	7324.2
GR	1664.5	7435.5	1665	7549.9	1665.3	7681.3	1666	7795.5	1666.5	7917.8
GR	1667	8032.4	1667	8058.3	1666.8	8128.8	1666.8	8264.1	1667.2	8406.1
GR	1668.2	8484.8	1668.5	8501.5	1668.5	8547.1	1671	8614.6		
X1	361	51	4956.4	6754.5	54	54	54			
GR	1664.3	4647.5	1668.2	4663.7	1668.5	4712.2	1666.3	4770.8	1663.8	4822.9
GR	1663.8	4926.8	1663.3	4956.4	1662	4974.5	1659.3	4982	1657.5	4988.2
GR	1656.3	4990.5	1656.3	5000	1656.3	5006.9	1658.3	5010.9	1659.3	5016
GR	1659.3	5042	1657.8	5084.9	1657.5	5121.4	1657.5	5237.4	1657.8	5404.6
GR	1657	5462.4	1654.8	5495.2	1657.3	5555.2	1656.8	5600.3	1657.8	5639.2
GR	1656.8	5783.7	1654.3	5788.5	1654.3	5793.5	1656.8	5799.7	1662.8	6754.5
GR	1663	6848	1662.5	6940.1	1662.8	7020.8	1663.8	7110.2	1665	7202.9
GR	1666.3	7299.9	1666.3	7309.8	1667.2	7353.7	1666.3	7466.2	1666.5	7572.3
GR	1667	7676.8	1667.7	7784.2	1667.7	7875.6	1667.2	7965.8	1667.2	8059.4
GR	1667.5	8162.2	1667.7	8202.9	1667.5	8275.5	1667.7	8332.1	1673.7	8352.5
GR	1673.2	8398.7								

X1	362	51	4950.3	5017.8	491	759	547			
X3	0					6162	1668			
GR	1671.5	4690	1668	4692.2	1671.2	4702.5	1670.5	4735.8	1670.5	4754
GR	1668	4778.7	1665.8	4800.6	1664.3	4831.9	1664.5	4881	1666	4950.3
GR	1665.3	4974.8	1664.5	4982.7	1662.3	4986.6	1660.8	4991.2	1659	4994.6
GR	1659	5000	1659	5007.1	1661.3	5012.9	1664	5017.8	1663.8	5039.5
GR	1663	6241	1662.8	6356.7	1662.8	6450.8	1663.3	6577.8	1663.5	6693.4
GR	1664.3	6776.6	1668	6830.2	1668	6870.5	1667.7	6933.8	1667.2	7012.4
GR	1667.2	7038.1	1668.2	7093.7	1670.5	7180.2	1676.7	7230.1	1679.2	7286
GR	1680.2	7363.1	1679.7	7437.1	1680.7	7523.6	1680.4	7622	1677.9	7789.6
GR	1676.2	7837.2	1674.7	7869.9	1673	7921.2	1671.5	7963.3	1669	8010.2
GR	1668.5	8052.2	1670.5	8079.6	1672.7	8137.9	1669.2	8157.9	1669.5	8182.4
GR	1676	8222.1								

X1	364	54	5046.2	5176.2	550	559	551			
GR	1678.2	4703.4	1677.9	4720.2	1678.2	4748.6	1677.5	4767.4	1679.2	4819.4
GR	1678.7	4879.8	1677.5	4917.1	1675	4937.3	1671.7	4954.7	1671.2	4966.9
GR	1669	4973	1667.2	4976.7	1665.3	4978.9	1664	4982.8	1663.8	5000
GR	1663.8	5016.9	1665.5	5023	1666.8	5028.8	1667	5046.2	1665	5056.5
GR	1664.8	5076.3	1664.5	5099.3	1661.5	5121.5	1661.8	5141.1	1664.3	5148.5
GR	1663.8	5166	1666.8	5176.2	1666.3	5201.3	1665.3	5211.2	1664	5569
GR	1666	6080	1668	6590	1671	6616.2	1670.5	6693.7	1671.5	6809.1
GR	1672.2	6915.8	1672.2	6993	1673	7075.1	1672.2	7174.7	1672.2	7250.1
GR	1673.5	7314.3	1675.2	7416.6	1674.7	7520	1675.2	7610.7	1675.2	7706.2
GR	1674.7	7794.1	1674.2	7833.8	1671.7	7857.2	1670	7891.2	1670.5	7965.6
GR	1670.5	8012.5	1671	8041.6	1676	8079	1676.5	8100.3		

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X1	366	35	4975.1	5056.1	440	447	460			
GR	1674	4647.7	1675	4669.6	1674	4717	1673.7	4741.7	1671	4809.7
GR	1668.2	4857.8	1667.7	4890.5	1668	4975.1	1666.5	4989.8	1665	5000
GR	1665.3	5020.6	1667.2	5027.6	1668.3	5036.2	1668.7	5056.1	1668	5079.2
GR	1667	5090.8	1668	5958	1673.5	6582	1672.7	6671.7	1672.7	6762.9
GR	1673.2	6844	1673	6922.3	1673.5	6969.3	1674	7111.8	1674.5	7214.9
GR	1675	7302.1	1675	7359.2	1674.2	7401	1673.7	7464.8	1673	7547.9
GR	1672.7	7589.3	1672.7	7630.7	1672.5	7698.8	1673.2	7774	1674	7834.6

X1	368	46	4926.5	5045.2	439	452	440			
X3	0					6635	1675			
GR	1679.4	4397.9	1677.5	4427.1	1675.7	4449.2	1675.5	4484.2	1673	4543.1
GR	1672	4586.6	1672	4615	1674	4622.9	1671.5	4650	1671.5	4688.9
GR	1671	4729.6	1671.5	4762.3	1672.2	4789	1671.2	4810.9	1671.7	4827.3
GR	1671.2	4902.4	1670.5	4916.9	1670.2	4926.5	1668	4935.6	1667.5	4940.9
GR	1667.2	4964.9	1667.5	4983.2	1666.5	4990.8	1666.5	5000	1667	5012.4
GR	1669.7	5019.3	1670	5025.9	1670.2	5045.2	1668.5	5056.9	1669.2	6141
GR	1670	6227.4	1671	6328.5	1670.2	6413	1670.5	6511.7	1671.5	6618
GR	1671.5	6717.7	1671	6822.9	1671.5	6863.5	1671.7	6929.1	1671.2	7026.2
GR	1670.7	7105.1	1671.5	7187.3	1671.2	7271.5	1671.2	7301.1	1671.7	7400.1
GR	1673	7508.3	1673.2	7570.2	1674.5	7637.2				

X1	370	53	4953.7	5026.6	428	463	479			
X3	0			4785	1680	7205	1672.5			
GR	1680.7	4481.6	1676.2	4523	1676.2	4559.6	1674.2	4593.8	1672.7	4625.5
GR	1671	4661.1	1671.2	4693.5	1671.2	4729.7	1673	4749.5	1675	4781.2
GR	1673.2	4827.2	1673	4909.1	1672.5	4935.4	1673.5	4953.7	1672.7	4974.4
GR	1670	4982.5	1668	4990.7	1668	5000	1668	5009.5	1670.2	5015.5
GR	1672.7	5026.9	1672.2	5045.6	1670.7	5055.9	1669.5	5496.4	1669.7	5868.6
GR	1669.7	6263.1	1670.5	6299.4	1672	6355.5	1670.5	6394.1	1670.5	6572.3
GR	1670.5	6635.8	1671	6723.7	1671.7	6808.1	1671.5	6868.4	1671.2	6917.2
GR	1672.5	7207.2	1671	7253.2	1671.5	7320.1	1672.5	7523.3	1672.7	7560.6
GR	1673.5	7593	1673.5	7600	1669.5	7628.4	1668.2	7639.1	1672.2	7676
GR	1674	7696.4	1676	7727.7	1675.5	7748.5	1676.7	7786	1676.7	7820.7
GR	1675.5	7855.3	1675.7	7885.6	1676.7	7929.4				

X1	372	48	4909.3	5025.3	580	519	571			
X3	0					7150	1680			
GR	1677.7	4577	1676.5	4600.7	1675	4630	1675.5	4657.8	1674.5	4714.7
GR	1675.5	4730.8	1676.5	4754.7	1675.2	4794.3	1675.2	4829.1	1674.5	4909.3
GR	1672.7	4962.5	1672.5	4979.3	1670.7	4985.6	1669.5	4989.9	1669.5	5000
GR	1669.7	5009.8	1672.2	5016.6	1674	5025.3	1674.2	5063.1	1672.7	5107.5
GR	1672.7	5140.8	1672.5	5189.9	1672.7	6779.7	1674	6843.8	1673.5	6939.6
GR	1673	7034.3	1673.2	7116.6	1672.5	7340.3	1673	7426.1	1674.6	7498.6
GR	1673.5	7532.3	1673.5	7600	1672	7641.4	1670.7	7690	1673	7798.6
GR	1674.2	7886.9	1673.7	7908.7	1673	7921	1672.2	7946.5	1672.7	7968.3
GR	1672.5	8002.4	1673.5	8012.5	1671.2	8059.6	1673	8115.3	1676	8175.1
GR	1676.7	8193.9	1676.2	8272	1676.2	8325.3				

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X1	374	44	4905.5	5047.8	425	412	414			
X3	0					6850	1676			
GR	1680.4	4450.3	1679.7	4493.8	1678.7	4525.4	1680.7	4552.3	1681.2	4576.9
GR	1681.4	4609.8	1679.7	4620.7	1676.5	4641	1677	4703.7	1675.7	4760.3
GR	1675.5	4833.2	1675	4858.2	1677.2	4874	1677	4905.5	1676.2	4924.1
GR	1674.2	4949.8	1673.7	4975.1	1671.7	4981.7	1670.2	4988.1	1670.2	5000
GR	1670.2	5015.8	1673	5020.8	1675.2	5027.2	1675	5047.8	1672.7	5059.9
GR	1672.2	5110.9	1674	6982	1679.7	7271.5	1676	7304	1676	7334
GR	1676	7357	1675.5	7429.1	1674.7	7490	1674.7	7580.3	1674.5	7706.5

GR	1674.5	7772.2	1673.7	7838.9	1674	7892.7	1673.5	7929.9	1673.2	7984
GR	1673.5	8082.3	1673.2	8128.9	1672.2	8190	1676	8278		
X1	376	50	4874.4	5078.3	482	501	492			
X3	0					6475	1680			
GR	1683.2	4224	1682.4	4265.7	1680.9	4323.7	1680.4	4340.4	1682.7	4355.5
GR	1684.2	4374.5	1683.2	4400.2	1681.2	4422.1	1682.4	4443.5	1684.9	4468.5
GR	1686.4	4492.4	1687.7	4520.1	1687.9	4547.5	1687.7	4577.6	1686.4	4608.3
GR	1685.4	4642.8	1684.7	4681	1683.4	4721.1	1682.7	4753.7	1680.4	4820.3
GR	1679.2	4874.4	1678.4	4892.9	1676.5	4906.8	1674.5	4918.5	1673	4927.9
GR	1672.2	4935.8	1672.2	4953.7	1672	4967.1	1671.5	4974.4	1671.5	5000
GR	1671.7	5006.7	1672.7	5014.6	1673	5026.3	1673.2	5038.1	1674.7	5053.3
GR	1677.2	5068.5	1678.2	5078.3	1675	5104.7	1674.5	5159	1676.5	7070.7
GR	1677	7120.4	1677.2	7193.3	1679.7	7210	1680.7	7225.8	1680.9	7249.5
GR	1679.9	7267.8	1678.2	7290.6	1676.2	7324.4	1678.7	7341	1680.9	7359.3
X1	378	68	4948.3	5135.5	449	453	453			
X3	0			4919	1681.9	6300	1685			
GR	1683.2	4103.4	1682.9	4134.8	1683.4	4175.8	1682.7	4225.3	1685.2	4242.4
GR	1685.7	4261.8	1686.2	4291.9	1684.9	4305	1680.7	4318.8	1680.4	4348.2
GR	1679.2	4372.9	1678.7	4398.7	1675.7	4420.7	1675.5	4439.1	1677.5	4458.7
GR	1680.4	4479.6	1683.4	4502.7	1685.7	4531.1	1686.4	4566.6	1686.2	4602.7
GR	1685.2	4633	1684.2	4646.2	1681.9	4664.2	1678.9	4680.3	1676.2	4714.3
GR	1675.5	4742	1677.2	4770.1	1677.9	4797.8	1677.7	4831.4	1678.4	4868.8
GR	1679.2	4895.6	1681.9	4918.8	1681.9	4948.3	1679.9	4956.3	1677.9	4964.6
GR	1676.2	4968.2	1674	4973.8	1671.7	4991.3	1671.7	5000	1671.7	5011.4
GR	1673	5014.6	1673	5027.2	1673	5039.1	1673	5045.8	1673	5075.9
GR	1673	5094.7	1672.5	5103.3	1673.7	5108.6	1675.7	5116.7	1677.5	5122.5
GR	1679.4	5128.2	1681.4	5135.1	1681.4	5165.6	1677.5	5176.6	1677.1	6323.7
GR	1677.6	6419.4	1676.4	6485.3	1679.1	7022	1678.9	7046.1	1677.4	7073.4
GR	1677.6	7087.6	1678.9	7107.4	1675.6	7140.3	1672.9	7158.5	1672.7	7172.8
GR	1673.2	7200	1677.6	7249.2	1681.8	7271.6				
X1	380	49	4925.5	5110	504	528	512			
X3	0			4903	1685	5885	1684			
GR	1691.3	4007.4	1694.3	4029.8	1696.3	4078.5	1691.3	4106.3	1690.1	4161.9
GR	1687.1	4322.9	1683.6	4450.7	1682.1	4523.3	1681.4	4574.5	1680.1	4657.1
GR	1679.9	4732.0	1679.9	4755.9	1681.6	4775.7	1682.1	4809.1	1681.6	4831.3
GR	1680.4	4849.7	1681.1	4867.7	1683.6	4883	1684.3	4925.5	1682.1	4931.6
GR	1680.4	4937.8	1678.1	4945.7	1676.4	4951.1	1675.4	4959.3	1674.9	4975.7
GR	1674.7	4993.4	1674.2	5000	1674.2	5018.1	1674.4	5024.6	1674.4	5044.8
GR	1675.4	5053.1	1675.6	5066.6	1675.9	5087.6	1678.1	5094.2	1680.1	5099.9
GR	1681.8	5103.4	1684.1	5110	1684.1	5137.8	1678	5940	1680.6	6351.6
GR	1680.1	6412.9	1680.6	6430.7	1679.9	6542.9	1680.1	6585.8	1680.4	6671.1

GR	1681.8	6706.3	1682.3	6767.3	1681.6	6814.3	1680.9	6845.7		
X1	382	55	4911.7	5127.1	514	539	509			
X3	0			4875	1684.6	5390	1684			
GR	1698.8	3824.3	1698.8	3878.5	1694	3905.6	1692.3	3927.9	1691.8	3956
GR	1690.8	3990.4	1690.6	4024	1690.1	4055.3	1689.8	4090.6	1688.6	4116.9
GR	1688.3	4150.6	1688.1	4204.4	1688.1	4272.4	1687.6	4351.2	1687.6	4392.4
GR	1687.8	4430.2	1687.3	4485.1	1687.3	4530.6	1689.1	4545.7	1690.1	4570.3
GR	1687.3	4593.7	1682.1	4629.5	1681.4	4660	1681.4	4715.6	1682.3	4768.2
GR	1682.8	4809	1683.1	4849.5	1682.8	4862.7	1684.6	4873.1	1684.3	4911.2
GR	1682.3	4925	1680.1	4931.4	1678.4	4934.5	1676.1	4939	1675.4	4945.1
GR	1674.2	4956.5	1674.2	4981	1674.2	5000	1674.9	5003.8	1676.1	5012.3
GR	1674.9	5048.5	1674.9	5059	1675.9	5068.7	1677.4	5076.3	1679.1	5081.7
GR	1681.1	5087.4	1683.1	5093.2	1683.8	5098.1	1684.6	5127.1	1679.6	5262.9
GR	1680.6	5438.8	1683.8	6437.2	1683.8	6480.6	1684.1	6611.2	1684.1	6822.8
X1	384	81	4815.4	5078.9	512	512	512			
X3	0					5260	1686			
GR	1705.2	3574.2	1707	3608.2	1707.5	3641.4	1707.2	3671.4	1703.2	3686.1
GR	1703	3697.6	1702.5	3722.8	1702.2	3793.1	1702.5	3855.5	1700.7	3952.8
GR	1696.5	4011.2	1693.8	4088.3	1693.3	4137.2	1692.5	4170	1692.5	4199.9
GR	1692.8	4240.3	1692.8	4278.8	1693.3	4336.1	1693.3	4361	1688.8	4389.7
GR	1687.1	4472	1685.8	4528.4	1684.6	4576.1	1683.3	4631.5	1683.1	4667.2
GR	1684.8	4703.9	1687.1	4737.3	1687.1	4760.6	1687.1	4786.6	1689.3	4800.2
GR	1691.1	4815.4	1690.3	4849.6	1688.8	4869.5	1688.1	4893.8	1685.8	4901.1
GR	1684.1	4908.4	1682.1	4913	1680.1	4916.9	1678.1	4925.6	1676.6	4931.7
GR	1675.6	4941.6	1675.4	4977	1675.4	4995.4	1674.4	5000	1674.4	5005.3
GR	1674.4	5016.6	1675.6	5025.2	1676.1	5041.9	1676.4	5056.2	1678.1	5061.9
GR	1680.1	5066.6	1682.1	5070.6	1684.1	5075.5	1685.3	5078.9	1685.3	5109.3
GR	1684.1	5118	1682.6	5436.1	1682.3	5575.3	1682.1	5607.6	1682.8	6200.8
GR	1683.1	6263.6	1684.8	6296.6	1685.1	6397.5	1685.6	6463.3	1685.3	6501.4
GR	1686.1	6516.6	1685.3	6534.5	1681.6	6556.5	1681.1	6578.9	1679.4	6613.1
GR	1678.6	6649.7	1679.6	6669.7	1681.1	6696	1683.1	6716	1682.8	6750
GR	1682.1	6778.1	1681.6	6812	1681.6	6856.2	1680.6	6874.3	1682.6	6898.6
GR	1685.3	6930.3								
X1	386	73	4888.3	5075	535	584	535			
GR	1720.4	3411.3	1717.6	3443.1	1715.7	3472.9	1712.9	3502.1	1711.2	3527.5
GR	1708.4	3564	1707	3592.4	1705.7	3631.6	1708.4	3656.9	1709.7	3677.5
GR	1708	3709	1705.5	3750.4	1702.5	3789.8	1702.2	3838.2	1701.7	3864.3
GR	1703.7	3891	1704.2	3914.4	1703.7	3927.8	1701.5	3946.6	1702	3964.4
GR	1699.5	3995.1	1701.7	4016.7	1701.5	4048.3	1703	4069	1698.5	4104.7
GR	1697.5	4140.6	1692.8	4176.1	1691.8	4197.4	1696	4218	1703.2	4233.1
GR	1703.5	4246.9	1698.5	4264.6	1695.5	4300.1	1697.3	4339.1	1691.6	4376.9
GR	1690.3	4405.8	1689.1	4469.2	1688.8	4522.2	1689.1	4585.9	1687.1	4632.9

GR	1686.1	4675.3	1687.3	4720.7	1685.3	4759	1684.8	4807.4	1684.8	4830.9
GR	1686.6	4858.1	1687.8	4874.1	1687.8	4888.3	1685.1	4900.6	1683.1	4906.5
GR	1680.1	4913.7	1678.1	4921.7	1677.1	4925.2	1677.1	4939.6	1676.9	4966
GR	1677.1	4976.7	1677.4	4984.3	1675.1	4991	1675.1	5000	1675.4	5001.2
GR	1676.4	5020.7	1677.6	5044.1	1679.1	5052	1681.1	5059.1	1683.3	5065.2
GR	1685.1	5071.1	1687.1	5075	1687.1	5097.1	1684.6	5114.9	1684.6	5516.3
GR	1687.3	6177.7	1690.6	6202.1	1689.3	6228.5				

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X1	388	81	4873.9	5085.9	470	426	456			
X3	0					5833	1693.3			
GR	1734	3500.3	1732.3	3525.2	1730.3	3547.7	1726.6	3584.9	1725.1	3613
GR	1722.1	3640	1717.4	3665.2	1715.2	3670.7	1718.6	3684	1720.6	3716.1
GR	1720.4	3745.8	1718.9	3771.5	1716.4	3794.1	1715.9	3810.5	1712.9	3830.8
GR	1711.4	3837.6	1712.7	3864.8	1711.9	3890.7	1709.7	3913.5	1708	3925.9
GR	1708	3951	1706.5	3969.9	1707.5	3994.7	1705.2	4011.9	1704.2	4017.6
GR	1708.9	4053.8	1702.7	4090	1700.2	4120	1704.7	4140.1	1703.2	4183.2
GR	1702	4222.2	1701.5	4262.2	1699.3	4276.8	1704	4311.8	1692.3	4349.7
GR	1691.8	4391.4	1692.5	4445.4	1692	4489.2	1689.1	4596	1689.8	4635.6
GR	1688.3	4683.5	1687.6	4715	1687.6	4741	1688.6	4765.6	1688.8	4826
GR	1688.3	4873.9	1686.8	4894.7	1686.1	4904.4	1684.1	4908.4	1682.3	4911.8
GR	1680.4	4916.5	1678.1	4919.1	1678.1	4925.9	1677.6	4930.6	1676.1	4937.3
GR	1676.1	4953	1676.6	4959.6	1676.9	4978	1676.4	4986.8	1675.6	4991
GR	1675.6	5000	1676.9	5004.8	1676.9	5016	1677.1	5033	1676.6	5045.3
GR	1677.1	5055.4	1677.6	5059.9	1679.9	5067.2	1682.1	5074.2	1684.1	5079.3
GR	1686.1	5082.2	1687.1	5085.9	1687.1	5107	1687.6	5653.1	1687.6	5700.6
GR	1688.1	5746	1687.8	5776.3	1687.8	5800.1	1693.3	5816.1	1693.3	5833
GR	1686.1	5857								

X1	390	79	4874.4	5144.2	534	449	532			
GR	1722.6	3490.2	1720.4	3537.9	1719.4	3592.6	1718.4	3635.1	1716.2	3666.7
GR	1708.9	3696.3	1708	3742.4	1707	3787.9	1709.7	3822.9	1709.9	3867.8
GR	1708.9	3918.3	1708.9	3935	1705.7	3952.3	1707.2	3981.4	1707.5	4014.8
GR	1707.5	4040.7	1706	4065	1704.2	4094.3	1700.7	4127.1	1695.8	4164.6
GR	1694.8	4181.4	1696.3	4191.6	1694	4209.3	1691.6	4222.1	1694.3	4239.2
GR	1692	4251.5	1691.8	4276.3	1695.5	4285.7	1696.5	4315.2	1693.3	4336
GR	1691.1	4392.3	1691.1	4457.6	1689.8	4510.5	1687.6	4552	1687.8	4615.1
GR	1687.1	4681.3	1687.6	4720.4	1690.8	4763.8	1690.8	4796.6	1690.3	4836.8
GR	1690.3	4874.4	1688.8	4885.5	1688.1	4899.2	1686.1	4905.2	1683.3	4912.2
GR	1680.9	4919.6	1678.9	4922.7	1678.1	4926.7	1677.6	4940.4	1677.6	4950
GR	1677.9	4969.5	1677.4	4984.2	1676.4	4991.3	1675.9	5000	1675.9	5004.7
GR	1677.1	5012	1677.6	5035.4	1678.9	5052.1	1679.1	5062.1	1679.1	5070.3
GR	1682.1	5072.1	1683.3	5075.6	1685.3	5078.4	1687.1	5082.3	1689.1	5086.1
GR	1689.1	5102.5	1689.8	5116.5	1691.1	5144.2	1688.6	5369.7	1688.8	5445.9
GR	1686.8	5576.8	1686.3	5602.6	1687.3	5652.6	1695.3	5664.3	1695.5	5679.3
GR	1688.8	5703.2	1690.6	5733.1	1691.3	5755.3	1691.3	5771.4		

X1	392	69	4762.4	5141.4	590	531	577			
GR	1692.5	3835.9	1692	3887.8	1691.8	3951.5	1691.6	4018.1	1691.1	4050.1
GR	1694.8	4076.5	1695.5	4104.1	1703.8	4135.1	1696	4160.9	1694.8	4212.7
GR	1694.8	4269.9	1695	4317	1691.1	4361.1	1692	4402.7	1692.8	4444.3
GR	1691.3	4481.5	1690.1	4510.7	1690.3	4543.2	1691.1	4590.9	1691.1	4632.5
GR	1695.8	4646.6	1697	4679.4	1695.8	4707.2	1696	4762.4	1694.8	4816.3
GR	1694	4844.6	1692.3	4877.6	1689.3	4891.7	1689.3	4904.7	1687.1	4914
GR	1685.1	4920.4	1683.1	4925.5	1681.1	4930.9	1679.4	4936.2	1678.4	4946
GR	1677.6	4955.4	1677.9	4965.8	1679.1	4970.1	1678.6	4985.5	1676.9	4992.8
GR	1676.6	4994.8	1676.6	5000	1676.9	5005.3	1678.6	5009.2	1678.9	5017.1
GR	1677.4	5025.1	1677.1	5030.4	1678.1	5056.3	1678.9	5065.7	1679.4	5068.8
GR	1681.4	5071.1	1683.1	5077.7	1685.1	5081.8	1687.1	5087.2	1689.1	5092.8
GR	1689.1	5107.8	1691.1	5117.1	1692.5	5141.4	1692.5	5163.9	1692.3	5190.4
GR	1692	5203.9	1689.3	5223.7	1689.6	5269.6	1688.8	5403.3	1687.6	5476.9
GR	1696.5	5494.8	1696	5510.8	1691.1	5526.7	1691.3	5555.2		

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X1	394	56	4743.5	5127.8	448	450	448			
GR	1711.2	3827.5	1694.3	3876.8	1693.8	3911.3	1697	3928	1695.3	3991.7
GR	1693.8	4061.6	1692.8	4123.7	1691.1	4206.2	1691.1	4281.1	1691.1	4347.7
GR	1689.8	4380.7	1695.3	4743.5	1693.8	4768.2	1692.3	4837.9	1690.8	4848.9
GR	1691.1	4859.5	1689.1	4866.7	1687.3	4870.8	1685.3	4876.5	1683.3	4882.4
GR	1681.4	4888.1	1681.1	4893.5	1680.1	4901.6	1680.1	4911.3	1678.1	4922
GR	1677.9	4929.1	1679.6	4934.1	1680.1	4940.5	1679.6	4951.8	1678.6	4957
GR	1677.4	4959.5	1677.9	4968	1679.1	4978.6	1678.9	4987.2	1677.9	5000
GR	1679.6	5012.7	1681.4	5022.6	1683.1	5034.5	1684.1	5036	1686.1	5040
GR	1688.1	5045.2	1689.1	5049.8	1689.3	5064.7	1692	5075.9	1692.8	5099.6
GR	1692.8	5112.8	1694.3	5127.8	1688.8	5146.4	1689.1	5169	1689.1	5314.6
GR	1688.6	5342.3	1689.3	5392.6	1697.3	5412	1697.3	5425.1	1692.8	5442.7
GR	1692.3	5468.6								

X1	396	56	4901.7	5137.7	520	498	507			
X3	0			4703	1696.3	5464.9	1699.8			
GR	1695	4099.9	1693.8	4172.5	1693.8	4238.5	1693	4314.2	1691.8	4370.8
GR	1688.6	4390.9	1690.8	4403.6	1690.6	4427.4	1692	4445.7	1692.5	4477.4
GR	1692.8	4507	1693	4569.9	1692.5	4643.5	1695.8	4668.7	1695	4688.7
GR	1696.3	4703	1695.3	4748.5	1694.3	4782.2	1693.3	4816	1692	4869
GR	1691.1	4901.7	1689.3	4909.3	1687.3	4915.2	1685.3	4920	1683.3	4924.7
GR	1681.6	4925.5	1681.6	4931.9	1680.6	4940.7	1678.9	4949.3	1678.4	4956.7
GR	1681.6	4968.2	1681.4	4974	1680.4	4980	1678.4	4990.9	1678.4	5000

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GR   1680.1     5005.4     1680.1     5015.5     1680.6     5036.5     1680.1     5057.5     1682.6     5065.7
GR   1684.1     5069.9     1686.1     5075.2     1688.1     5080       1690.1     5085.9     1692.3     5109.2
GR   1692.8     5137.7     1692.8     5151.4     1690.6     5371.3     1690.8     5420       1690.1     5445.1
GR   1699.8     5464.9     1699.8     5478.4     1691.1     5498       1691.1     5515       1687.8     5524
GR   1687.8     5540.6

NC      0.03       0.03       0.015      0.3        0.5
X1       398         29       4942       5122        305        371        352
X3        10                             4927       1692       5139       1692
GR   1689.4     4460.9     1689.1     4492.5     1688.9     4541.8     1690.6     4574.9     1691.9     4594.8
GR   1691.9     4621.4     1692.4     4644.6     1692.1     4672.7     1690.9     4691.9     1689.1     4742.3
GR   1688.6     4795.1     1688.6     4845.8     1688.4     4892.4     1688.6     4922.8     1686.55       4942
GR   1676.3        4972    1676.3        5092    1686.94       5122    1688.1     5141.5     1689.4     5148.7
GR   1690.1     5158.2     1690.9     5173.2     1690.9     5190.7     1690.4     5214.5     1690.9     5235.5
GR   1691.6     5261.3     1691.4     5294.6       1692       5340       1696       5516
  Downstream Vegas Valley Rd.
  Special Bridge, Bridge elevations taken from field survey conducted by
  Nolte & Associates 12-2-97

        Downstream Vegas Valley Rd.
        Special Bridge, Bridge elevations taken from field survey conducted by
        Nolte & Associates 12-2-97
X1       400         26       1377     1501.5        120        232        170
X3        10
GR   1701.1           0     1698.8      107.6     1696.9      199.2     1694.4      294.5     1692.6      399.5
GR   1690.2       507.9     1689.4      598.4     1689.2      722.4     1689.4      817.9     1689.6      950.5
GR   1689.6      1062.2     1689.6     1160.4     1689.1     1261.9    1690.674     1372.2     1691.5       1377
GR   1676.3      1377.1     1676.3     1501.4     1691.5     1501.5     1690.1     1510.3     1690.6     1628.8
GR   1690.6      1628.9     1691.1     1718.1     1691.9     1795.3     1692.5     1917.5       1694     2112.9
GR     1696      2204.5
1
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SB      1.25        1.5        2.6        125        125        4.5       1224          0     1676.7     1676.3
X1     400.1         26       1377     1501.5       88.7       88.7       88.7
X2                                1     1687.1     1691.5                             2
X3        10
GR   1701.1           0     1698.8      107.6     1696.9      199.2     1694.4      294.5     1692.6      399.5
GR   1690.2       507.9     1689.4      598.4     1689.2      722.4     1689.4      817.9     1689.6      950.5
GR   1689.6      1062.2     1689.6     1160.4     1689.1     1261.9    1690.674     1372.2     1691.5       1377
GR   1676.7      1377.1     1676.8     1501.4     1691.5     1501.5     1690.1     1510.3     1690.6     1628.8
GR   1690.6      1628.9     1691.1     1718.1     1691.9     1795.3     1692.5     1917.5       1694     2112.9
GR     1696      2204.5

NC                                                0.1        0.3
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98
        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       401         15       4954       5135        260        150        218
X3        10
GR     1696      4549.8     1689.9     4882.3     1689.6     4930.1     1689.4     4938.8     1688.3       4954
GR   1678.2         4984    1678.43       5105     1686.3       5135     1688.9     5150.5     1689.9     5169.9
GR   1690.6      5194.3     1692.4       5238     1702.65     5259.6     1697.65     5289.8     1696.65     5434.4
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98

        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       402         33       4949.5     5130.5         97         55         83
GR   1698.3      4363.5     1697.8       4395     1700.3     4407.9     1700.5     4420.2     1696.3     4448.3
GR   1696.3      4524.1     1700.5       4548     1700.5     4560.1     1697.3     4570.7     1697.5     4621.2
GR   1695.3      4641.4     1695.6     4667.7     1696.1     4693.1     1696.6     4724.4     1694.8     4736.9
GR   1692.8      4756.7     1692.8     4799.3     1692.1       4838     1691.6     4872.9     1691.3     4921.1
GR   1690.8      4942.6     1690.9     4949.5     1680.9     4979.5     1680.9     5100.5     1690.9     5130.5
GR   1691.6        5146     1693.8       5156     1695.6     5173.7     1696.3       5192     1705.7       5200
GR   1702.7        5230     1697.7       5255     1696.7     5349.4
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98

        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       404         37       4954.5     5135.5        272        226        252
GR   1695.8      4261.7     1695.6       4281     1699.3     4312.7     1699.3     4360.7     1698.3     4410.3
GR   1698.3      4418.5     1696.6     4444.8     1695.6       4490     1694.8     4532.5     1694.3     4553.8
GR   1695.6      4595.6     1695.6     4670.5     1696.8     4692.9     1696.6     4731.1     1693.8     4756.5
GR   1693.6      4805.3     1693.3     4856.6     1694.1     4885.6     1693.6     4920.8     1692.3     4930.7
GR   1692.2      4954.5     1682.2     4984.5     1682.2     5105.5     1692.2     5135.5     1693.1     5157.7
GR   1695.8      5173.6       1700       5185     1705.7       5202     1705.7       5215     1702.7       5235
GR   1697.7        5268     1697.7       5385     1697.7       5412     1705.2       5426     1702.7       5440
GR   1697.7        5465     1693.7     5487.3
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98
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        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       406         47     4924.2     5105.8        482        281        282
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GR   1698.5     4363.9     1698.5      4419      1699.8     4422.6     1699.3     4461.2     1698.8     4561.1
GR   1696.6       4627     1696.6     4726.1     1696.8     4798.6     1699.8     4805.8     1698.3     4819.2
GR   1696.3     4856.1     1695.8     4884.3     1695.1     4898.1     1693.6     4924.2     1691.3     4935.4
GR   1689.3     4941.9     1686.9     4948.8     1685.4     4955.4     1683.9     4961.1     1683.9     4973.6
GR   1683.9       5000     1683.9     5016.3     1683.9     5043.3     1683.9     5063.1     1683.9       5077
GR   1686.1     5084.7     1688.1     5090.6     1690.1     5096.3     1692.1     5100.6     1693.3     5105.8
GR     1698       5155     1706.7       5182     1706.7       5200       1700       5242       1699       5256
GR     1699       5400     1702.7       5432     1706.5       5450     1702.7       5467       1700       5485
GR     1696       5502       1695       5675     1702.7       5705     1707.7       5720     1707.7       5735
GR     1698       5765     1696.1     5778.2
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98

        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       408         27     4896.5       5077        334        284        303
GR   1697.1     4351.8     1697.3     4445.8     1697.3     4553.3       1697     4626.5     1696.5       4800
GR   1694.6     4896.5     1684.6     4926.5     1684.6     5047.5     1694.6       5077     1694.8     5101.5
GR   1696.8     5123.2       1700       5140     1707.7       5160     1709.2       5170     1707.7       5180
GR   1697.7       5202     1697.7       5355     1707.7       5385     1711.7       5396     1707.7       5413
GR   1697.7       5465     1698.7       5550     1702.7       5715     1709.2       5740     1707.7       5750
GR   1697.7       5775     1694.5     5792.9
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98

        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       410         32     4859.5     5040.5        351        291        318
X3         0                                       5155       1713
GR   1698.5     4431.2       1699     4525.5     1698.8       4630     1698.8     4735.2     1696.8     4774.2
GR   1696.8     4810.7     1696.1     4859.5     1686.1     4889.5     1686.1     5010.5     1696.1     5040.5
GR   1696.3     5076.5     1696.6     5098.2     1697.8     5111.1       1701       5120     1702.7       5130
GR   1707.7       5142     1710.7       5155     1707.7       5165     1702.7       5176     1697.7       5190
GR   1697.7       5350     1702.7       5371     1707.7       5395     1702.7       5431     1697.7       5455
GR   1692.7       5580     1692.7       5620     1697.7       5654     1707.7       5720     1707.7       5746
GR   1697.7       5770     1696.5     5799.9
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98

        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       412         51     4859.5     5060.5        215        218        215
X3         0                                     4795.5     1703.5       5127     1714.5
GR   1691.6     4343.1     1691.6       4362     1691.6     4381.7     1691.6     4419.9     1691.6     4437.1
GR   1691.6     4464.6     1691.1     4480.8     1690.8     4500.5     1690.1     4522.2     1689.8     4535.7
GR   1689.6     4566.8     1688.6       4579     1692.3     4589.6     1694.1     4602.4     1695.8     4614.7
GR     1698     4633.5       1699     4653.7     1699.5     4680.9     1699.5     4706.3     1699.8     4728.9
GR   1700.5     4754.8     1702.3     4774.9     1703.5     4795.5     1700.5     4827.4     1696.3     4841.5
GR   1698.3     4859.5     1686.6     4889.5     1686.6       5000     1686.6     5030.5     1697.3     5060.5
GR   1697.3     5077.9       1699     5084.8     1702.7       5100     1707.7       5110     1712.2       5127

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GR   1707.7       5145     1702.7       5160     1698.7       5170     1696.7       5315     1697.7       5350
GR   1702.7       5382     1707.7       5417     1702.7       5440     1692.7       5542     1697.7       5580
GR   1702.7       5615     1707.7       5680     1710.7       5720     1707.7       5745     1697.7       5766
GR   1697.8     5801.3

NC     0.04       0.04      0.035
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98
        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       414         57     4939.5     5063.1        492        500        497
X3         0                                     4875.3     1705.7       5158     1718
GR   1702.8     4414.2     1702.5     4510.2       1702       4601       1702       4676     1702.5     4750.1
GR   1702.8     4829.4     1702.3     4865.9     1705.7     4875.3     1702.3     4892.9     1701.5     4939.5
GR   1699.8     4944.8     1697.5       4949     1695.1       4954     1693.3     4957.3     1691.1     4959.8
GR   1690.6     4968.2     1689.6       4984     1688.4     4991.1     1688.4       5000     1688.4     5009.7
GR   1690.8     5020.3     1692.1     5033.3     1693.3     5041.3     1695.6     5053.7     1697.3     5058.1
GR   1699.3     5060.9       1701       5062     1703.3     5063.1     1704.2     5082.9       1704     5099.6
GR     1706       5132       1710       5140     1712.7       5151     1715.7       5158     1715.7       5170
GR   1712.7       5180     1707.7       5195     1702.7       5210     1697.7       5280     1691.7       5300
GR   1691.7       5332     1692.7       5340     1697.7       5362     1707.7       5395     1708.7       5400
GR   1707.7       5405     1702.7       5422     1698.7       5435     1697.7       5512     1697.7       5570
GR   1702.7       5625     1707.7       5695     1712.7       5805     1712.7       5825     1707.7       5835
GR   1700.7       5847     1700.7     5900.4
  Rt. bank survey data from Links Golf Course Grading Plan
  Plans by CELLA BARR ASSOC., 03-98

        Rt. bank survey data from Links Golf Course Grading Plan
        Plans by CELLA BARR ASSOC., 03-98
X1       416         48     4948.9     5056.3        351        356        353
X3         0                                     4896.9     1705.5       5162     1718
GR     1703     4389.3     1702.8       4471     1702.8     4561.4     1702.8     4651.3     1702.5     4743.5
GR   1703.5     4832.5     1704.7       4884     1705.5     4896.9     1703.5     4921.8     1703.3     4948.9
GR   1701.3     4952.8       1699     4955.3     1697.1     4957.4     1695.1       4961     1693.1     4964.5
GR   1693.1     4970.7     1693.1       4979     1693.1     4983.8     1692.1       4987     1689.8     4994.8
GR   1689.6       5000     1689.8     5007.8     1690.6     5018.1     1691.3     5034.4     1693.3     5039.7
GR   1695.1     5043.6     1697.1     5046.8       1699     5050.3       1701       5053       1703     5056.3
GR     1703     5093.5     1709.5     5111.5     1706.2     5129.4       1706       5135       1710       5145
GR   1715.7       5162     1712.7       5175     1702.7       5215     1697.7       5269     1692.7       5290
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GR	1692.7	5600	1697.7	5665	1707.7	5723	1717.7	5785	1717.7	5785
GR	1717.7	5875	1702.7	5890	1701.7	5944.4				

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOCIATES, 03/98

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOCIATES, 03/98

X1	418	46	4948.7	5057.3	278	272	274			
X3	0			4582.8	1706.9	5182	1718.5			
GR	1704.2	4234.5	1704	4316.2	1704.7	4351	1706.2	4378	1705.9	4398.4
GR	1705.4	4417.6	1704	4450.3	1704	4518	1703.7	4549.4	1706.9	4582.8
GR	1704	4598.3	1704	4663.3	1705.2	4916.9	1705.2	4948.7	1704	4953.3
GR	1702	4955.1	1699.5	4959.7	1697.8	4961.7	1695.8	4963.5	1693.8	4964
GR	1693.3	4964.8	1693.6	4975.1	1693.3	4978.4	1691.8	4986.3	1691.8	4992
GR	1691.8	5000	1692.3	5009.6	1692.6	5013.8	1693.1	5023.4	1694.8	5028.7

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GR	1696.8	5034	1698.5	5038.6	1701.3	5040.4	1703	5043.2	1704	5057.3
GR	1703.8	5075.3	1703.5	5084.4	1707.7	5099.4	1703.8	5113.9	1706	5147
GR	1710	5155	1716.2	5182	1716.7	5365	1716.7	5605	1714.7	5750
GR	1702.4	5846.2								

X1	420	53	4939	5058.1	547	590	570			
X3	0			4570.3	1708.7	5476	1711.2			
GR	1706.9	4399.9	1706.7	4427.1	1706.9	4465.8	1708.4	4492.1	1708.7	4570.3
GR	1707.7	4648.4	1706.4	4677.9	1706.2	4721.6	1707.9	4746.7	1707.9	4826.9
GR	1705.2	4858.7	1705.2	4892.6	1705.9	4939	1702.7	4948.8	1699.5	4956.6
GR	1697.2	4963.7	1696.5	4970.1	1696.5	4978.3	1696.3	4986.4	1694	5000
GR	1694	5004.2	1694	5023	1698.2	5033.3	1703.2	5042.6	1706.2	5048.2
GR	1707.7	5058.1	1707.7	5073.8	1708.2	5099.6	1707.9	5129.3	1708.9	5168.9
GR	1708.4	5196.4	1708.7	5239.6	1708.7	5270.7	1709.2	5349.2	1709.4	5417
GR	1711.2	5476	1708.9	5540.8	1708.4	5566.7	1707.7	5579.4	1707.2	5585.1
GR	1707.2	5777.7	1710.2	5802.8	1711.4	5827.4	1712.6	5865.7	1710.7	5888.5
GR	1709.7	5902.9	1708.9	5910.9	1707.7	5922.9	1706.9	5936.7	1706.7	5965
GR	1703.7	5975.4	1705.2	5985.2	1706.2	6009.9				

Confluence with Flamingo Wash

Confluence with Flamingo Wash

X1	422	65	4966.9	5126.4	290	330	319			
X3	0			4867.7	1712.4	5202.2	1715.9			
GR	1709.4	4283.7	1708.2	4303.5	1707.9	4347	1709.7	4375.1	1709.7	4443.8
GR	1709.7	4508.5	1709.2	4537.9	1708.4	4563.8	1707.7	4604.3	1709.2	4633.6
GR	1709.4	4707.2	1710.9	4741	1712.4	4765.4	1712.4	4819	1712.4	4867.7
GR	1711.4	4879.2	1709.4	4887.5	1708.7	4893.7	1707.7	4903.2	1706.4	4922.2
GR	1705.7	4939.5	1704.7	4945.8	1703.5	4952.3	1702.5	4960.2	1701.2	4966.9
GR	1700.2	4972.8	1700	4979.9	1700	4987.5	1698	4986.6	1697.2	4988.9
GR	1696.3	4989.8	1695	4990.9	1694.3	4991.5	1694.3	4995.6	1694.3	5000
GR	1694.3	5003.7	1695.3	5006.7	1696.8	5009.4	1697.5	5015.2	1700.2	5021
GR	1702.7	5024.4	1704.9	5028.3	1706.2	5034.3	1708.4	5046.7	1711.2	5056.7
GR	1711.6	5068.3	1710.9	5098.6	1709.4	5105.8	1710.4	5116.4	1709.4	5126.4
GR	1708.9	5148.8	1710.9	5172.5	1714.1	5189.4	1715.9	5202.2	1715.1	5218.9
GR	1713.9	5240.3	1713.1	5257.4	1711.9	5270.8	1712.6	5291.1	1711.9	5302.4
GR	1712.4	5316.1	1710.9	5326.3	1711.6	5375.9	1710.2	5427.4	1709.4	5490.1

QT	4	2200	5100	5993	5993					
X1	424	63	4951.8	5065.6	439	456	458			
X3	0			4687.9	1713.6	5432.3	1714			
GR	1711.4	4176.6	1711.2	4236.3	1709.9	4258	1709.9	4300.9	1711.2	4323.2
GR	1711.6	4391.8	1710.7	4422.4	1710.7	4485.3	1708.7	4509	1708.9	4555.9
GR	1710.9	4574.9	1710.4	4653.4	1712.1	4678	1713.6	4687.9	1711.6	4707.2
GR	1711.4	4726.9	1711.2	4775.4	1711.4	4873.6	1711.4	4916.7	1710.7	4939.2
GR	1709.7	4946.6	1708.4	4951.8	1706.2	4956	1704.4	4960.2	1703.5	4964.4
GR	1703	4969.4	1703	4980.8	1703	4992.8	1702.2	5000	1702.5	5004.9
GR	1702.5	5014.5	1703	5022.5	1703.2	5030.7	1704.2	5037.8	1705.4	5043.6
GR	1706.2	5054.1	1706.9	5065.6	1706.9	5074.3	1706.4	5109.8	1706.2	5122.6
GR	1705.4	5130	1703.2	5137.1	1701.5	5142	1700.2	5146.9	1699.2	5149.9
GR	1699	5154	1699	5158.6	1699.7	5164.3	1701.2	5169.7	1703	5176.1
GR	1704.9	5183.4	1706.4	5190.7	1707.9	5198.5	1709.2	5208.4	1710.2	5228
GR	1710.4	5280.6	1711.2	5349.2	1713.1	5401.9	1714	5432.3	1712.4	5454.2
GR	1710.9	5481.9	1709.7	5505.9	1710.4	5572.9				

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X1	426	71	4954.1	5058.8	247	287	268			
X3	0			4704.3	1714.6	5540.1	1714.9			
GR	1712.4	4239	1710.9	4266.3	1710.7	4310.5	1711.9	4326.7	1711.9	4408.5
GR	1711.4	4414.2	1711.6	4492.1	1709.9	4515	1709.9	4559.5	1711.2	4570.9
GR	1710.9	4654.2	1712.6	4679.4	1714.4	4693.6	1714.6	4704.3	1712.9	4719
GR	1712.4	4762.4	1712.1	4788.8	1711.9	4833.1	1711.9	4866.6	1712.6	4884.5
GR	1712.9	4911.1	1712.9	4930.2	1711.4	4938.1	1709.7	4946	1707.9	4954.1
GR	1706.2	4966.4	1705.4	4975.3	1705.1	4982.6	1705.2	4995.1	1704.9	5000
GR	1705.2	5011.1	1705.1	5023.4	1705.1	5034.4	1706.4	5044.5	1708.2	5051.8
GR	1708.9	5058.8	1709.4	5079.6	1709.7	5102.9	1709.9	5139.7	1710.7	5186.1
GR	1710.2	5199.6	1708.2	5210.5	1705.9	5221.4	1703.7	5229.7	1701.7	5237.9
GR	1701.7	5252.1	1701.5	5276.7	1701.5	5289.3	1703.7	5301.4	1705.9	5312.2
GR	1708.4	5323.9	1711.2	5334.2	1711.6	5343.6	1713.4	5351.2	1713.4	5367.1
GR	1712.4	5377.5	1711.9	5389.9	1711.6	5406.8	1712.1	5446.9	1712.4	5493.5
GR	1712.9	5516.7	1714.1	5528.3	1714.9	5540.1	1714.6	5548.5	1714.1	5562.6
GR	1713.9	5574.9	1712.9	5584.9	1712.4	5604.2	1712.4	5636.1	1712.1	5664.4

GR	1711.6	5695.9								
X1	428	90	4903.8	5187.1	433	522	485			
X3	10									
GR	1708.7	4020.2	1708.7	4044.8	1710.7	4061.8	1710.4	4092.1	1711.2	4105.5
GR	1711.4	4135.6	1712.2	4175.7	1711.9	4211.6	1710.4	4242.5	1710.2	4289
GR	1709.7	4308	1712.2	4319.1	1712.2	4369.1	1713.2	4412.8	1712.2	4434.8
GR	1711.9	4450.9	1712.2	4481.3	1712.2	4533.9	1712.2	4589.3	1712.1	4624.6
GR	1713.4	4637.6	1713.4	4652.7	1710.9	4667.7	1710.9	4737.8	1712.2	4761.6
GR	1712.9	4806.7	1712.9	4869.8	1714.7	4676.1	1715.2	4903.8	1713.2	4914.5
GR	1712.2	4924.8	1709.9	4936.5	1709.5	4950	1708.5	4975.8	1708.2	4985.3
GR	1708.1	4992.7	1707	5000	1707.2	5010	1708.1	5020.3	1708.3	5037.8
GR	1708.5	5051.2	1708.5	5063.3	1708.2	5071.9	1709.2	5080.1	1709.7	5094.7
GR	1710.4	5107.1	1711.2	5122.5	1712.2	5134.3	1714.4	5146.7	1716.2	5187.1
GR	1716.2	5279.7	1715.4	5342.5	1716.2	5374.5	1716.2	5391.1	1713.7	5409
GR	1713.7	5428.5	1714.2	5440.2	1712.4	5449.9	1714.4	5463	1717.9	5492.7
GR	1716.7	5506.3	1716.2	5556.1	1714.2	5575.5	1712.7	5584.5	1710.4	5599.4
GR	1707.2	5622.3	1706	5632.1	1705	5640.8	1704.7	5647.7	1704.7	5660.6
GR	1705.2	5672.6	1705.7	5693.6	1705.7	5702.6	1708.2	5712.8	1709.9	5726.7
GR	1712.1	5737.1	1712.9	5748.9	1713.7	5760.3	1713.9	5789.2	1714.2	5823.1
GR	1714.2	5849.5	1716.1	5887.6	1716.7	5913	1716.7	5945.2	1717.9	5970.8
GR	1719.1	5992.7	1719.4	6010.2	1717.1	6023.3	1716.9	6067.7	1716.2	6083.3
X1	430	71	4899.9	5105.3	140	244	182			
X3	10			4669.1		5150				
GR	1710.7	4100.4	1710.4	4108.5	1711.9	4130.3	1712.2	4145.3	1712.2	4189.4
GR	1712.2	4254.4	1710.7	4278.3	1711.2	4314	1709.9	4345.8	1712.7	4372.2
GR	1712.9	4421.4	1712.7	4463.4	1713.2	4508.5	1712.2	4528.4	1712.4	4562
GR	1714.2	4585.5	1714.2	4626.7	1714.4	4669.1	1713.4	4686	1712.2	4701.1
GR	1712.7	4734.7	1712.4	4761.4	1713.9	4780.1	1713.4	4821.3	1712.9	4859.4
GR	1713.9	4899.9	1713.2	4907.1	1712.2	4913.2	1710.7	4920.4	1710.4	4936.9
GR	1710.4	4951	1710.4	4965.6	1709.9	4976.7	1709.7	4984.7	1709.2	4992.4
GR	1708.5	4997.8	1708	5000	1708	5005.8	1709.5	5011.5	1709.7	5017.1
GR	1709.9	5028.4	1710.4	5038.9	1710.4	5050.5	1710.9	5063.5	1710.9	5077.4
GR	1711.7	5086.2	1713.7	5095.9	1714.4	5105.3	1714.9	5127.7	1715.2	5148.8
GR	1715.7	5164.4	1715.7	5176.3	1714.4	5199.6	1713.7	5214.5	1714.2	5240.2
GR	1714.4	5270	1714.4	5306.1	1715.2	5351.4	1716.2	5404.3	1716.2	5459.6

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GR	1717.1	5502	1717.4	5544.6	1717.6	5586.2	1718.6	5632.4	1718.1	5683.5
GR	1717.9	5719.2	1717.9	5748.4	1716.2	5778.2	1715.4	5795.4	1715.4	5845.2
GR	1716.9	5879.1								
NC	0.03	0.03	0.025	0.3	0.5					
X1	432	48	4916.4	5090.9	538	580	565			
X3	10			4758		5208				
GR	1709.2	3973.8	1710.9	3982.8	1710.4	4018.5	1710.7	4050.7	1709.5	4082
GR	1710.2	4146	1709.9	4232.1	1709	4245.8	1708.5	4311.7	1709	4399.4
GR	1712.2	4474	1711.9	4509.1	1712.2	4558.9	1713.9	4622.2	1714.7	4672.6
GR	1714.2	4712.5	1716.2	4729.1	1716.2	4745.1	1714.2	4754.3	1714.2	4803
GR	1714.2	4874.7	1714.2	4916.4	1713.4	4927.5	1712.5	4935.9	1710.7	4990.5
GR	1709	4995.9	1709	5000	1709	5003.7	1712.1	5053.3	1713.9	5090.9
GR	1714.4	5110.4	1714.7	5124.6	1714.7	5140.7	1715.4	5152.3	1717.9	5172
GR	1718.4	5185	1718.6	5208.4	1717.9	5286.6	1716.2	5310.9	1715.7	5356
GR	1716.4	5375	1718.1	5407.5	1718.4	5458.8	1717.9	5522.1	1717.9	5556.8
GR	1715.2	5591.5	1714.9	5628.3	1716.9	5657.2				
X1	438	59	4935.8	5086.4	465	527	494			
X3	10			4935.8		5086.4				
GR	1713.5	4359.7	1713.7	4416.1	1713.7	4459	1713.9	4512.1	1714.4	4553.5
GR	1716.7	4612.7	1718.9	4641.2	1719.1	4652.8	1718.4	4677.2	1718.4	4696.8
GR	1718.6	4714.2	1721.1	4728.3	1722.6	4738.7	1722.8	4746	1722.1	4755.4
GR	1720.1	4761.6	1717.7	4776.8	1717.4	4791.8	1717.4	4817.2	1717.2	4839
GR	1716.2	4856.1	1715.2	4869.4	1715.4	4879.1	1716.9	4893	1717.4	4908.7
GR	1717.7	4925	1717.4	4926.5	1716.2	4935.8	1714.4	4947.6	1712.7	4957.3
GR	1712.7	4976.2	1712.5	4990.8	1711	5000	1711.2	5003.7	1712.7	5011.2
GR	1712.7	5029.1	1713	5046.3	1710.5	5062.4	1710.5	5064.9	1710.5	5066.8
GR	1712.2	5071.9	1712.8	5073.5	1714.9	5078.4	1716.9	5086.4	1718.2	5110
GR	1718.2	5137.5	1718.4	5170	1717.9	5185.9	1720.4	5209.1	1720.4	5226.3
GR	1720.4	5274.8	1720.6	5362.8	1720.6	5438.3	1720.9	5495.4	1720.6	5564.9
GR	1718.2	5591.7	1718.2	5632.2	1720.4	5657.5	1721.4	5715.6		
X1	439	35	618.4	751.6	28	28	28			
X3	10							1730.03	1730.03	
GR	1714.4	0	1717.4	99.2	1721.1	199.9	1723.3	292.7	1724.6	349.5
GR	1725.8	401	1726.6	443.1	1727.1	499.5	1727.1	560.8	1726.4	618.4
GR	1714.8	618.5	1714.4	631.5	1712	655.7	1711.845	659.1	1711.764	660.9
GR	1711.4	668.9	1711.7	676.5	1710.9	680.7	1710.7	685	1710.9	690.8
GR	1714.2	743.8	1715.338	751.5	1722.5	751.6	1722.4	799.3	1719.6	900.4
GR	1718.9	950.5	1718.2	997.7	1717.7	1100.8	1717.4	1201.1	1717.9	1298.6
GR	1718.4	1399.2	1718.4	1499.7	1719.4	1601.2	1719.9	1701.4	1719.6	1799

Downstream Sahara Ave.
Normal Bridge

Downstream Sahara Ave.
Normal Bridge

X1	439.1	37	618.4	751.5	1	1	1			
X3	10							1730.034	1730.034	
BT	-25	349.5	1724.6	1724.6	401	1725.8	1725.8	443.1	1726.6	1726.6
BT		499.5	1727.1	1727.1	560.8	1727.1	1727.1	618.4	1726.4	1726.4
BT		618.5	1728.42	1714.8	618.5	1728.42	1724.42	659.1	1727.27	1723.27

BT		659.1	1727.27	1711.845	660.9	1727.27	1711.764	660.9	1727.27	1723.27
BT		709.1	1725.9	1721.9	709.1	1725.9	1712.913	710.9	1725.9	1713.046

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BT		710.9	1725.9	1721.9	751.5	1724.75	1720.75	751.5	1722.5	1722.5
BT		799.3	1722.4	1722.4	900.4	1719.6	1719.6	950.5	1718.9	1718.9
BT		997.7	1718.2	1718.2	1100.8	1717.7	1717.7	1201.1	1717.4	1717.4
BT		1298.6	1717.9	1717.9						
GR	1714.4	0	1717.4	99.2	1721.1	199.9	1723.3	292.7	1724.6	349.5
GR	1725.8	401	1726.6	443.1	1727.1	499.5	1727.1	560.8	1726.4	618.4
GR	1714.8	618.5	1714.4	631.5	1712	655.7	1711.845	659.1	1711.764	660.9
GR	1711.4	668.9	1711.7	676.5	1710.9	680.7	1710.7	685	1710.9	690.8
GR	1712.9	709.1	1713.046	710.9	1714.2	743.8	1715.338	751.5	1722.5	751.5
GR	1722.4	799.3	1719.6	900.4	1718.9	950.5	1718.2	997.7	1717.7	1100.8
GR	1717.4	1201.1	1717.9	1298.6	1718.4	1399.2	1718.4	1499.7	1719.4	1601.2
GR	1719.9	1701.4	1719.6	1799						
X1	440	46	709.8	842.95	104	104	104			
X3	10			709.92	1736.424	842.97	1736.424			
BT	-29	349.5	1724.6	1724.6	401	1725.8	1725.8	443.1	1726.6	1726.6
BT		499.5	1727.1	1727.1	560.8	1727.1	1727.1	626.8	1726.3	1726.3
BT		660	1725.6	1725.6	699.8	1725.3	1725.3	709.8	1726.17	1726.17
BT		709.9	1728.42	1719.031	709.9	1728.42	1724.42	750.5	1727.27	1723.27
BT		750.5	1727.27	1713.599	752.3	1727.27	1713.6	752.3	1727.27	1723.27
BT		800.5	1725.9	1721.9	800.5	1725.9	1714.472	802.3	1725.9	1714.572
BT		802.3	1725.9	1721.9	842.9	1724.75	1720.75	842.9	1724.75	1717.944
BT		842.95	1722.5	1722.5	900.4	1719.6	1719.6	950.5	1718.9	1718.9
BT		997.7	1718.2	1718.2	1100.8	1717.7	1717.7	1201.1	1717.4	1717.4
BT		1298.6	1717.9	1717.9	1399.2	1718.4	1718.4			
GR	1714.4	0	1717.4	99.2	1721.1	199.9	1723.3	292.7	1724.6	349.5
GR	1725.8	401	1726.6	443.1	1727.1	499.5	1727.1	560.8	1726.3	626.8
GR	1725.6	660	1725.3	699.8	1726.17	709.8	1719.031	709.9	1716.1	716
GR	1716.1	720	1715.1	726.1	1713.7	733.8	1713.4	740.9	1713.599	750.5
GR	1713.6	752.3	1713.7	755.4	1713.7	765.2	1712	771.4	1711.7	776.4
GR	1713.9	782.6	1713.9	787.5	1714.2	795.6	1714.472	800.5	1714.572	802.3
GR	1715.4	817.2	1715.9	825.8	1717.6	837.6	1717.944	842.9	1722.5	842.95
GR	1719.6	900.4	1718.9	950.5	1718.2	997.7	1717.7	1100.8	1717.4	1201.1
GR	1717.9	1298.6	1718.4	1399.2	1718.4	1499.7	1719.4	1601.2	1719.9	1701.4
GR	1719.6	1799								
X1	440.1	46	709.8	842.95	1	1	1			
X3	10			709.92	1736.424	842.97	1736.424			
GR	1714.4	0	1717.4	99.2	1721.1	199.9	1723.3	292.7	1724.6	349.5
GR	1725.8	401	1726.6	443.1	1727.1	499.5	1727.1	560.8	1726.3	626.8
GR	1725.6	660	1725.3	699.8	1726.17	709.8	1719.031	709.9	1716.1	716
GR	1716.1	720	1715.1	726.1	1713.7	733.8	1713.4	740.9	1713.599	750.5
GR	1713.6	752.3	1713.7	755.4	1713.7	765.2	1712	771.4	1711.7	776.4
GR	1713.9	782.6	1713.9	787.5	1714.2	795.6	1714.472	800.5	1714.572	802.3
GR	1715.4	817.2	1715.9	825.8	1717.6	837.6	1717.944	842.9	1722.5	842.95
GR	1719.6	900.4	1718.9	950.5	1718.2	997.7	1717.7	1100.8	1717.4	1201.1
GR	1717.9	1298.6	1718.4	1399.2	1718.4	1499.7	1719.4	1601.2	1719.9	1701.4
GR	1719.6	1799								

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X1	441	62	4903.8	5097.5	31	31	31			
X3	10							1728.9	1728.9	
GR	1718.9	4259.8	1718.9	4302.3	1716.2	4324.1	1713.9	4350.1	1716.2	4369.2
GR	1716.4	4381.9	1714.7	4413.7	1714.4	4456.9	1713.5	4496.4	1714.9	4525.1
GR	1716.1	4593.7	1717.4	4613.3	1717.2	4639	1716.1	4659.3	1716.2	4671.3
GR	1716.9	4685	1718.4	4708.4	1718.9	4734.5	1720.1	4767.8	1720.1	4802.2
GR	1721.4	4827.2	1721.6	4843.8	1721.6	4861.8	1720.1	4876.3	1718.9	4888.1
GR	1717.3	4902.5	1717.2	4903.8	1716.2	4920.7	1714.9	4936.5	1713.9	4953.2
GR	1713.2	4968.2	1712.7	4986.2	1712.7	4994.1	1711.7	4997.7	1711.7	5000
GR	1711.7	5002.3	1712.5	5006.7	1713.5	5020.3	1713.7	5039.5	1715.2	5059.1
GR	1716.4	5079.4	1716.7	5096.5	1716.7	5097.5	1716.9	5123.6	1717.2	5142
GR	1717.7	5163.3	1720.1	5179.9	1720.4	5215.1	1719.9	5276.4	1718.4	5295
GR	1716.9	5307	1716.7	5344.4	1719.1	5359.7	1720.1	5376.5	1720.1	5404
GR	1720.6	5452.8	1721.1	5490.7	1721.1	5538.9	1721.1	5585.4	1721.6	5630.6
GR	1721.6	5669.5	1721.1	5698.6						
NC	0.03	0.15	0.025	0.1	0.3					
X1	442	13	66	520	497	447	466			
X3	10			66	1725	644	1725			
GR	1722	0	1720	66	1716	255	1714.2	268	1712.4	310
GR	1712.4	315	1712.5	320	1714.2	337	1716	370	1720	470
GR	1721	520	1724	1062	1724	1407				
NC	0.03	0.03	0.025							
X1	444	87	649.77	801.43	314	270	299			
X3	10			492.09	1723.1	991.72	1722.61			
GR	1718.1	0	1718.86	224.52	1720.83	349.36	1720.83	349.63	1720.83	349.95
GR	1720.8	350.29	1720.83	350.64	1720.84	350.96	1720.11	362.81	1720.11	363.03
GR	1719.9	403.33	1719.87	403.48	1721.1	418.61	1721.11	418.94	1723.09	491.94
GR	1723.1	492.09	1723.08	492.18	1722.84	514.09	1721.85	528.3	1721.85	528.41
GR	1720.4	547.89	1720.86	575.25	1720.86	575.35	1720.87	598.81	1720.13	613.19
GR	1720.1	624.05	1720.1	624.09	1720.1	634.43	1718.89	649.77	1716.66	663.57
GR	1716.7	663.57	1716.59	666.79	1716.17	685.63	1716.17	685.63	1716.17	699.31
GR	1716.2	699.32	1716.2	712.56	1716.2	712.57	1716.1	721.32	1716.1	721.33

GR	1713.9	731.94	1713.95	731.95	1713.94	731.96	1713.94	731.97	1714.68	742.37
GR	1714.7	742.38	1715.68	751.8	1715.68	751.84	1716.43	764.47	1716.43	764.5
GR	1716.4	776.07	1716.67	786.5	1716.67	786.57	1717.66	794.06	1717.67	794.09
GR	1718.9	801.43	1719.15	810.08	1719.16	810.12	1719.16	810.18	1719.65	830.21
GR	1719.6	830.26	1720.11	859.36	1720.12	859.5	1720.32	884.61	1720.32	884.86
GR	1720.4	906.24	1720.89	928.82	1720.89	929.03	1721.63	950.34	1721.88	966.41
GR	1721.9	966.79	1722.61	990.53	1722.61	991.44	1722.61	1060.15	1720.42	1075.69
GR	1719.7	1091.13	1719.66	1091.44	1719.65	1091.67	1719.42	1128.47	1721.6	1145.49
GR	1721.6	1146.38	1721.48	1182.56	1720.69	1420.41	1720.61	1453.08	1721.82	1696.29
GR	1722.3	1836.19	1722.33	1879.56						
X1	446	91	565.43	731.96	410	360	390			
X3	10			454.6		872.14				
GR	1720.9	0	1720.96	1.95	1720.76	14.81	1721.16	140.85	1721.83	164.96
GR	1721.9	218.73	1721.85	226.04	1723.18	236.49	1724.44	298.22	1724.2	301.94
GR	1724.1	314.65	1723.69	357.47	1724.06	362	1723.74	381.35	1724.31	402.89
GR	1723.8	409.64	1724.5	419.81	1725.04	437.03	1724.97	443.25	1725.34	454.61
GR	1725.1	458.59	1724.64	464.08	1724.71	497.67	1724.84	505.03	1724.83	511.39
GR	1724	541.31	1723.79	545.03	1723.78	547.84	1722.15	562.81	1722.19	565.43

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GR	1721.8	569.34	1720.75	585.89	1720.19	589.32	1719.83	596.12	1719.33	601.36
GR	1718.7	609.58	1718.61	614.87	1718.62	622.45	1718.62	628.7	1718.06	638.78
GR	1718.1	638.88	1718.26	645.12	1718.24	647.15	1717.48	655.5	1716.98	657.93
GR	1716.6	661.76	1715.85	666.02	1715.67	669.59	1715.83	671.92	1717.75	675.66
GR	1718	677.76	1717.8	691.76	1717.96	694.51	1718.55	700.96	1718.55	703.44
GR	1716.6	705.7	1719.45	722.23	1719.66	723.8	1721.38	730.45	1721.64	731.96
GR	1721.7	733.75	1722.92	741.72	1723.1	783.35	1723.2	757.32	1722.02	767.64
GR	1722.1	773.32	1722.94	794.8	1722.97	799.46	1723.28	833.72	1725.29	837.37
GR	1723.4	841.26	1723.41	866.12	1723.53	869.54	1723.57	872.15	1723.14	908.33
GR	1723.2	911.74	1723.05	989.35	1723.05	996.48	1722.81	998.09	1722.73	999.74
GR	1721.9	1019.83	1720.99	1034.4	1720.97	1037.73	1721.16	1039.27	1721.15	1090.81
GR	1721.1	1109.98	1721.08	1112.9	1721.19	1142.87	1722.86	1476.46	1723.53	1682.79
GR	1723.6	1730.97								
X1	448	45	4912.6	5073.7	629	560	595			
X3	10			4779.2		5167.2				
GR	1723.9	4653.6	1725.8	4679.7	1726.3	4746.3	1726.3	4766.3	1726.8	4779.3
GR	1726.3	4794.5	1725.8	4825.9	1725.6	4852.7	1725.3	4879.3	1724.8	4896.3
GR	1724.8	4912.6	1723.8	4926.8	1722.4	4934.4	1720.6	4943.2	1720.1	4959.5
GR	1720.2	4975.8	1718.9	4989.7	1717.4	4997.7	1717.4	5000	1717.4	5002.8
GR	1719.6	5006.6	1720.2	5020.8	1720.1	5035.8	1720.6	5046.3	1721.9	5063.3
GR	1723.8	5073.7	1724.3	5091	1726.3	5104.7	1729.3	5120.9	1730.3	5131.3
GR	1730.3	5149.1	1731	5160.9	1730.8	5183.5	1729	5200.7	1730	5215.3
GR	1730.8	5225.3	1729	5241.2	1729.6	5254.4	1728.3	5272.4	1726.8	5319.4
GR	1725.8	5366.4	1726.1	5415.3	1725.6	5458.4	1724.8	5509.4	1724	5547.7
X1	450	51	4912.9	5079.3	540	506	527			
X3	0			4838.4		5121.8				
GR	1724.1	4580	1724.6	4679.6	1724.6	4647.4	1726.8	4668.4	1728.3	4750.6
GR	1728.5	4770	1728.8	4806	1731	4813.8	1732.5	4827	1732.3	4859.3
GR	1729	4856.8	1726.8	4867.1	1726.3	4885.9	1725.3	4902.3	1726.1	4912.9
GR	1725.1	4925.5	1723.1	4934.3	1721.9	4946	1721.6	4962.4	1720.9	4977.2
GR	1720.1	4990.3	1719.1	4996.3	1719.1	5000	1719.1	5001.9	1720.4	5005.1
GR	1721.6	5016.8	1721.4	5026.4	1722.5	5047.5	1723.6	5064.9	1726.1	5075.3
GR	1726.3	5086.2	1729	5094.6	1730	5104.1	1731.3	5118.3	1731.3	5142.6
GR	1730.5	5167.3	1729.3	5179.3	1726.6	5188.2	1726.6	5196	1726.8	5216.9
GR	1728.1	5228.9	1728.1	5242.4	1728.1	5255.5	1728.1	5290.5	1728.3	5360.1
GR	1726.8	5391.3	1731.3	5419.7	1730.8	5508.7	1726.3	5546.6	1726.6	5585.4
GR	1726.3	5617.9								
X1	452	60	4875.9	5101.6	544	493	517			
X3	10			4828.9	1731.3	5230.4	1732			
GR	1728.8	4349.3	1730.3	4370.2	1732.8	4445.7	1732.8	4487	1732.8	4497.9
GR	1732.5	4544.4	1732.2	4582.9	1731	4628.1	1730.3	4648.3	1730.3	4699
GR	1731.3	4729.9	1729.8	4796.8	1729	4801.6	1729.8	4803.1	1730.3	4815.1
GR	1731.3	4825.5	1731	4859.6	1730.8	4875.9	1729.3	4895.7	1728.3	4911.3
GR	1727.6	4919.5	1725.8	4929.5	1724.5	4939.6	1722.6	4949.8	1722.6	4959.9
GR	1721.6	4970.4	1721.4	4980.9	1721.4	4989.3	1719.4	4997.5	1719.4	5000
GR	1719.4	5001.6	1720.4	5006.2	1721.6	5015.9	1721.6	5032.4	1721.9	5044.5
GR	1723.6	5059.7	1725.3	5068.5	1727.3	5080.2	1729	5090.5	1730	5101.6
GR	1730.3	5124.1	1730	5151.9	1730.3	5172.7	1730	5188	1729.8	5203.1
GR	1731.3	5211.5	1732	5230.2	1731.5	5269.5	1731	5307.9	1727.9	5337.5
GR	1727.9	5384.5	1731.3	5414.9	1732	5468.3	1732.3	5509.2	1732.1	5549.3
GR	1731.5	5593.1	1731.3	5679.9	1727.9	5696.5	1726.6	5711.9	1727.6	5737.7

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X1	454	46	4908.3	5087.3	514	478	500			
X3	10			4822.3	1734	5335	1733			
GR	1730.3	4598.9	1730.3	4636.4	1732.3	4666.4	1732.1	4736.5	1732.8	4750.9
GR	1733	4762	1731.8	4773.6	1731.5	4793.9	1734	4822.3	1731.5	4846.1
GR	1731	4875.1	1730.5	4894.1	1729.8	4908.3	1727.8	4923.2	1726.3	4934.5
GR	1723.6	4947.3	1722.4	4956.8	1721.6	4970.4	1721.6	4979.9	1721.4	4985.6
GR	1720.1	4994.4	1720.1	5000	1720.1	5003	1721.6	5011.7	1721.6	5023.9
GR	1722.4	5037.9	1723.3	5049.4	1725.1	5061.1	1727.6	5071.1	1730	5079
GR	1731.5	5087.3	1731.8	5102.2	1732.3	5123.8	1732	5169.6	1732.5	5220.6
GR	1732.5	5276.1	1733	5333.9	1730.3	5356.1	1730.5	5404.5	1732.8	5432.7
GR	1733.5	5503.7	1732.1	5528.3	1731.5	5614.3	1728.1	5636.7	1728.6	5678.3

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GR     1730     5696.1

X1      456       43     4900     5098.3      546      475      510
X3       10                       4671.7   1736.5   5258.5     1734
GR   1734.7   4568.8   1733.3   4607.2   1736.5   4671.1   1734.7   4754.4   1733.7   4782.8
GR   1732.3   4809.3   1732.5   4841.5   1732.3     4881     1733     4900   1731.5   4913.2
GR     1729   4923.1   1726.1   4937.1   1724.2   4956.3   1722.4   4978.4   1721.9   4989.1
GR   1720.4   4994.3   1720.4     5003   1720.4   5002.4   1722.1   5005.9   1722.8   5021.5
GR   1723.6   5035.2   1724.6   5048.8   1726.1   5062.9   1729.3   5076.4   1731.5     5086
GR   1732.2   5098.3   1732.2     5124   1732.8   5142.7   1732.8   5172.4   1732.8   5213.1
GR     1734   5258.3   1732.8   5358.7   1731.8   5370.6   1731.8     5418   1732.8   5445.8
GR   1732.5   5505.2   1732.3     5522   1730.8     5538     1731   5567.5   1730.5   5616.6
GR     1730   5632.4   1729.8   5670.2   1731.5   5699.9

NC     0.05     0.05     0.04
X1      458       50     4895.3   5101.1      396      384      392
X3       10                                 5186.9   1740.2
GR   1739.4   4192.8   1738.9   4273.4   1736.2   4353.3   1736.5   4433.3   1736.2   4513.4
GR   1736.5   4593.4   1736.2   4673.3   1736.7   4716.4   1734.2   4753.3   1735.7   4826.5
GR   1735.7   4895.3   1734.7   4908.5   1731.5   4921.6   1728.3   4932.7   1725.3   4947.4
GR   1722.6   4958.1   1722.1   4971.2   1722.1   4986.3   1720.6     4991   1720.6     5000
GR   1720.6   5003.4   1721.6   5010.1   1722.6   5027.9   1723.3     5042   1724.6   5059.7
GR   1726.6   5069.8   1729.5   5076.4   1731.3   5080.8   1734.2   5085.4   1734.7     5093
GR   1736.2   5101.1   1738.5   5131.4   1740.2   5185.5   1739.9   5200.7   1736.5   5233.3
GR     1735   5276.9   1734.5   5364.8     1733   5383     1733     5426   1734.2   5450.5
GR     1735   5510.5     1735   5530.9     1733   5536.8     1733     5553     1733   5616.4
GR   1730.6   5641.8   1730.8     5689   1732.8   5713.2     1733   5782.3     1733   5782.5

NC                                 0.3      0.5
X1      460       48     4908.3   5125.7      399      355      357
X3       10                       4843     1738   5243.5   1737.7
GR   1738.3   4158.6   1737.3   4230.1   1736.8   4309.5   1736.6   4388.5   1736.8   4467.5
GR   1736.8   4546.5   1736.3   4625.5   1736.2   4704.6   1734.3   4783.5   1734.3   4806.1
GR   1736.8   4819.4     1738     4845   1736.8   4862.5   1736.4     4886   1735.8   4906.3
GR   1732.6     4925   1728.6   4940.2   1724.2   4967.8   1723.4   4984.9   1721.7     4996
GR   1721.7     5000   1721.7   5005.4   1723.7   5014.5   1724.2   5057.7   1728.1     5071
GR   1730.1   5086.1   1733.8   5094.8   1734.3   5106.7   1736.1   5125.7   1737.1   5131.8
GR   1737.5   5176.6   1737.7   5243.5     1735   5271.7     1735   5293.3   1734.5   5314.4
GR   1736.7   5338.6   1736.7   5400.5     1736   5432.5   1734.7   5443.6   1734.7   5520.6
GR   1732.3   5543.9   1732.8   5573.5   1730.3   5594.6   1733.7   5619.9   1734.5   5684.1
GR   1734.5   5709.9     1733   5716.7     1733   5731.4
1
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X1      468       36     4913.3   5084.9      261      286      274
X3       10
GR   1736.5   3970.8     1738   4063.2     1738   4152.2   1738.3   4241.2   1738.5   4330.2
GR   1739.9   4419.2   1739.3   4508.2   1739.5   4589.4   1739.3   4694.6   1738.3   4775.2
GR   1737.9   4826.9     1738   4864.2   1736.6   4881.3   1735.6   4913.3   1732.1   4930.3
GR   1728.1   4954.1   1725.4   4969.6   1724.2   4985.1     1722   4993.6     1722     5000
GR     1722   5004.4   1723.4   5019.1   1724.2   5040.7   1728.1   5057.1   1732.1   5072.4
GR   1736.1   5084.9   1736.1   5094.4   1737.3   5107.5   1738.5   5131.1     1738   5220.0
GR   1737.5   5309.1   1737.1   5396.1   1736.9   5487.2   1735.8   5576.2   1735.5   5665.0
GR   1734.8   5752.6

X1    468.9       33   1073.3     1269       47       47       47
X3       10
GR   1738.1      640   1738.1      693.4   1737.2      792.5   1737.4      891.5   1737.2      990.5
GR   1737.2   1075.2   1736.5   1082.9     1736     1091   1733.4   1101.6     1732   1108.9
GR     1729   1122.1   1725.5   1133.6     1729   1142.3   1724.5   1151.4   1721.6   1161.9
GR   1721.6   1170.2   1723.6   1178.8   1723.8     1186   1723.6   1190.8   1724.1   1206.3
GR   1725.5     1218     1728   1227.7   1731.7   1238.9   1735.2   1252.1   1736.7     1269
GR   1736.2   1287.5   1736.2   1386.6   1736.1   1485.5   1736.1   1584.5   1734.4   1683.5
GR   1734.4   1782.5   1734.4   1881.6   1733.9   1980.6
   Downstream Nellis Blvd
   Normal Bridge

         Downstream Nellis Blvd
         Normal Bridge
X1      469       40   1096.25   1235.75        1        1        1
X3       10
BT       -33      661   1738.1   1738.1      693.4   1738.1   1738.1      792.5   1737.2   1737.2
BT             891.5   1737.4   1737.4      990.5   1737.2   1737.2   1096.24   1737.2   1737.2
BT           1096.25   1741.31   1737.2     1117.1   1741.27   1733.17   1117.1   1741.27   1730.136
BT           1118.6   1741.27   1729.8     1118.6   1741.27   1733.17   1149.2   1741.14   1733.04
BT           1149.2   1741.14   1724.621   1150.7   1741.14   1724.538   1150.7   1741.14   1733.04
BT           1181.3   1741.01   1732.91    1181.3   1741.01   1725.669   1182.8   1741.01   1723.7
BT           1182.8   1741.01   1732.91    1213.4   1740.88   1732.78   1213.4   1740.88   1724.95
BT           1214.9   1740.88     1725.1   1214.9   1740.88   1732.76   1235.75   1740.73   1732.63
BT           1235.75   1736.7   1736.7     1287.5   1736.2   1736.2   1386.6   1736.2   1736.2
BT           1485.5   1736.1   1736.1     1584.5   1736.1   1736.1   1683.5   1734.4   1734.4
BT           1782.5   1734.4   1734.4     1881.6   1734.4   1734.4   1980.6   1733.9   1733.9
GR   1738.1      661   1738.1      693.4   1737.2      792.5   1737.4      891.5   1737.2      990.5
GR   1737.2   1096.24   1737.2   1096.25   1733.2   1096.25   1733.154   1101.6     1732   1108.9
GR   1730.1   1117.1   1729.8   1118.6     1729   1122.1   1725.5   1133.6     1725   1142.3
GR   1724.6   1149.2   1724.5   1150.7   1724.5   1151.4   1721.6   1161.9   1721.6   1170.2
GR   1723.6   1178.8   1723.7   1181.3   1725.7   1182.8   1723.8     1186   1723.6   1190.8
GR   1724.1   1206.3     1725   1213.4   1725.1   1214.9   1725.5     1218     1728   1227.7
GR   1732.6   1235.75   1736.7   1235.75   1736.2   1287.5   1736.2   1386.6   1736.1   1485.5
GR   1736.1   1584.5   1734.4   1683.5   1734.4   1782.5   1734.4   1881.6   1733.9   1980.6
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X1	470	46	1111.85	1251.35	109	109	109			
X3	10									
BT	-33	711.5	1737.2	1737.2	792.5	1737.2	1737.2	891.5	1737.4	1737.4
BT		990.5	1737.2	1737.2	1004.06	1736.811	1736.811	1111.84	1736.81	1733.21
BT		1111.85	1741.31	1733.21	1132.7	1741.27	1733.17	1132.7	1741.27	1728.1
BT		1134.2	1741.27	1727.828	1134.2	1741.27	1733.17	1164.8	1741.14	1733.04

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BT		1164.8	1741.14	1724.2	1166.3	1741.14	1723.931	1166.3	1741.14	1733.04
BT		1196.9	1741.01	1732.91	1196.9	1741.01	1723.596	1198.4	1741.01	1723.696
BT		1198.4	1741.01	1732.91	1229	1740.88	1732.78	1229	1740.88	1724.1
BT		1230.5	1740.88	1724.217	1230.5	1740.88	1732.78	1251.36	1740.73	1732.63
BT		1251.36	1736.23	1732.63	1488.7	1736.23	1734.9	1497.6	1736.23	1734.9
BT		1528.81	1736.23	1736.23	1584.5	1736.1	1736.1	1683.5	1734.4	1734.4
BT		1782.5	1734.4	1734.4	1881.6	1734.4	1734.4	1980.6	1733.9	1733.9
GR	1737.2	711.5	1737.2	792.5	1737.4	891.5	1737.2	990.5	1736.811	1004.06
GR	1736.8	1004.06	1733.21	1111.84	1733.21	1111.85	1730.5	1117.9	1729.9	1120.5
GR	1727.5	1123.9	1728.3	1131.7	1728.1	1132.7	1727.828	1134.2	1729.3	1137
GR	1726.5	1145	1725.5	1156.2	1724.2	1164.8	1723.931	1166.3	1729.9	1166.5
GR	1723.6	1172	1722.6	1176.1	1722.6	1182.8	1722.6	1187	1723.5	1190.5
GR	1723.6	1196.9	1723.696	1198.4	1724.2	1205.9	1724.1	1218.9	1724.1	1229
GR	1724.1	1229.5	1724.217	1230.5	1724.8	1235.5	1726.5	1239.2	1726.5	1242.6
GR	1732.6	1251.35	1732.6	1251.36	1734.9	1488.7	1734.9	1497.6	1736.23	1528.81
GR	1736.2	1528.81	1736.1	1584.5	1734.4	1683.5	1734.4	1782.5	1734.4	1881.6
GR	1733.9	1980.6								

X1	470.1	47	1111.95	1251.36	1	1	1			
X3	10			1111.85	1736	1251.45	1735			
GR	1738.1	675	1738.1	693.4	1737.2	792.5	1737.4	891.5	1737.2	990.5
GR	1736.8	1004.06	1736.8	1004.06	1733.21	1111.84	1733.21	1111.85	1730.5	1117.9
GR	1729.7	1120.5	1727.5	1123.9	1728.3	1131.7	1728.1	1132.7	1727.828	1134.2
GR	1727.3	1137	1726.3	1145	1725.5	1156.2	1724.2	1164.8	1723.931	1166.3
GR	1723.9	1166.5	1723.6	1172	1722.6	1176.1	1722.6	1182.8	1722.6	1187
GR	1723.3	1190.5	1723.6	1196.9	1723.696	1198.4	1724.2	1205.9	1724.1	1218.9
GR	1724.1	1229	1724.1	1229.5	1724.217	1230.5	1724.8	1235.5	1726.5	1239.2
GR	1726.5	1242.6	1732.6	1251.35	1732.6	1251.36	1734.9	1488.7	1734.9	1497.6
GR	1736.2	1528.81	1736.2	1528.81	1736.1	1584.5	1734.4	1683.5	1734.4	1782.5
GR	1734.4	1881.6	1733.9	1980.6						

NC	0.05	0.05	0.03							
X1	471	31	4918.1	5083.4	41	41	41			
X3	10			4779.1	1737.6	5401.5	1737.5			
GR	1737.5	4556.5	1737.3	4621.5	1737.3	4686.6	1737.8	4751.6	1737.8	4779.1
GR	1736.1	4832.8	1734.8	4875.6	1736.1	4918.1	1732.1	4935	1728.4	4949.5
GR	1725.4	4962.2	1725.2	4975.5	1722.6	4992.4	1722.6	5000	1722.6	5002.6
GR	1723.9	5011.5	1725.4	5043.1	1729.6	5056.6	1732.8	5073.2	1735.6	5083.4
GR	1736.2	5141.5	1736.3	5206.5	1736.8	5271.5	1737.1	5336.5	1737.5	5401.5
GR	1737.1	5466.5	1736.6	5531.5	1736.5	5596.5	1736.1	5661.5	1735.3	5726.5
GR	1734.6	5791.7								

NC				0.3	0.3					
X1	472	40	4926.6	5079.5	284	398	340			
X3	10									
GR	1739.5	4434.9	1738.5	4492.9	1736.6	4518.1	1737.1	4533.2	1738.5	4589.6
GR	1739	4610.1	1739.3	4656.5	1739	4704	1739.5	4739	1739.3	4794.3
GR	1738.5	4822.3	1738	4884.7	1736.8	4889.2	1736.3	4912.8	1737.6	4926.8
GR	1734.1	4942.4	1730.1	4954.7	1726.4	4967.3	1725.9	4985.2	1725.7	4997.8
GR	1722.7	5008	1722.7	5006.3	1724.9	5019.1	1726.7	5036.8	1730.6	5046.4
GR	1734.1	5064.5	1737.1	5079.5	1736.8	5128.4	1737.8	5163.4	1738	5223.4
GR	1738.3	5275.5	1738.5	5364.5	1738.8	5397.4	1739	5439.8	1739	5480.1
GR	1738	5515.7	1738.5	5561.7	1737.1	5580.2	1739.5	5606.3	1737.1	5634.1

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NC				0.3	0.5					
X1	474	41	4926.5	5064.5	360	420	392			
X3	10									
GR	1739.3	4365.6	1738.3	4402	1738.5	4420	1739.3	4436.6	1740.3	4494.9
GR	1740.8	4516	1741	4576	1741.3	4627.9	1740.1	4644.4	1740.8	4654.3
GR	1740.8	4723.1	1740.1	4738.4	1741	4753.3	1740.5	4807.1	1740.1	4829.4
GR	1739.5	4870.7	1738.3	4892	1738.3	4926.5	1735.1	4946.6	1731.3	4960.6
GR	1727.2	4971.5	1726.9	4984.8	1724.7	4994.4	1724.7	5000	1724.7	5005
GR	1726.4	5017.6	1728.4	5033.5	1731.8	5046	1735.8	5054.6	1739.5	5064.3
GR	1740.2	5078.9	1740.5	5126.3	1740.3	5190.1	1739.8	5272.5	1738	5303.4
GR	1738.3	5323.6	1738.8	5347.6	1738.3	5371.6	1740	5394.6	1740.2	5465
GR	1740.3	5496.4								

X1	478	32	4913.8	5088.4	386	456	415			
X3	10									
GR	1739.8	4328.8	1739.3	4374.5	1741	4402.8	1740.1	4675.4	1740.1	4721.3
GR	1740.5	4728.4	1740.3	4913.8	1738.8	4932.7	1736.1	4939.8	1731.8	4952.1
GR	1728.1	4966.6	1726.4	4988.3	1724.9	4995.4	1724.9	5000	1724.9	5010.6
GR	1727.9	5027.5	1728.4	5041.6	1732.3	5047.1	1736.3	5056.7	1740.3	5072.9
GR	1741.5	5088.4	1741.5	5146.1	1741	5231.1	1740.8	5248.2	1740.5	5298.9
GR	1741.3	5326.1	1742	5367.1	1742.7	5607.1	1742.7	5687.1	1742.2	5767.1
GR	1743	5847.1	1742.7	5929.3						

Downstream Charleston Blvd.
Special Bridge

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         Downstream Charleston Blvd.
         Special Bridge
X1     479.1        45      4907      5072        44        44        44
X3        10
GR    1740.8      4331    1740.3    4410.6    1740.3    4490.6    1739.8    4570.6    1739.8    4650.6
GR    1739.5    4730.6      1739    4810.6    1738.8    4890.6    1738.5      4907      1737    4910.3
GR    1734.6    4923.1    1732.6    4927.1  1732.279      4928    1729.6    4935.5    1728.4    4943.1
GR    1728.3  4951.25  1728.292  4952.75    1728.2    4960.9    1726.6    4972.3    1725.7    4978.2
GR    1725.5  4983.25  1725.46  4984.75    1724.9      5000    1725.7    5005.7  1726.327  5015.25
GR    1726.4  5016.75    1726.6    5019.4    1729.1    5033.5    1731.8      5042  1733.275  5047.25
GR    1733.7  5048.75  1738.933      5072    1739.5    5076.8    1740.7    5119.5    1740.3    5129.9
GR    1740.3    5210.6    1740.5    5290.6    1740.5    5370.6    1740.8    5450.6      1741    5530.6
GR    1740.5    5610.6      1741    5690.6    1741.8    5770.6      1742    5850.6    1742.2    5930.2

SB      1.05      1.56       2.6       144       100         6       600       1.5    1725.2    1725.2
X1       480        49    4910.3    5090.9       102       102       102
X2                             1      1731    1741.5                          1.33
X3        10                        4885      1742
GR    1740.8      4331    1740.3    4410.6    1740.3    4490.6    1739.8    4570.6    1739.8    4650.6
GR    1739.5    4730.6      1739    4810.6    1740.5    4885.1  1739.872      4907    1739.8    4909.5
GR    1739.5    4910.3  1738.626    4912.34    1736.5    4917.4    1734.8      4928      1733    4939
GR    1729.6    4944.9      1729    4951.25  1728.866    4952.75    1728.6    4955.6    1728.6    4968.2
GR    1726.6    4980.4    1726.2    4983.25  1725.966    4984.75    1725.2      4990    1725.2      5000
GR    1726.4    5009.3      1727    5015.25  1727.191    5016.75    1727.6    5020.6    1727.4    5034.8
GR    1727.1  5047.25    1727.1    5047.6  1727.251    5048.75    1727.9    5053.7    1730.3    5059.2
GR    1734.8      5072  1739.497    5087.01      1741    5090.9      1742    5110.8    1740.3    5210.6
GR    1740.5    5290.6    1740.5    5370.6    1740.8    5450.6      1741    5530.6    1740.5    5610.6
GR      1741    5690.6    1741.8    5770.6      1742    5850.6    1742.2    5930.2
1
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X1       481        51    4925.6    5086.7        32        32        32
X3        10
GR    1740.3    4346.5    1739.3      4369    1740.8    4395.7    1741.5    4442.7    1740.8    4473.5
GR    1740.5    4530.6    1740.8      4552    1741.5      4573    1742.2    4609.6    1741.8    4624.6
GR    1740.5    4634.9    1740.8    4670.6    1741.5    4703.8      1743    4771.8    1742.2    4824.4
GR    1741.8    4874.1    1741.8    4911.3    1740.3    4920.3    1741.5    4925.6    1737.2    4933.4
GR    1733.3    4943.6    1729.6    4950.6    1728.1    4977.3    1725.2    4993.7    1725.2      5000
GR    1725.2      5006    1727.7    5020.3    1727.7    5053.3    1730.9    5058.1    1735.1    5066.1
GR      1739    5071.3      1742    5076.3    1742.7    5086.7    1742.5    5154.1    1743.2    5214.4
GR    1739.5    5238.2    1740.1      5287    1743.5      5295    1744.2    5339.4      1745    5406.5
GR    1745.2    5456.3      1746    5514.6    1747.2    5565.9    1748.2    5673.4    1746.9    5739.9
GR    1746.9    5764.4    1744.7    5788.3    1744.7    5824.9    1744.2    5873.4    1741.5      5903
GR      1741    5922.8

NC                                      0.1       0.3
X1       482        41    4921.9    5075.4       205       205       205
X3        10
GR    1741.3    4289.2    1740.8    4327.3    1740.8    4365.2    1740.5    4401.8    1741.8    4441.2
GR    1742.2    4593.2    1740.8    4652.3    1741.5    4668.8    1741.8    4710.6    1742.5    4745.2
GR      1743      4797      1744    4888.7    1744.2    4921.8      1740    4929.5    1736.1    4939.4
GR    1732.1    4946.3    1729.1      4949    1728.6    4973.2    1728.6    4986.4    1725.2    4994.5
GR    1725.2      5000    1725.2    5007.1    1728.5    5017.1    1731.1      5056    1735.1      5064
GR      1739    5070.3      1743    5075.4      1743    5115.8      1743    5169.9    1740.5      5195
GR    1740.8    5219.9    1740.8    5242.9    1743.5    5256.3    1744.2    5359.2    1745.5    5446.5
GR    1746.7    5539.9    1741.5    5640.9    1746.9    5745.3    1746.7    5785.1      1745    5793.4
GR      1745    5808.4
1
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T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Duck Creek to Charleston Blvd.
T2      Nolte and Associates, Jan 1998
T3      Boundary condition: WSEL at XS306 from LVDUCK.DAT

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                 3                                                          5500   1571.71

J2  NPROF      IPLOT     PREVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      2                   -1                                                -6

1
    22JAN99       15:19:49                                                                    PAGE   30


T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Duck Creek to Charleston Blvd.
T2      Nolte and Associates, Jan 1998
T3      Boundary condition: WSEL at XS306 from LVDUCK.DAT

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

                 4                                                          7100   1572.44

J2  NPROF      IPLOT     PREVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      3                   -1                                                -6

1
    22JAN99       15:19:49                                                                    PAGE   31
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T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Duck Creek to Charleston Blvd.
T2      Nolte and Associates, Jan 1998
T3      Boundary condition: WSEL at XS306 from LVDUCK.DAT

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
                5                                                         14300   1574.14

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15                  -1                                                -6
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THIS RUN EXECUTED 22JAN99 15:19:55

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**********************************
 HEC-2 WATER SURFACE PROFILES

 Version  4.6.0;  February 1991
**********************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Boundary condition: WSEL

SUMMARY PRINTOUT TABLE  150
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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	306.000	.00	.00	.00	1561.10	2500.00	1568.33	.00	1568.41	7.78	2.25	1111.87	896.05
	306.000	.00	.00	.00	1561.10	5500.00	1571.71	.00	1571.77	4.28	2.13	3123.30	2656.33
	306.000	.00	.00	.00	1561.10	7100.00	1572.44	.00	1572.50	4.06	2.17	4116.26	3524.93
	306.000	.00	.00	.00	1561.10	14300.00	1574.14	.00	1574.23	4.78	2.69	6696.87	6541.19
*	308.000	631.00	.00	.00	1571.00	2500.00	1573.24	1573.24	1573.70	145.00	6.73	535.70	207.61
*	308.000	631.00	.00	.00	1571.00	5500.00	1573.91	1573.91	1574.53	150.47	8.04	983.19	448.38
*	308.000	631.00	.00	.00	1571.00	7100.00	1574.18	1574.18	1574.85	148.95	8.44	1205.10	581.76
*	308.000	631.00	.00	.00	1571.00	14300.00	1575.01	1575.01	1575.79	145.43	9.23	2148.50	1185.79
*	310.000	490.00	.00	.00	1572.20	2500.00	1575.85	.00	1576.11	39.91	5.77	966.47	395.74
*	310.000	490.00	.00	.00	1572.20	5500.00	1576.46	.00	1576.69	40.99	6.40	1953.69	859.10
*	310.000	490.00	.00	.00	1572.20	7100.00	1576.69	.00	1576.92	40.82	6.59	2369.04	1111.34
*	310.000	490.00	.00	.00	1572.20	14300.00	1577.44	.00	1577.74	43.23	7.48	3797.49	2174.93
	312.000	450.00	.00	.00	1571.80	2500.00	1577.57	1576.76	1578.40	67.21	7.39	368.18	304.95
*	312.000	450.00	.00	.00	1571.80	5500.00	1577.85	1577.85	1577.87	.99	.94	4868.31	5536.26
*	312.000	450.00	.00	.00	1571.80	7100.00	1577.83	1577.83	1577.87	1.66	1.22	4849.77	5512.58
*	312.000	450.00	.00	.00	1571.80	14300.00	1577.97	.00	1578.10	6.24	2.43	5015.44	5723.85
*	314.000	354.00	.00	.00	1573.70	2500.00	1579.21	.00	1579.30	12.87	3.13	1389.32	696.82
*	314.000	354.00	.00	.00	1573.70	5500.00	1579.13	1579.13	1579.63	71.67	7.32	1311.53	649.67
*	314.000	354.00	.00	.00	1573.70	7100.00	1579.29	1579.29	1579.89	88.34	8.27	1482.93	755.41
*	314.000	354.00	.00	.00	1573.70	14300.00	1579.99	1579.99	1580.79	108.65	9.88	2329.87	1371.90
	316.000	550.00	.00	.00	1575.50	2500.00	1580.08	.00	1580.28	24.17	3.65	720.88	508.49
*	316.000	550.00	.00	.00	1575.50	5500.00	1581.29	.00	1581.46	18.53	3.74	2010.32	1277.71
*	316.000	550.00	.00	.00	1575.50	7100.00	1581.68	.00	1581.86	18.38	3.88	2512.03	1656.12
*	316.000	550.00	.00	.00	1575.50	14300.00	1582.63	.00	1583.05	20.26	4.48	4289.62	3176.97
*	318.000	510.00	.00	.00	1582.10	2500.00	1586.59	1586.59	1586.87	36.25	5.70	1105.31	415.25
*	318.000	510.00	.00	.00	1582.10	5500.00	1586.96	1586.96	1587.33	55.24	7.55	1815.34	740.00
*	318.000	510.00	.00	.00	1582.10	7100.00	1587.08	1587.08	1587.52	67.15	8.50	2043.35	866.43
*	318.000	510.00	.00	.00	1582.10	14300.00	1587.60	1587.60	1588.18	87.46	10.54	3059.20	1529.05

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	320.000	310.00	.00	.00	1583.80	2500.00	1587.77	.00	1587.82	28.57	3.58	1458.08	467.71
*	320.000	310.00	.00	.00	1583.80	5500.00	1588.36	.00	1588.44	27.22	4.02	2523.55	1054.12
*	320.000	310.00	.00	.00	1583.80	7100.00	1588.60	.00	1588.70	26.48	4.22	2978.62	1379.72
*	320.000	310.00	.00	.00	1583.80	14300.00	1589.38	.00	1589.55	29.03	5.21	4451.52	2654.23
*	322.000	430.00	.00	.00	1584.40	2500.00	1588.78	.00	1590.38	97.51	10.16	246.11	253.16
*	322.000	430.00	.00	.00	1584.40	5500.00	1592.48	1592.48	1593.06	24.31	7.41	1693.76	1115.44
*	322.000	430.00	.00	.00	1584.40	7100.00	1592.74	1592.74	1593.34	27.24	8.03	2098.54	1360.28
*	322.000	430.00	.00	.00	1584.40	14300.00	1593.47	1593.47	1594.24	39.70	10.34	3358.87	2269.63
	324.000	490.00	.00	.00	1588.20	2500.00	1592.92	.00	1593.93	54.49	8.09	308.99	338.68

*	324.000	490.00	.00	.00	1588.20	5500.00	1595.24	1595.24	1595.75	25.77	7.20	1807.58	1083.41
*	324.000	490.00	.00	.00	1588.20	7100.00	1595.46	1595.46	1596.01	29.21	7.84	2191.10	1313.60
*	324.000	490.00	.00	.00	1588.20	14300.00	1596.13	1596.13	1596.83	42.92	10.12	3394.59	2182.84
*	326.000	550.00	.00	.00	1591.40	2500.00	1597.78	1597.78	1598.09	23.85	6.01	1253.72	511.94
*	326.000	550.00	.00	.00	1591.40	5500.00	1598.23	1598.23	1598.58	34.97	7.66	2087.46	930.01
*	326.000	550.00	.00	.00	1591.40	7100.00	1598.31	1598.31	1598.78	47.78	9.04	2250.19	1027.18
	326.000	550.00	.00	.00	1591.40	14300.00	1598.94	.00	1599.46	57.84	10.61	3452.69	1880.35
*	328.000	320.00	.00	.00	1595.00	2500.00	1600.77	1600.77	1600.98	27.48	5.89	1339.88	476.88
*	328.000	320.00	.00	.00	1595.00	5500.00	1601.03	1601.03	1601.43	59.77	9.01	1806.00	711.39
*	328.000	320.00	.00	.00	1595.00	7100.00	1601.18	1601.18	1601.62	67.75	9.78	2067.42	862.57
*	328.000	320.00	.00	.00	1595.00	14300.00	1601.67	1601.67	1602.29	95.00	12.30	2950.66	1467.15
*	330.000	400.00	.00	.00	1597.30	2500.00	1603.42	1603.42	1603.86	42.07	7.23	867.56	385.42
*	330.000	400.00	.00	.00	1597.30	5500.00	1604.05	1604.05	1604.51	56.38	8.81	1582.82	732.48
	330.000	400.00	.00	.00	1597.30	7100.00	1604.23	.00	1604.74	65.12	9.60	1817.25	879.86
	330.000	400.00	.00	.00	1597.30	14300.00	1605.16	.00	1605.59	52.67	9.60	3303.22	1970.42
*	332.000	440.00	.00	.00	1604.00	2500.00	1608.47	1608.47	1609.03	87.73	7.03	552.67	266.90
*	332.000	440.00	.00	.00	1604.00	5500.00	1609.33	1609.33	1609.97	96.12	9.31	1081.78	560.99
*	332.000	440.00	.00	.00	1604.00	7100.00	1609.62	1609.62	1610.32	101.67	8.87	1313.03	704.14
*	332.000	440.00	.00	.00	1604.00	14300.00	1610.60	1610.60	1611.47	111.81	10.36	2247.45	1352.39
	334.000	410.00	.00	.00	1604.90	2500.00	1611.05	.00	1612.37	61.13	9.29	284.62	319.76
*	334.000	410.00	.00	.00	1604.90	5500.00	1613.65	1613.65	1614.54	32.66	9.06	1100.51	962.41
*	334.000	410.00	.00	.00	1604.90	7100.00	1614.02	1614.02	1615.03	37.69	10.05	1342.47	1156.48
*	334.000	410.00	.00	.00	1604.90	14300.00	1615.29	1615.29	1616.45	46.00	12.28	2405.68	2108.44
*	336.000	440.00	.00	.00	1607.10	2500.00	1616.22	1616.22	1616.96	61.51	8.95	485.07	318.76
*	336.000	440.00	.00	.00	1607.10	5500.00	1617.24	1617.24	1618.10	91.15	10.24	829.37	576.08
*	336.000	440.00	.00	.00	1607.10	7100.00	1617.57	1617.57	1618.52	110.42	10.32	960.72	675.66
*	336.000	440.00	.00	.00	1607.10	14300.00	1618.76	1618.76	1620.10	127.58	11.68	1580.29	1266.04
*	338.000	542.00	.00	.00	1625.50	2500.00	1627.78	1627.78	1628.14	93.74	5.62	643.46	258.22
*	338.000	542.00	.00	.00	1625.50	5500.00	1628.27	1628.27	1628.72	111.03	6.76	1174.60	521.98
*	338.000	542.00	.00	.00	1625.50	7100.00	1628.46	1628.46	1628.96	112.48	7.17	1412.85	669.44
*	338.000	542.00	.00	.00	1625.50	14300.00	1629.07	1629.07	1629.75	138.37	7.98	2227.96	1215.67

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	340.000	440.00	.00	.00	1617.97	2500.00	1628.51	.00	1628.73	9.10	3.84	721.49	1107.35
*	340.000	440.00	.00	.00	1617.97	5500.00	1629.48	1624.31	1630.10	14.10	6.79	1327.37	1464.84
*	340.000	440.00	.00	.00	1617.97	7100.00	1629.85	1625.50	1630.61	17.77	7.78	1689.33	1684.42
*	340.000	440.00	.00	.00	1617.97	14300.00	1631.01	1630.86	1631.84	23.89	9.61	3177.85	2925.71
*	342.000	533.00	.00	.00	1620.50	2500.00	1628.62	.00	1629.56	45.21	7.78	321.32	371.81
*	342.000	533.00	.00	.00	1620.50	5500.00	1632.32	1632.32	1633.10	25.48	7.62	1205.44	1089.50
*	342.000	533.00	.00	.00	1620.50	7100.00	1632.68	1632.68	1633.47	27.26	8.15	1612.02	1359.78
*	342.000	533.00	.00	.00	1620.50	14300.00	1633.64	1633.64	1634.57	36.12	10.18	2799.36	2379.50
*	344.000	510.00	.00	.00	1631.60	2500.00	1635.12	1635.12	1636.63	135.65	10.25	254.66	214.65
*	344.000	510.00	.00	.00	1631.60	5500.00	1638.18	1638.18	1638.76	36.64	7.94	1355.90	908.65
*	344.000	510.00	.00	.00	1631.60	7100.00	1638.45	1638.45	1639.02	38.32	8.38	1763.26	1146.98
*	344.000	510.00	.00	.00	1631.60	14300.00	1639.25	1639.25	1639.80	42.94	9.64	3427.48	2182.23
	346.000	625.00	.00	.00	1635.50	2500.00	1641.24	1640.57	1642.89	78.91	10.33	243.98	281.43
*	346.000	625.00	.00	.00	1635.50	5500.00	1643.10	1643.10	1643.61	34.02	7.90	1639.37	942.95
*	346.000	625.00	.00	.00	1635.50	7100.00	1643.35	1643.35	1643.84	36.14	8.29	2059.63	1181.00
*	346.000	625.00	.00	.00	1635.50	14300.00	1643.96	1643.96	1644.53	48.56	10.15	3359.13	2052.15
*	348.000	425.00	.00	.00	1641.50	2500.00	1645.05	.00	1645.23	37.39	5.29	1047.30	408.85
*	348.000	425.00	.00	.00	1641.50	5500.00	1645.32	1645.31	1645.72	85.49	8.34	1431.88	594.85
*	348.000	425.00	.00	.00	1641.50	7100.00	1645.56	1645.52	1645.92	75.97	8.17	1837.98	814.61
	348.000	425.00	.00	.00	1641.50	14300.00	1646.33	.00	1646.69	56.96	8.11	3308.48	1894.79
	350.000	317.00	.00	.00	1641.40	2500.00	1646.01	1645.96	1646.47	45.15	7.01	707.20	372.06
*	350.000	317.00	.00	.00	1641.40	5500.00	1646.93	1646.65	1647.27	40.47	7.33	1619.92	864.53
	350.000	317.00	.00	.00	1641.40	7100.00	1647.14	1646.88	1647.53	47.21	8.08	1903.98	1033.29
	350.000	317.00	.00	.00	1641.40	14300.00	1647.79	1647.64	1648.31	61.68	9.86	2963.04	1820.80
*	352.000	245.00	.00	.00	1642.85	2500.00	1649.14	1649.14	1649.60	31.05	6.74	771.48	448.66
*	352.000	245.00	.00	.00	1642.85	5500.00	1649.83	1649.83	1650.32	41.30	8.33	1547.75	855.80
*	352.000	245.00	.00	.00	1642.85	7100.00	1650.02	1650.02	1650.56	47.70	9.13	1800.26	1028.05
*	352.000	245.00	.00	.00	1642.85	14300.00	1650.63	1650.63	1651.38	68.38	11.64	2679.75	1729.32
*	354.000	477.00	.00	.00	1646.00	2500.00	1651.21	1651.21	1652.10	61.87	7.88	395.75	317.83
*	354.000	477.00	.00	.00	1646.00	5500.00	1652.63	1652.63	1653.37	51.62	8.32	1046.20	765.48
*	354.000	477.00	.00	.00	1646.00	7100.00	1653.05	1653.05	1653.78	51.84	8.64	1347.00	986.16
*	354.000	477.00	.00	.00	1646.00	14300.00	1653.94	1653.94	1654.95	73.18	11.01	2216.16	1671.63
*	356.000	495.00	.00	.00	1649.90	2500.00	1655.06	1655.06	1655.62	49.12	7.63	633.58	356.72
*	356.000	495.00	.00	.00	1649.90	5500.00	1655.92	1655.92	1656.48	55.85	8.82	1254.77	735.98
	356.000	495.00	.00	.00	1649.90	7100.00	1656.18	.00	1656.78	61.28	9.47	1482.31	906.98
	356.000	495.00	.00	.00	1649.90	14300.00	1657.44	.00	1657.89	40.81	8.72	3004.89	2238.59
	358.000	482.00	.00	.00	1655.80	2500.00	1657.57	.00	1657.70	45.63	3.08	908.31	370.11
	358.000	482.00	.00	.00	1655.80	5500.00	1658.27	.00	1658.46	40.57	3.69	1603.87	863.48
	358.000	482.00	.00	.00	1655.80	7100.00	1658.56	.00	1658.78	38.65	3.97	1922.28	1141.98

	358.000	482.00	.00	.00	1655.80	14300.00	1659.33	.00	1659.72	52.21	5.16	2846.19	1979.05

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	359.000	60.00	.00	.00	1653.30	2500.00	1657.77	1657.14	1657.94	32.13	3.35	745.43	441.07
	359.000	60.00	.00	.00	1653.30	5500.00	1658.42	1657.83	1658.77	48.15	4.73	1161.62	792.62
	359.000	60.00	.00	.00	1653.30	7100.00	1658.68	1658.14	1659.10	49.47	5.25	1392.52	1009.42
	359.000	60.00	.00	.00	1653.30	14300.00	1659.46	1659.19	1660.11	51.81	6.74	2351.69	1986.70
*	359.100	79.00	.00	.00	1655.70	2500.00	1657.97	.00	1658.39	77.15	5.16	484.29	284.63
	359.100	79.00	.00	.00	1655.70	5500.00	1658.81	.00	1659.34	93.16	5.80	938.14	569.83
*	359.100	79.00	.00	.00	1655.70	7100.00	1659.17	.00	1659.67	102.71	5.65	1256.34	700.56
	359.100	79.00	.00	.00	1655.70	14300.00	1659.94	.00	1660.65	85.15	6.77	2111.95	1549.72
*	360.000	58.00	.00	.00	1653.80	2500.00	1658.49	1656.89	1658.52	7.89	1.69	1481.96	889.98
*	360.000	58.00	.00	.00	1653.80	5500.00	1659.44	.00	1659.52	10.02	2.19	2513.05	1737.65
*	360.000	58.00	.00	.00	1653.80	7100.00	1659.76	.00	1659.85	10.90	2.48	2898.19	2150.85
*	360.000	58.00	.00	.00	1653.80	14300.00	1660.68	.00	1660.87	14.74	3.51	4075.48	3725.07
*	361.000	54.00	.00	.00	1654.30	2500.00	1658.53	.00	1658.60	17.86	2.02	1239.97	591.60
	361.000	54.00	.00	.00	1654.30	5500.00	1659.50	.00	1659.58	13.30	2.38	2339.19	1508.26
	361.000	54.00	.00	.00	1654.30	7100.00	1659.82	.00	1659.92	13.74	2.59	2743.59	1915.21
	361.000	54.00	.00	.00	1654.30	14300.00	1660.76	.00	1660.96	17.59	3.53	4055.88	3409.39
*	362.000	547.00	.00	.00	1659.00	2500.00	1664.14	1664.14	1664.42	48.75	6.67	932.93	358.06
*	362.000	547.00	.00	.00	1659.00	5500.00	1664.51	1664.51	1664.93	79.85	8.98	1368.51	615.48
*	362.000	547.00	.00	.00	1659.00	7100.00	1664.66	1664.66	1665.14	91.57	9.62	1559.08	741.95
*	362.000	547.00	.00	.00	1659.00	14300.00	1665.18	1665.18	1665.95	130.55	11.56	2212.48	1251.55
*	364.000	551.00	.00	.00	1661.50	2500.00	1665.90	.00	1665.98	17.87	2.97	1258.29	591.42
*	364.000	551.00	.00	.00	1661.50	5500.00	1666.69	.00	1666.81	16.01	3.56	2150.45	1296.05
*	364.000	551.00	.00	.00	1661.50	7100.00	1667.00	.00	1667.13	18.35	3.81	2558.43	1657.57
*	364.000	551.00	.00	.00	1661.50	14300.00	1668.06	.00	1668.26	19.35	4.77	4127.50	3250.52
*	366.000	460.00	.00	.00	1665.00	2500.00	1668.16	1668.16	1668.47	104.63	6.80	727.40	244.41
*	366.000	460.00	.00	.00	1665.00	5500.00	1668.57	1668.57	1668.98	124.95	7.69	1191.39	492.03
*	366.000	460.00	.00	.00	1665.00	7100.00	1668.67	1668.67	1669.19	162.49	8.27	1305.81	556.99
*	366.000	460.00	.00	.00	1665.00	14300.00	1669.50	.00	1670.12	111.41	8.56	2324.15	1354.79
*	368.000	440.00	.00	.00	1666.50	2500.00	1669.89	.00	1669.96	16.51	3.07	1397.49	615.18
*	368.000	440.00	.00	.00	1666.50	5500.00	1670.57	.00	1670.66	18.24	3.40	2325.34	1287.72
*	368.000	440.00	.00	.00	1666.50	7100.00	1670.87	.00	1670.98	17.89	3.61	2789.86	1678.76
*	368.000	440.00	.00	.00	1666.50	14300.00	1671.73	.00	1671.92	20.77	4.64	4319.55	3137.79
	370.000	479.00	.00	.00	1668.00	2500.00	1670.80	.00	1670.86	22.64	3.25	1379.04	525.44
	370.000	479.00	.00	.00	1668.00	5500.00	1671.46	.00	1671.54	19.27	3.35	2490.94	1251.96
	370.000	479.00	.00	.00	1668.00	7100.00	1671.74	.00	1671.84	18.38	3.41	3027.03	1656.26
	370.000	479.00	.00	.00	1668.00	14300.00	1672.67	.00	1672.79	16.95	3.69	5086.83	3473.21
*	372.000	571.00	.00	.00	1669.50	2500.00	1673.06	1673.06	1673.29	105.70	6.18	897.08	246.17
*	372.000	571.00	.00	.00	1669.50	5500.00	1673.38	1673.38	1673.64	117.76	6.69	1507.35	506.84
*	372.000	571.00	.00	.00	1669.50	7100.00	1673.54	.00	1673.81	108.11	6.51	1840.51	682.80
*	372.000	571.00	.00	.00	1669.50	14300.00	1674.19	.00	1674.51	79.63	6.04	3212.49	1602.47

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	374.000	414.00	.00	.00	1670.20	2500.00	1674.11	.00	1674.13	8.06	2.04	2106.16	980.52
*	374.000	414.00	.00	.00	1670.20	5500.00	1674.66	.00	1674.71	10.71	2.38	3160.13	1680.72
*	374.000	414.00	.00	.00	1670.20	7100.00	1674.89	.00	1674.94	12.00	2.57	3571.23	2049.29
*	374.000	414.00	.00	.00	1670.20	14300.00	1675.65	.00	1675.78	15.89	3.03	5059.48	3586.96
*	376.000	492.00	.00	.00	1671.50	2500.00	1675.15	1675.15	1675.65	57.23	6.02	590.78	330.46
*	376.000	492.00	.00	.00	1671.50	5500.00	1675.88	1675.88	1676.36	58.98	6.96	1445.13	716.17
*	376.000	492.00	.00	.00	1671.50	7100.00	1676.12	1676.12	1676.57	56.61	7.08	1808.20	943.61
*	376.000	492.00	.00	.00	1671.50	14300.00	1676.78	.00	1677.34	65.96	8.35	2831.46	1760.72
*	378.000	453.00	.00	.00	1671.70	2500.00	1676.76	.00	1677.06	19.05	4.41	567.11	572.75
	378.000	453.00	.00	.00	1671.70	5500.00	1677.76	1676.44	1678.38	33.58	6.72	1231.24	949.19
	378.000	453.00	.00	.00	1671.70	7100.00	1678.03	1677.98	1678.70	37.59	7.34	1575.78	1157.99
	378.000	453.00	.00	.00	1671.70	14300.00	1679.01	1678.85	1679.70	40.97	8.47	2836.73	2234.62
*	380.000	512.00	.00	.00	1674.20	2500.00	1678.04	.00	1678.55	44.80	5.78	432.21	373.50
	380.000	512.00	.00	.00	1674.20	5500.00	1679.62	.00	1680.56	50.11	7.87	771.57	776.95
	380.000	512.00	.00	.00	1674.20	7100.00	1680.06	1679.62	1681.23	58.17	8.95	921.79	930.95
*	380.000	512.00	.00	.00	1674.20	14300.00	1681.72	1681.72	1683.30	63.95	11.11	1737.98	1788.24
*	382.000	509.00	.00	.00	1674.20	2500.00	1679.46	.00	1679.71	13.17	3.98	628.91	688.82
*	382.000	509.00	.00	.00	1674.20	5500.00	1681.49	.00	1681.91	15.38	5.36	1187.09	1402.65
*	382.000	509.00	.00	.00	1674.20	7100.00	1682.23	.00	1682.70	16.04	5.82	1447.09	1772.87
*	382.000	509.00	.00	.00	1674.20	14300.00	1684.52	.00	1685.06	19.71	6.80	3022.22	3220.69
	384.000	512.00	.00	.00	1674.40	2500.00	1680.14	.00	1680.38	13.09	3.97	629.09	691.04
	384.000	512.00	.00	.00	1674.40	5500.00	1682.25	.00	1682.77	17.09	5.76	954.86	1330.33
	384.000	512.00	.00	.00	1674.40	7100.00	1683.00	.00	1683.67	19.84	6.61	1074.48	1594.16
	384.000	512.00	.00	.00	1674.40	14300.00	1685.25	.00	1686.45	28.11	9.10	1873.20	2697.29

	386.000	535.00	.00	.00	1675.10	2500.00	1680.92	.00	1681.23	18.59	4.45	561.73	579.90
	386.000	535.00	.00	.00	1675.10	5500.00	1683.20	.00	1683.77	20.09	6.04	910.52	1227.11
	386.000	535.00	.00	.00	1675.10	7100.00	1684.08	.00	1684.79	21.63	6.75	1052.59	1526.64
*	386.000	535.00	.00	.00	1675.10	14300.00	1687.07	.00	1687.55	13.54	6.46	3586.96	3886.30
*	388.000	458.00	.00	.00	1675.60	2500.00	1681.63	.00	1681.81	8.94	3.45	724.12	836.07
	388.000	458.00	.00	.00	1675.60	5500.00	1684.08	.00	1684.45	10.85	4.87	1130.18	1669.90
	388.000	458.00	.00	.00	1675.60	7100.00	1685.06	.00	1685.53	11.70	5.46	1299.26	2075.57
	388.000	458.00	.00	.00	1675.60	14300.00	1687.44	.00	1688.46	21.66	8.22	1804.98	3072.49
	390.000	532.00	.00	.00	1675.90	2500.00	1682.14	.00	1682.35	11.19	3.71	673.27	747.44
	390.000	532.00	.00	.00	1675.90	5500.00	1684.67	.00	1685.07	12.20	5.06	1087.48	1574.71
	390.000	532.00	.00	.00	1675.90	7100.00	1685.69	.00	1686.19	12.84	5.63	1261.93	1981.56
	390.000	532.00	.00	.00	1675.90	14300.00	1688.71	.00	1689.51	16.53	7.41	2303.73	3516.96
	392.000	577.00	.00	.00	1676.60	2500.00	1682.78	.00	1683.01	11.46	3.80	657.33	738.59
	392.000	577.00	.00	.00	1676.60	5500.00	1685.37	.00	1685.79	12.54	5.17	1063.31	1553.28
	392.000	577.00	.00	.00	1676.60	7100.00	1686.43	.00	1686.94	13.21	5.73	1239.32	1963.79
	392.000	577.00	.00	.00	1676.60	14300.00	1689.68	.00	1690.57	19.64	7.62	2020.13	3227.05

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	SECNO	XLCH	ELTRO	ELLC	EIMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	394.000	448.00	.00	.00	1677.40	2500.00	1683.37	.00	1683.66	17.86	4.32	578.23	591.64
	394.000	448.00	.00	.00	1677.40	5500.00	1685.96	.00	1686.44	18.08	5.59	990.24	1371.55
	394.000	448.00	.00	.00	1677.40	7100.00	1687.04	.00	1687.61	18.07	6.06	1171.28	1771.29
	394.000	448.00	.00	.00	1677.40	14300.00	1690.60	.00	1691.39	16.82	7.32	2264.27	3487.11
	396.000	507.00	.00	.00	1678.40	2500.00	1684.26	.00	1684.55	17.19	4.31	578.90	603.75
	396.000	507.00	.00	.00	1678.40	5500.00	1686.78	.00	1687.28	16.82	5.68	968.61	1340.96
	396.000	507.00	.00	.00	1678.40	7100.00	1687.86	.00	1688.45	16.86	6.21	1144.11	1726.93
	396.000	507.00	.00	.00	1678.40	14300.00	1691.39	.00	1692.37	19.71	7.99	1866.30	3221.05
*	398.000	352.00	.00	.00	1676.30	2500.00	1684.58	.00	1684.65	.34	2.10	1190.79	4312.43
*	398.000	352.00	.00	.00	1676.30	5500.00	1687.27	.00	1687.44	.59	3.31	1664.75	7150.20
*	398.000	352.00	.00	.00	1676.30	7100.00	1688.41	.00	1688.63	.67	3.80	1898.47	8693.92
*	398.000	352.00	.00	.00	1676.30	14300.00	1692.14	.00	1692.62	.95	5.56	2777.17	14682.44
	400.000	170.00	.00	.00	1676.30	2500.00	1684.58	.00	1684.67	.42	2.43	1029.80	3843.06
	400.000	170.00	.00	.00	1676.30	5500.00	1687.24	.00	1687.49	.65	4.04	1360.81	5966.06
	400.000	170.00	.00	.00	1676.30	7100.00	1688.36	.00	1688.71	1.04	4.79	1500.13	6947.72
	400.000	170.00	.00	.00	1676.30	14300.00	1692.21	.00	1692.65	1.16	7.84	4811.11	13266.21
	400.100	88.70	1691.50	1687.10	1676.70	2500.00	1684.58	.00	1684.68	.51	2.57	973.97	3517.09
	400.100	88.70	1691.50	1687.10	1676.70	5500.00	1687.45	.00	1687.71	.91	4.13	1330.34	5757.99
	400.100	88.70	1691.50	1687.10	1676.70	7100.00	1688.80	.00	1689.14	1.05	4.74	1498.36	6935.00
*	400.100	88.70	1691.50	1687.10	1676.70	14300.00	1694.50	.00	1694.65	.46	3.95	8562.92	21197.39
	401.000	218.00	.00	.00	1678.20	2500.00	1684.58	.00	1684.71	.82	2.85	875.82	2687.64
	401.000	218.00	.00	.00	1678.20	5500.00	1687.46	.00	1687.73	1.21	4.04	1361.61	5216.64
	401.000	218.00	.00	.00	1678.20	7100.00	1688.87	.00	1689.17	1.09	4.40	1619.26	6787.03
	401.000	218.00	.00	.00	1678.20	14300.00	1694.37	.00	1694.70	.74	5.00	3903.66	16595.23
*	402.000	83.00	.00	.00	1680.90	2500.00	1684.36	.00	1684.82	6.56	5.49	455.17	976.19
*	402.000	83.00	.00	.00	1680.90	5500.00	1687.26	.00	1687.85	8.97	6.17	891.53	2761.72
*	402.000	83.00	.00	.00	1680.90	7100.00	1688.66	.00	1689.28	9.32	6.34	1119.96	3897.97
*	402.000	83.00	.00	.00	1680.90	14300.00	1694.18	.00	1694.82	8.69	6.53	2603.01	11006.23
*	404.000	252.00	.00	.00	1682.20	2500.00	1684.51	1684.51	1685.62	25.68	8.45	295.99	493.35
*	404.000	252.00	.00	.00	1682.20	5500.00	1687.07	.00	1688.15	9.88	8.31	661.81	1749.37
*	404.000	252.00	.00	.00	1682.20	7100.00	1688.51	.00	1689.51	6.79	8.04	883.45	2723.77
	404.000	252.00	.00	.00	1682.20	14300.00	1694.04	.00	1694.96	2.79	7.69	1994.18	8554.90
*	406.000	282.00	.00	.00	1683.90	2500.00	1686.27	1686.27	1687.38	25.61	8.47	295.01	494.04
*	406.000	282.00	.00	.00	1683.90	5500.00	1687.82	1687.82	1689.62	21.95	10.76	511.05	1173.97
*	406.000	282.00	.00	.00	1683.90	7100.00	1688.52	1688.52	1690.61	20.79	11.59	612.52	1557.29
*	406.000	282.00	.00	.00	1683.90	14300.00	1693.77	.00	1695.23	6.02	9.71	1474.39	5830.57
	408.000	303.00	.00	.00	1684.60	2500.00	1687.16	.00	1688.06	18.31	7.60	328.98	584.29
	408.000	303.00	.00	.00	1684.60	5500.00	1688.60	.00	1690.26	19.47	10.34	531.74	1246.38
	408.000	303.00	.00	.00	1684.60	7100.00	1689.15	1689.14	1691.24	21.00	11.61	611.51	1549.29
	408.000	303.00	.00	.00	1684.60	14300.00	1693.80	.00	1695.50	7.44	10.48	1364.57	5241.75

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	SECNO	XLCH	ELTRO	ELLC	EIMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	410.000	318.00	.00	.00	1686.10	2500.00	1688.41	1688.41	1689.52	25.71	8.45	295.89	493.08
*	410.000	318.00	.00	.00	1686.10	5500.00	1689.97	1689.97	1691.75	21.82	10.72	512.97	1177.41
*	410.000	318.00	.00	.00	1686.10	7100.00	1690.65	1690.65	1692.74	20.89	11.58	612.94	1553.54
*	410.000	318.00	.00	.00	1686.10	14300.00	1693.19	1693.19	1696.31	18.45	14.18	1008.55	3329.12
*	412.000	215.00	.00	.00	1686.60	2500.00	1689.32	.00	1689.92	11.08	6.20	403.43	751.14
*	412.000	215.00	.00	.00	1686.60	5500.00	1691.17	.00	1692.13	9.29	7.85	700.68	1904.42
*	412.000	215.00	.00	.00	1686.60	7100.00	1692.00	.00	1693.11	8.90	8.46	839.46	2393.59
*	412.000	215.00	.00	.00	1686.60	14300.00	1695.03	.00	1696.70	7.77	10.38	1378.17	5129.67

*	414.000	497.00	.00	.00	1688.40	2500.00	1693.16	1693.16	1694.69	126.44	9.91	252.16	222.33
*	414.000	497.00	.00	.00	1688.40	5500.00	1695.34	1695.34	1697.66	112.69	12.22	450.26	518.11
*	414.000	497.00	.00	.00	1688.40	7100.00	1696.29	1696.29	1698.91	105.76	12.99	546.38	690.41
*	414.000	497.00	.00	.00	1688.40	14300.00	1699.46	1699.46	1703.41	96.26	15.95	896.81	1457.49
*	416.000	353.00	.00	.00	1689.80	2500.00	1696.20	.00	1696.87	34.32	6.57	380.72	426.74
*	416.000	353.00	.00	.00	1689.80	5500.00	1698.71	.00	1699.98	39.99	9.09	607.40	869.72
*	416.000	353.00	.00	.00	1689.80	7100.00	1699.69	.00	1701.28	43.14	10.13	701.06	1080.98
	416.000	353.00	.00	.00	1689.80	14300.00	1703.10	.00	1706.00	53.52	13.65	1051.29	1954.76
	418.000	274.00	.00	.00	1691.80	2500.00	1697.15	.00	1698.23	62.32	8.36	298.93	316.68
	418.000	274.00	.00	.00	1691.80	5500.00	1699.63	.00	1701.59	67.70	11.24	489.48	668.42
	418.000	274.00	.00	.00	1691.80	7100.00	1700.61	.00	1703.03	71.69	12.47	569.27	838.57
*	418.000	274.00	.00	.00	1691.80	14300.00	1705.81	1705.81	1707.78	41.29	11.91	1619.02	2225.45
	420.000	570.00	.00	.00	1694.00	2500.00	1700.30	.00	1701.05	39.25	6.97	358.86	399.04
	420.000	570.00	.00	.00	1694.00	5500.00	1703.26	.00	1704.47	37.43	8.84	622.03	899.04
*	420.000	570.00	.00	.00	1694.00	7100.00	1704.57	.00	1705.96	36.29	9.44	752.18	1178.80
	420.000	570.00	.00	.00	1694.00	14300.00	1708.27	1706.94	1709.89	32.57	10.80	1681.86	2585.60
*	422.000	319.00	.00	.00	1694.30	2500.00	1701.69	1701.69	1703.70	129.29	11.36	220.58	219.86
*	422.000	319.00	.00	.00	1694.30	5500.00	1704.64	1704.64	1707.38	94.87	13.49	427.61	564.68
*	422.000	319.00	.00	.00	1694.30	7100.00	1705.89	1705.89	1708.81	89.43	14.67	537.05	750.80
*	422.000	319.00	.00	.00	1694.30	14300.00	1710.24	1710.24	1712.74	73.99	13.55	1195.86	1662.51
*	424.000	458.00	.00	.00	1699.00	2200.00	1705.84	.00	1706.21	25.50	3.94	468.44	435.69
*	424.000	458.00	.00	.00	1699.00	4943.92	1708.73	.00	1709.03	14.04	4.46	1112.70	1319.61
*	424.000	458.00	.00	.00	1699.00	5504.58	1709.90	.00	1710.13	8.59	4.06	1421.65	1877.77
*	424.000	458.00	.00	.00	1699.00	5504.58	1713.37	.00	1713.48	1.37	2.20	3318.05	4704.68
	426.000	268.00	.00	.00	1701.50	2200.00	1706.58	.00	1706.96	27.41	2.59	475.03	420.21
	426.000	268.00	.00	.00	1701.50	4943.92	1709.11	.00	1709.51	18.81	4.03	992.44	1140.02
	426.000	268.00	.00	.00	1701.50	5504.58	1710.14	.00	1710.43	12.03	3.88	1286.35	1586.97
	426.000	268.00	.00	.00	1701.50	5504.58	1713.41	.00	1713.47	1.86	2.20	3014.61	4040.16
*	428.000	485.00	.00	.00	1707.00	2200.00	1710.34	1710.34	1711.22	158.45	7.53	290.05	176.49
*	428.000	485.00	.00	.00	1707.00	4943.92	1711.60	1711.60	1712.97	133.38	9.37	527.76	428.09
*	428.000	485.00	.00	.00	1707.00	5504.58	1711.83	1711.83	1713.26	128.21	9.59	574.05	496.15
*	428.000	485.00	.00	.00	1707.00	5504.58	1713.28	.00	1713.87	34.81	6.21	886.32	932.99

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	SECNO	XLOC	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	BS	10*KS	VCH	AREA	.01K
*	430.000	182.00	.00	.00	1708.00	2200.00	1712.44	.00	1712.93	60.23	5.58	394.12	283.48
	430.000	182.00	.00	.00	1708.00	4943.92	1713.77	.00	1714.70	68.17	7.71	641.11	598.78
*	430.000	182.00	.00	.00	1708.00	5504.58	1714.04	.00	1714.74	53.00	7.06	902.98	756.09
	430.000	182.00	.00	.00	1708.00	5504.58	1713.96	.00	1714.72	58.42	7.31	866.28	728.16
*	432.000	565.00	.00	.00	1709.00	2200.00	1714.29	.00	1714.64	17.52	4.75	478.49	525.61
*	432.000	565.00	.00	.00	1708.50	4943.92	1715.85	.00	1716.28	13.11	5.60	1077.05	1365.35
*	432.000	565.00	.00	.00	1708.50	5504.58	1715.81	.00	1716.35	16.89	6.32	1061.97	1339.23
*	432.000	565.00	.00	.00	1708.50	5504.58	1715.84	.00	1716.37	16.44	6.26	1073.61	1357.68
	438.000	494.00	.00	.00	1710.50	2200.00	1715.25	.00	1715.80	26.98	5.93	370.90	423.53
*	438.000	494.00	.00	.00	1710.50	4943.92	1716.49	.00	1717.74	40.74	8.98	550.35	774.60
*	438.000	494.00	.00	.00	1710.50	5504.58	1716.63	.00	1718.07	44.75	9.63	571.80	822.89
*	438.000	494.00	.00	.00	1710.50	5504.58	1716.64	.00	1718.08	44.47	9.61	572.91	825.42
	439.000	28.00	.00	.00	1710.70	2200.00	1715.29	.00	1715.92	31.72	6.33	347.49	390.61
	439.000	28.00	.00	.00	1710.70	4943.92	1716.50	.00	1717.97	46.19	9.72	508.64	727.45
	439.000	28.00	.00	.00	1710.70	5504.58	1716.64	.00	1718.34	51.11	10.45	526.68	769.94
	439.000	28.00	.00	.00	1710.70	5504.58	1716.65	.00	1718.34	50.82	10.43	527.62	772.19
	439.100	1.00	1717.40	1726.40	1710.70	2200.00	1715.19	.00	1716.03	57.68	7.34	299.63	289.68
*	439.100	1.00	1717.40	1726.40	1710.70	4943.92	1716.41	1716.41	1718.23	77.69	10.82	456.78	560.91
*	439.100	1.00	1717.40	1726.40	1710.70	5504.58	1716.67	1716.67	1718.62	76.88	11.21	491.01	627.78
*	439.100	1.00	1717.40	1726.40	1710.70	5504.58	1716.67	1716.67	1718.62	76.88	11.21	491.01	627.78
*	440.000	104.00	1717.40	1726.17	1711.70	2200.00	1716.49	1716.49	1717.68	82.12	8.74	251.79	242.78
*	440.000	104.00	1717.40	1726.17	1711.70	4943.92	1718.20	1718.20	1720.03	73.40	10.86	455.26	577.05
*	440.000	104.00	1717.40	1726.17	1711.70	5504.58	1718.45	1718.45	1720.43	73.48	11.27	488.26	642.17
*	440.000	104.00	1717.40	1726.17	1711.70	5504.58	1718.45	1718.45	1720.43	73.48	11.27	488.26	642.17
*	440.100	1.00	.00	.00	1711.70	2200.00	1717.22	.00	1717.85	28.61	6.35	346.20	411.31
*	440.100	1.00	.00	.00	1711.70	4943.92	1719.26	.00	1720.28	25.12	8.10	610.45	986.36
*	440.100	1.00	.00	.00	1711.70	5504.58	1719.61	.00	1720.70	24.56	8.38	656.91	1110.84
*	440.100	1.00	.00	.00	1711.70	5504.58	1719.61	.00	1720.70	24.56	8.38	656.91	1110.84
*	441.000	31.00	.00	.00	1711.70	2200.00	1717.85	.00	1718.02	6.16	3.33	659.76	886.35
*	441.000	31.00	.00	.00	1711.70	4943.92	1720.22	.00	1720.52	5.36	4.42	1118.45	2136.31
*	441.000	31.00	.00	.00	1711.70	5504.58	1720.63	.00	1720.96	5.28	4.59	1198.01	2395.57
*	441.000	31.00	.00	.00	1711.70	5504.58	1720.63	.00	1720.96	5.28	4.59	1198.01	2395.57
	442.000	466.00	.00	.00	1712.40	2200.00	1718.21	.00	1718.38	9.51	3.31	665.58	713.39
	442.000	466.00	.00	.00	1712.40	5100.00	1720.62	.00	1720.79	5.82	3.32	1535.44	2113.86
	442.000	466.00	.00	.00	1712.40	5993.00	1721.04	.00	1721.23	5.81	3.48	1721.55	2486.48
	442.000	466.00	.00	.00	1712.40	5993.00	1721.04	.00	1721.23	5.81	3.48	1721.55	2486.48
*	444.000	299.00	.00	.00	1713.90	2200.00	1718.35	.00	1719.09	47.62	6.91	318.59	318.81
*	444.000	299.00	.00	.00	1713.90	5100.00	1720.42	.00	1721.34	26.34	7.85	705.41	993.79

*	444.000	299.00	.00	.00	1713.90	5993.00	1720.80	.00	1721.79	25.70	8.22	829.70	1182.06
*	444.000	299.00	.00	.00	1713.90	5993.00	1720.80	.00	1721.79	25.70	8.22	829.70	1182.06

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	446.000	390.00	.00	.00	1715.67	2200.00	1720.37	.00	1721.29	64.48	9.70	285.55	273.97
*	446.000	390.00	.00	.00	1715.67	5100.00	1721.82	1721.82	1723.42	65.73	10.16	502.22	629.04
*	446.000	390.00	.00	.00	1715.67	5993.00	1722.26	1722.26	1723.94	59.41	10.42	578.87	777.53
*	446.000	390.00	.00	.00	1715.67	5993.00	1722.26	1722.26	1723.94	59.41	10.42	578.87	777.53
*	448.000	595.00	.00	.00	1717.40	2200.00	1723.02	.00	1723.52	23.76	5.71	385.58	451.38
*	448.000	595.00	.00	.00	1717.40	5100.00	1724.88	.00	1725.78	25.14	7.62	681.56	1017.21
*	448.000	595.00	.00	.00	1717.40	5993.00	1725.22	.00	1726.26	26.22	8.22	753.76	1170.47
*	448.000	595.00	.00	.00	1717.40	5993.00	1725.22	.00	1726.26	26.22	8.22	753.76	1170.47
	450.000	527.00	.00	.00	1719.10	2200.00	1724.33	.00	1724.88	27.50	5.96	369.30	419.52
	450.000	527.00	.00	.00	1719.10	5100.00	1726.23	.00	1727.16	27.02	7.78	666.16	981.31
	450.000	527.00	.00	.00	1719.10	5993.00	1726.62	.00	1727.67	27.19	8.29	744.80	1149.32
	450.000	527.00	.00	.00	1719.10	5993.00	1726.62	.00	1727.67	27.19	8.29	744.80	1149.32
*	452.000	517.00	.00	.00	1719.40	2200.00	1725.51	.00	1725.87	15.48	4.82	456.22	599.29
	452.000	517.00	.00	.00	1719.40	5100.00	1727.55	.00	1728.25	16.11	6.67	764.11	1270.61
	452.000	517.00	.00	.00	1719.40	5993.00	1728.02	.00	1728.80	17.24	7.13	840.75	1443.32
	452.000	517.00	.00	.00	1719.40	5993.00	1728.02	.00	1728.80	17.24	7.13	840.75	1443.32
	454.000	500.00	.00	.00	1720.10	2200.00	1726.14	.00	1726.44	9.72	4.43	498.04	705.51
	454.000	500.00	.00	.00	1720.10	5100.00	1728.34	.00	1728.95	12.15	6.25	815.93	1460.95
	454.000	500.00	.00	.00	1720.10	5993.00	1728.86	.00	1729.55	12.82	6.68	897.25	1673.56
	454.000	500.00	.00	.00	1720.10	5993.00	1728.86	.00	1729.55	12.82	6.68	897.25	1673.56
	456.000	510.00	.00	.00	1720.40	2200.00	1726.69	.00	1727.11	16.45	5.27	421.31	540.36
	456.000	510.00	.00	.00	1720.40	5100.00	1728.97	.00	1729.70	16.17	6.85	744.31	1268.36
	456.000	510.00	.00	.00	1720.40	5993.00	1729.51	.00	1730.33	16.30	7.24	827.70	1484.31
	456.000	510.00	.00	.00	1720.40	5993.00	1729.51	.00	1730.33	16.30	7.24	827.70	1484.31
	458.000	392.00	.00	.00	1720.60	2200.00	1727.51	.00	1728.74	14.53	5.82	576.28	573.16
	458.000	392.00	.00	.00	1720.60	5100.00	1729.95	.00	1730.43	20.39	8.55	918.37	1129.38
	458.000	392.00	.00	.00	1720.60	5993.00	1730.53	.00	1731.08	21.44	8.96	1005.96	1294.29
	458.000	392.00	.00	.00	1720.60	5993.00	1730.53	.00	1731.08	21.44	8.96	1005.96	1294.29
	460.000	357.00	.00	.00	1721.70	2200.00	1728.12	.00	1728.42	23.13	4.40	499.52	457.45
	460.000	357.00	.00	.00	1721.70	5100.00	1730.72	.00	1731.27	24.86	6.92	861.25	1022.97
	460.000	357.00	.00	.00	1721.70	5993.00	1731.33	.00	1731.95	25.52	6.29	953.17	1186.43
	460.000	357.00	.00	.00	1721.70	5993.00	1731.33	.00	1731.95	25.52	6.29	953.17	1186.43
	468.000	274.00	.00	.00	1722.00	2200.00	1728.76	.00	1729.12	25.84	4.84	454.33	432.81
	468.000	274.00	.00	.00	1722.00	5100.00	1731.42	.00	1732.08	30.51	6.54	780.15	923.20
	468.000	274.00	.00	.00	1722.00	5993.00	1732.04	.00	1732.78	31.48	6.91	866.77	1068.18
	468.000	274.00	.00	.00	1722.00	5993.00	1732.04	.00	1732.78	31.48	6.91	866.77	1068.18
	468.900	47.00	.00	.00	1721.60	2200.00	1728.91	.00	1729.24	21.82	4.62	476.46	471.01
	468.900	47.00	.00	.00	1721.60	5100.00	1731.57	.00	1732.22	27.37	6.46	789.07	974.92
	468.900	47.00	.00	.00	1721.60	5993.00	1732.19	.00	1732.93	28.73	6.88	870.65	1118.33
	468.900	47.00	.00	.00	1721.60	5993.00	1732.19	.00	1732.93	28.73	6.88	870.65	1118.33

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	469.000	1.00	1733.90	1737.20	1721.60	2200.00	1728.90	.00	1729.26	33.12	4.89	455.20	382.26
	469.000	1.00	1733.90	1737.20	1721.60	5100.00	1731.53	.00	1732.27	48.29	6.86	743.16	733.89
	469.000	1.00	1733.90	1737.20	1721.60	5993.00	1732.14	.00	1732.98	52.36	7.35	815.81	828.21
	469.000	1.00	1733.90	1737.20	1721.60	5993.00	1732.14	.00	1732.98	52.36	7.35	815.81	828.21
	470.000	109.00	1733.90	1733.21	1722.60	2200.00	1729.33	.00	1729.61	26.42	4.21	522.98	427.98
	470.000	109.00	1733.90	1733.21	1722.60	5100.00	1732.24	.00	1732.75	31.97	5.75	887.16	902.00
	470.000	109.00	1733.90	1733.21	1722.60	5993.00	1733.05	.00	1733.64	53.66	6.13	979.58	818.14
	470.000	109.00	1733.90	1733.21	1722.60	5993.00	1733.05	.00	1733.64	53.66	6.13	979.58	818.14
	470.100	1.00	.00	.00	1722.60	2200.00	1729.37	.00	1729.63	16.22	3.97	553.98	546.20
	470.100	1.00	.00	.00	1722.60	5100.00	1732.32	.00	1732.77	16.93	5.42	941.28	1239.51
*	470.100	1.00	.00	.00	1722.60	5993.00	1733.17	.00	1733.66	16.18	5.66	1058.84	1489.91
*	470.100	1.00	.00	.00	1722.60	5993.00	1733.17	.00	1733.66	16.18	5.66	1058.84	1489.91
	471.000	41.00	.00	.00	1722.50	2200.00	1729.39	.00	1729.71	12.05	4.56	482.47	633.65
	471.000	41.00	.00	.00	1722.50	5100.00	1732.32	.00	1732.89	13.41	6.04	843.97	1392.91
	471.000	41.00	.00	.00	1722.50	5993.00	1733.17	.00	1733.78	12.77	6.22	963.54	1676.93
	471.000	41.00	.00	.00	1722.50	5993.00	1733.17	.00	1733.78	12.77	6.22	963.54	1676.93
	472.000	340.00	.00	.00	1722.70	2200.00	1729.77	.00	1730.32	21.62	5.92	371.89	473.20
	472.000	340.00	.00	.00	1722.70	5100.00	1732.66	.00	1733.59	23.54	7.77	656.05	1051.18
	472.000	340.00	.00	.00	1722.70	5993.00	1733.46	.00	1734.46	22.74	8.01	747.78	1256.85
	472.000	340.00	.00	.00	1722.70	5993.00	1733.46	.00	1734.46	22.74	8.01	747.78	1256.85
	474.000	392.00	.00	.00	1724.70	2200.00	1730.73	.00	1731.53	36.51	7.20	305.44	364.12
	474.000	392.00	.00	.00	1724.70	5100.00	1733.58	.00	1734.86	33.87	9.09	561.23	876.34
	474.000	392.00	.00	.00	1724.70	5993.00	1734.33	.00	1735.71	32.62	9.42	636.40	1049.32

	474.000	392.00	.00	.00	1724.70	5993.00	1734.33	.00	1735.71	32.62	9.42	636.40	1049.32
*	478.000	415.00	.00	.00	1724.90	2200.00	1732.12	.00	1732.48	12.26	4.83	455.14	628.23
*	478.000	415.00	.00	.00	1724.90	5100.00	1735.23	.00	1735.90	13.73	6.56	777.90	1376.51
*	478.000	415.00	.00	.00	1724.90	5993.00	1736.00	.00	1736.75	13.95	6.92	865.60	1604.75
*	478.000	415.00	.00	.00	1724.90	5993.00	1736.00	.00	1736.75	13.95	6.92	865.60	1604.75
	479.100	44.00	.00	.00	1724.90	2200.00	1732.32	.00	1732.56	8.01	3.95	556.43	777.26
	479.100	44.00	.00	.00	1724.90	5100.00	1735.59	.00	1736.02	8.69	5.26	969.68	1729.70
	479.100	44.00	.00	.00	1724.90	5993.00	1736.40	.00	1736.88	8.85	5.52	1086.65	2014.89
	479.100	44.00	.00	.00	1724.90	5993.00	1736.40	.00	1736.88	8.85	5.52	1086.65	2014.89
	480.000	102.00	1741.50	1731.00	1725.20	2200.00	1732.43	.00	1732.64	6.96	3.67	599.52	833.88
*	480.000	102.00	1741.50	1731.00	1725.20	5100.00	1737.09	.00	1737.34	4.39	4.02	1269.44	2433.52
*	480.000	102.00	1741.50	1731.00	1725.20	5993.00	1738.58	.00	1738.82	3.57	3.94	1519.21	3171.65
*	480.000	102.00	1741.50	1731.00	1725.20	5993.00	1738.58	.00	1738.82	3.57	3.94	1519.21	3171.65
	481.000	32.00	.00	.00	1725.20	2200.00	1732.44	.00	1732.69	8.61	4.03	546.09	749.78
	481.000	32.00	.00	.00	1725.20	5100.00	1737.07	.00	1737.39	5.13	4.52	1126.57	2252.08
	481.000	32.00	.00	.00	1725.20	5993.00	1738.56	.00	1738.87	4.31	4.50	1331.23	2887.42
	481.000	32.00	.00	.00	1725.20	5993.00	1738.56	.00	1738.87	4.31	4.50	1331.23	2887.42

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	482.000	205.00	.00	.00	1725.20	2200.00	1732.59	.00	1732.95	15.43	4.83	455.73	560.02
	482.000	205.00	.00	.00	1725.20	5100.00	1737.14	.00	1737.53	7.16	5.65	1010.11	1905.30
	482.000	205.00	.00	.00	1725.20	5993.00	1738.61	.00	1738.99	5.84	4.97	1206.70	2480.45
	482.000	205.00	.00	.00	1725.20	5993.00	1738.61	.00	1738.99	5.84	4.97	1206.70	2480.45

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Boundary condition: WSEL

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	306.000	2500.00	1568.33	.00	.00	.00	288.87	.00
	306.000	5500.00	1571.71	3.38	.00	.00	1328.68	.00
	306.000	7100.00	1572.44	.73	.00	.00	1394.62	.00
	306.000	14300.00	1574.14	1.70	.00	.00	1697.14	.00
*	308.000	2500.00	1573.24	.00	4.91	.00	566.04	631.00
*	308.000	5500.00	1573.91	.67	2.20	.00	775.08	631.00
*	308.000	7100.00	1574.18	.27	1.74	.00	878.16	631.00
*	308.000	14300.00	1575.01	.82	.87	.00	1407.99	631.00
*	310.000	2500.00	1575.85	.00	2.61	.00	1307.81	490.00
*	310.000	5500.00	1576.46	.61	2.54	.00	1768.26	490.00
*	310.000	7100.00	1576.69	.23	2.50	.00	1813.41	490.00
*	310.000	14300.00	1577.44	.76	2.44	.00	1950.84	490.00
	312.000	2500.00	1577.57	.00	1.72	.00	182.03	450.00
*	312.000	5500.00	1577.85	.27	1.39	.00	1237.03	450.00
*	312.000	7100.00	1577.83	-.02	1.19	.00	1231.94	450.00
*	312.000	14300.00	1577.97	.14	.52	.00	1276.72	450.00
*	314.000	2500.00	1579.21	.00	1.63	.00	1113.88	354.00
*	314.000	5500.00	1579.13	-.07	1.29	.00	1098.90	354.00
*	314.000	7100.00	1579.29	.15	1.49	.00	1131.65	354.00
*	314.000	14300.00	1579.99	.71	2.03	.00	1252.86	354.00
	316.000	2500.00	1580.08	.00	.87	.00	861.34	550.00
*	316.000	5500.00	1581.29	1.22	2.16	.00	1243.50	550.00
*	316.000	7100.00	1581.68	.39	2.40	.00	1363.54	550.00
*	316.000	14300.00	1582.83	1.15	2.84	.00	1730.49	550.00
*	318.000	2500.00	1586.59	.00	6.51	.00	1883.25	510.00
*	318.000	5500.00	1586.96	.38	5.67	.00	1901.47	510.00
*	318.000	7100.00	1587.08	.12	5.40	.00	1906.59	510.00
*	318.000	14300.00	1587.60	.51	4.77	.00	2024.46	510.00
	320.000	2500.00	1587.77	.00	1.18	.00	1608.59	310.00
*	320.000	5500.00	1588.36	.59	1.39	.00	1850.06	310.00
*	320.000	7100.00	1588.60	.25	1.52	.00	1870.42	310.00
*	320.000	14300.00	1589.38	.78	1.76	.00	1896.08	310.00
*	322.000	2500.00	1588.78	.00	1.01	.00	62.50	430.00
*	322.000	5500.00	1592.48	3.70	4.12	.00	1510.14	430.00
*	322.000	7100.00	1592.74	.26	4.13	.00	1591.84	430.00
*	322.000	14300.00	1593.47	.74	4.09	.00	1822.93	430.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	324.000	2500.00	1592.92	.00	4.14	.00	71.01	490.00
*	324.000	5500.00	1595.24	2.32	2.76	.00	1636.52	490.00
*	324.000	7100.00	1595.46	.23	2.73	.00	1770.59	490.00
*	324.000	14300.00	1596.13	.66	2.65	.00	1827.57	490.00
*	326.000	2500.00	1597.78	.00	4.86	.00	1843.57	550.00
*	326.000	5500.00	1598.23	.45	2.99	.00	1879.50	550.00
*	326.000	7100.00	1598.31	.09	2.85	.00	1886.44	550.00
	326.000	14300.00	1598.94	.63	2.82	.00	1936.90	550.00
*	328.000	2500.00	1600.77	.00	2.99	.00	1767.94	320.00
*	328.000	5500.00	1601.03	.26	2.80	.00	1777.52	320.00
*	328.000	7100.00	1601.18	.15	2.86	.00	1782.86	320.00
*	328.000	14300.00	1601.67	.49	2.73	.00	1800.82	320.00
*	330.000	2500.00	1603.42	.00	2.65	.00	952.93	400.00
*	330.000	5500.00	1604.05	.63	3.02	.00	1295.37	400.00
	330.000	7100.00	1604.23	.18	3.05	.00	1403.85	400.00
	330.000	14300.00	1605.16	.93	3.49	.00	1632.43	400.00
*	332.000	2500.00	1608.47	.00	5.05	.00	503.96	440.00
*	332.000	5500.00	1609.33	.85	5.28	.00	739.81	440.00
*	332.000	7100.00	1609.62	.30	5.40	.00	821.90	440.00
*	332.000	14300.00	1610.60	.98	5.44	.00	1092.51	440.00
	334.000	2500.00	1611.05	.00	2.58	.00	87.00	410.00
*	334.000	5500.00	1613.65	2.60	4.33	.00	619.11	410.00
*	334.000	7100.00	1614.02	.37	4.40	.00	698.79	410.00
*	334.000	14300.00	1615.29	1.27	4.69	.00	974.56	410.00
*	336.000	2500.00	1616.22	.00	5.16	.00	305.68	440.00
*	336.000	5500.00	1617.24	1.02	3.59	.00	374.24	440.00
*	336.000	7100.00	1617.57	.33	3.55	.00	426.61	440.00
*	336.000	14300.00	1618.76	1.20	3.48	.00	569.80	440.00
*	338.000	2500.00	1627.78	.00	11.57	.00	895.68	542.00
*	338.000	5500.00	1628.27	.49	11.04	.00	1224.97	542.00
*	338.000	7100.00	1628.46	.19	10.90	.00	1269.25	542.00
*	338.000	14300.00	1629.07	.61	10.31	.00	1463.44	542.00
*	340.000	2500.00	1628.51	.00	.72	.00	353.76	440.00
*	340.000	5500.00	1629.48	.97	1.21	.00	886.15	440.00
*	340.000	7100.00	1629.85	.37	1.39	.00	1106.42	440.00
*	340.000	14300.00	1631.01	1.16	1.94	.00	1415.92	440.00
*	342.000	2500.00	1628.62	.00	.11	.00	69.09	533.00
*	342.000	5500.00	1632.32	3.70	2.84	.00	1119.08	533.00
*	342.000	7100.00	1632.68	.36	2.83	.00	1139.02	533.00
*	342.000	14300.00	1633.64	.96	2.63	.00	1385.97	533.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	344.000	2500.00	1635.12	.00	6.50	.00	84.76	510.00
*	344.000	5500.00	1638.18	3.06	5.86	.00	1394.75	510.00
*	344.000	7100.00	1638.45	.27	5.77	.00	1532.12	510.00
*	344.000	14300.00	1639.25	.79	5.60	.00	3348.34	510.00
	346.000	2500.00	1641.24	.00	6.12	.00	109.23	625.00
*	346.000	5500.00	1643.10	1.86	4.92	.00	1591.90	625.00
*	346.000	7100.00	1643.35	.25	4.89	.00	1823.20	625.00
*	346.000	14300.00	1643.96	.61	4.71	.00	2396.25	625.00
*	348.000	2500.00	1645.05	.00	3.81	.00	1324.85	425.00
*	348.000	5500.00	1645.32	.27	2.22	.00	1538.03	425.00
*	348.000	7100.00	1645.56	.24	2.22	.00	1805.86	425.00
	348.000	14300.00	1646.33	.77	2.38	.00	2041.21	425.00
	350.000	2500.00	1646.01	.00	.96	.00	684.23	317.00
*	350.000	5500.00	1646.93	.91	1.61	.00	1327.86	317.00
	350.000	7100.00	1647.14	.21	1.57	.00	1459.85	317.00
	350.000	14300.00	1647.79	.65	1.46	.00	1715.86	317.00
*	352.000	2500.00	1649.14	.00	3.13	.00	873.48	245.00
*	352.000	5500.00	1649.83	.69	2.91	.00	1346.07	245.00
*	352.000	7100.00	1650.02	.19	2.89	.00	1381.14	245.00
*	352.000	14300.00	1650.63	.60	2.84	.00	1510.72	245.00
*	354.000	2500.00	1651.21	.00	2.07	.00	304.67	477.00
*	354.000	5500.00	1652.63	1.42	2.80	.00	637.13	477.00
*	354.000	7100.00	1653.05	.42	3.03	.00	809.67	477.00
*	354.000	14300.00	1653.94	.89	3.32	.00	1137.24	477.00
*	356.000	2500.00	1655.06	.00	3.85	.00	579.79	495.00
*	356.000	5500.00	1655.92	.87	3.29	.00	866.79	495.00
	356.000	7100.00	1656.18	.26	3.13	.00	957.54	495.00
	356.000	14300.00	1657.44	1.26	3.50	.00	1318.87	495.00

	358.000	2500.00	1657.57	.00	2.52	.00	937.06	482.00
	358.000	5500.00	1658.27	.70	2.35	.00	1067.12	482.00
	358.000	7100.00	1658.56	.29	2.38	.00	1103.90	482.00
	358.000	14300.00	1659.33	.77	1.89	.00	1309.50	482.00
	359.000	2500.00	1657.77	.00	.19	.00	568.93	60.00
	359.000	5500.00	1658.42	.66	.15	.00	716.35	60.00
	359.000	7100.00	1658.68	.25	.11	.00	1080.54	60.00
	359.000	14300.00	1659.46	.79	.13	.00	1270.99	60.00
*	359.100	2500.00	1657.97	.00	.21	.00	374.67	79.00
	359.100	5500.00	1658.81	.83	.39	.00	690.83	79.00
*	359.100	7100.00	1659.17	.36	.49	.00	1051.76	79.00
	359.100	14300.00	1659.94	.77	.47	.00	1171.27	79.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	360.000	2500.00	1658.49	.09	.51	.00	880.19	58.00
*	360.000	5500.00	1659.44	.96	.64	.00	1208.11	58.00
*	360.000	7100.00	1659.76	.31	.59	.00	1252.97	58.00
*	360.000	14300.00	1660.68	.92	.74	.00	1290.14	58.00
*	361.000	2500.00	1658.53	.00	.05	.00	1038.71	54.00
	361.000	5500.00	1659.50	.96	.05	.00	1247.49	54.00
	361.000	7100.00	1659.82	.32	.06	.00	1298.92	54.00
	361.000	14300.00	1660.76	.95	.09	.00	1453.32	54.00
*	362.000	2500.00	1664.14	.00	5.61	.00	1178.66	547.00
*	362.000	5500.00	1664.51	.36	5.01	.00	1233.10	547.00
*	362.000	7100.00	1664.66	.15	4.84	.00	1244.93	547.00
*	362.000	14300.00	1665.18	.52	4.41	.00	1284.68	547.00
*	364.000	2500.00	1665.90	.00	1.76	.00	1017.79	551.00
*	364.000	5500.00	1666.69	.79	2.19	.00	1251.81	551.00
*	364.000	7100.00	1667.00	.31	2.34	.00	1360.26	551.00
*	364.000	14300.00	1668.06	1.06	2.88	.00	1615.57	551.00
*	366.000	2500.00	1668.16	.00	2.25	.00	1075.24	460.00
*	366.000	5500.00	1668.57	.42	1.89	.00	1155.80	460.00
*	366.000	7100.00	1668.67	.10	1.67	.00	1181.74	460.00
*	366.000	14300.00	1669.50	.83	1.44	.00	1294.39	460.00
*	368.000	2500.00	1669.89	.00	1.74	.00	1264.82	440.00
*	368.000	5500.00	1670.57	.67	2.00	.00	1516.71	440.00
*	368.000	7100.00	1670.87	.30	2.20	.00	1615.28	440.00
*	368.000	14300.00	1671.73	.86	2.24	.00	1959.45	440.00
	370.000	2500.00	1670.83	.00	.91	.00	1596.10	479.00
	370.000	5500.00	1671.46	.66	.89	.00	1837.25	479.00
	370.000	7100.00	1671.74	.28	.87	.00	2016.74	479.00
	370.000	14300.00	1672.67	.93	.94	.00	2645.28	479.00
*	372.000	2500.00	1673.06	.00	2.26	.00	1808.49	571.00
*	372.000	5500.00	1673.38	.32	1.92	.00	1993.77	571.00
*	372.000	7100.00	1673.54	.16	1.81	.00	2043.83	571.00
*	372.000	14300.00	1674.19	.65	1.52	.00	2228.68	571.00
*	374.000	2500.00	1674.11	.00	1.04	.00	1866.97	414.00
*	374.000	5500.00	1674.66	.55	1.28	.00	1888.31	414.00
*	374.000	7100.00	1674.88	.22	1.34	.00	1895.67	414.00
*	374.000	14300.00	1675.65	.77	1.46	.00	2015.52	414.00
*	376.000	2500.00	1675.15	.00	1.05	.00	822.35	492.00
*	376.000	5500.00	1675.88	.73	1.22	.00	1527.61	492.00
*	376.000	7100.00	1676.12	.24	1.24	.00	1532.40	492.00
*	376.000	14300.00	1676.78	.66	1.12	.00	1546.23	492.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	378.000	2500.00	1676.76	.00	1.60	.00	153.09	453.00
	378.000	5500.00	1677.76	1.00	1.88	.00	1280.63	453.00
	378.000	7100.00	1678.03	.27	1.91	.00	1283.03	453.00
	378.000	14300.00	1679.01	.98	2.23	.00	1292.32	453.00
*	380.000	2500.00	1676.04	.00	1.28	.00	148.10	512.00
	380.000	5500.00	1679.62	1.59	1.97	.00	316.89	512.00
	380.000	7100.00	1680.06	.43	2.03	.00	376.58	512.00
*	380.000	14300.00	1681.72	1.67	2.71	.00	604.85	512.00
*	382.000	2500.00	1679.46	.00	1.43	.00	150.17	509.00
*	382.000	5500.00	1681.49	2.03	1.87	.00	339.64	509.00
*	382.000	7100.00	1682.23	.74	2.18	.00	364.00	509.00
*	382.000	14300.00	1684.52	2.29	2.80	.00	1734.17	509.00
	384.000	2500.00	1680.14	.00	.67	.00	149.84	512.00

	384.000	5500.00	1682.25	2.11	.76	.00	158.32	512.00
	384.000	7100.00	1683.00	.75	.77	.00	161.86	512.00
	384.000	14300.00	1685.25	2.26	.74	.00	486.11	512.00
	386.000	2500.00	1680.92	.00	.78	.00	146.73	535.00
	386.000	5500.00	1683.20	2.28	.95	.00	158.74	535.00
	386.000	7100.00	1684.08	.88	1.09	.00	164.17	535.00
*	386.000	14300.00	1687.07	2.99	1.81	.00	1423.87	535.00
*	388.000	2500.00	1681.63	.00	.71	.00	159.23	458.00
	388.000	5500.00	1684.08	2.46	.88	.00	170.83	458.00
	388.000	7100.00	1685.06	.98	.98	.00	174.22	458.00
	388.000	14300.00	1687.44	2.38	.37	.00	590.86	458.00
	390.000	2500.00	1682.14	.00	.51	.00	156.42	532.00
	390.000	5500.00	1684.67	2.54	.59	.00	168.76	532.00
	390.000	7100.00	1685.69	1.02	.63	.00	173.04	532.00
	390.000	14300.00	1688.71	3.01	1.27	.00	656.51	532.00
	392.000	2500.00	1682.78	.00	.65	.00	150.11	577.00
	392.000	5500.00	1685.37	2.59	.70	.00	163.02	577.00
	392.000	7100.00	1686.43	1.06	.74	.00	169.27	577.00
	392.000	14300.00	1689.68	3.25	.98	.00	480.51	577.00
	394.000	2500.00	1683.37	.00	.59	.00	152.71	448.00
	394.000	5500.00	1685.96	2.59	.59	.00	165.12	448.00
	394.000	7100.00	1687.04	1.08	.61	.00	170.91	448.00
	394.000	14300.00	1690.60	3.56	.92	.00	537.82	448.00
	396.000	2500.00	1684.26	.00	.89	.00	147.87	507.00
	396.000	5500.00	1686.78	2.52	.82	.00	160.38	507.00
	396.000	7100.00	1687.86	1.07	.82	.00	165.85	507.00
	396.000	14300.00	1691.39	3.53	.78	.00	363.44	507.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	398.000	2500.00	1684.58	.00	.32	.00	167.59	352.00
*	398.000	5500.00	1687.27	2.69	.49	.00	192.31	352.00
*	398.000	7100.00	1688.41	1.14	.59	.00	212.00	352.00
*	398.000	14300.00	1692.14	3.73	.75	.00	846.14	352.00
	400.000	2500.00	1684.58	.00	-.01	.00	124.41	170.00
	400.000	5500.00	1687.24	2.67	-.05	.00	124.44	170.00
	400.000	7100.00	1688.36	1.12	-.05	.00	124.46	170.00
	400.000	14300.00	1692.21	3.85	.07	.00	1442.31	170.00
	400.100	2500.00	1684.58	.00	.01	.00	124.41	88.70
	400.100	5500.00	1687.45	2.86	.20	.00	124.45	88.70
	400.100	7100.00	1688.80	1.35	.44	.00	124.46	88.70
*	400.100	14300.00	1694.50	5.70	2.28	.00	1844.84	88.70
	401.000	2500.00	1684.58	.00	.00	.00	158.64	218.00
	401.000	5500.00	1687.48	2.90	.04	.00	176.08	218.00
	401.000	7100.00	1688.87	1.39	.08	.00	203.97	218.00
	401.000	14300.00	1694.37	5.50	-.13	.00	599.82	218.00
*	402.000	2500.00	1684.36	.00	-.22	.00	141.79	83.00
*	402.000	5500.00	1687.26	2.91	-.22	.00	159.18	83.00
*	402.000	7100.00	1688.66	1.40	-.21	.00	167.57	83.00
*	402.000	14300.00	1694.18	5.52	-.19	.00	416.70	83.00
*	404.000	2500.00	1684.51	.00	.16	.00	134.88	252.00
*	404.000	5500.00	1687.07	2.56	-.19	.00	150.28	252.00
*	404.000	7100.00	1688.51	1.44	-.15	.00	158.88	252.00
	404.000	14300.00	1694.04	5.53	-.14	.00	402.82	252.00
*	406.000	2500.00	1686.27	.00	1.75	.00	133.61	282.00
*	406.000	5500.00	1687.82	1.56	.75	.00	143.63	282.00
*	406.000	7100.00	1688.52	.70	.01	.00	147.65	282.00
*	406.000	14300.00	1693.77	5.25	-.28	.00	189.44	282.00
	408.000	2500.00	1687.16	.00	.89	.00	136.22	303.00
	408.000	5500.00	1688.60	1.44	.78	.00	144.81	303.00
	408.000	7100.00	1689.15	.55	.63	.00	148.05	303.00
	408.000	14300.00	1693.80	4.65	.03	.00	175.73	303.00
*	410.000	2500.00	1688.41	.00	1.25	.00	134.88	318.00
*	410.000	5500.00	1689.97	1.56	1.37	.00	144.21	318.00
*	410.000	7100.00	1690.65	.68	1.50	.00	148.31	318.00
*	410.000	14300.00	1693.19	2.54	-.61	.00	163.53	318.00
*	412.000	2500.00	1689.32	.00	.91	.00	155.60	215.00
*	412.000	5500.00	1691.17	1.85	1.20	.00	165.54	215.00
*	412.000	7100.00	1692.30	.83	1.35	.00	169.98	215.00
*	412.000	14300.00	1695.03	3.03	1.84	.00	186.22	215.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	414.000	2500.00	1693.16	.00	3.84	.00	82.93	497.00
*	414.000	5500.00	1695.34	2.18	4.17	.00	98.82	497.00
*	414.000	7100.00	1696.29	.95	4.29	.00	103.96	497.00
*	414.000	14300.00	1699.46	3.18	4.43	.00	115.59	497.00
*	416.000	2500.00	1696.20	.00	3.04	.00	86.34	353.00
*	416.000	5500.00	1698.71	2.51	3.37	.00	94.14	353.00
*	416.000	7100.00	1699.69	.98	3.40	.00	96.68	353.00
	416.000	14300.00	1703.10	3.42	3.64	.00	144.50	353.00
	418.000	2500.00	1697.15	.00	.95	.00	72.65	274.00
	418.000	5500.00	1699.63	2.48	.92	.00	79.86	274.00
	418.000	7100.00	1700.61	.98	.92	.00	82.31	274.00
*	418.000	14300.00	1705.81	5.20	2.71	.00	541.78	274.00
	420.000	2500.00	1700.30	.00	3.15	.00	82.54	570.00
	420.000	5500.00	1703.26	2.96	3.63	.00	95.60	570.00
*	420.000	7100.00	1704.57	1.31	3.96	.00	102.09	570.00
	420.000	14300.00	1708.29	3.72	2.46	.00	542.25	570.00
*	422.000	2500.00	1701.69	.00	1.40	.00	58.67	319.00
*	422.000	5500.00	1704.64	2.95	1.39	.00	81.74	319.00
*	422.000	7100.00	1705.89	1.25	1.32	.00	95.34	319.00
*	422.000	14300.00	1710.24	4.35	1.96	.00	228.66	319.00
*	424.000	2200.00	1705.84	.00	4.15	.00	154.51	458.00
*	424.000	4943.92	1708.73	2.88	4.08	.00	254.29	458.00
*	424.000	5504.58	1709.90	1.17	4.01	.00	276.93	458.00
*	424.000	5504.58	1713.37	3.47	3.14	.00	720.93	458.00
	426.000	2200.00	1706.58	.00	.74	.00	178.93	268.00
	426.000	4943.92	1709.11	2.53	.38	.00	239.56	268.00
	426.000	5504.58	1710.14	1.03	.24	.00	340.01	268.00
	426.000	5504.58	1713.41	3.27	.04	.00	807.16	268.00
*	428.000	2200.00	1710.34	.00	3.76	.00	171.76	485.00
*	428.000	4943.92	1711.60	1.26	2.50	.00	199.41	485.00
*	428.000	5504.58	1712.83	.23	1.69	.00	203.30	485.00
*	428.000	5504.58	1713.28	1.44	-.14	.00	226.36	485.00
*	430.000	2200.00	1712.44	.00	2.10	.00	178.08	182.00
	430.000	4943.92	1713.77	1.33	2.17	.00	195.62	182.00
*	430.000	5504.58	1714.04	.27	2.31	.00	425.32	182.00
	430.000	5504.58	1713.96	-.08	.68	.00	422.69	182.00
*	432.000	2200.00	1714.29	.00	1.85	.00	348.04	565.00
*	432.000	4943.92	1715.85	1.57	2.08	.00	397.87	565.00
*	432.000	5504.58	1715.81	-.05	1.77	.00	397.57	565.00
*	432.000	5504.58	1715.84	.03	1.88	.00	397.78	565.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	438.000	2200.00	1715.25	.00	.96	.00	137.73	494.00
*	438.000	4943.92	1716.49	1.24	.64	.00	148.97	494.00
*	438.000	5504.58	1716.63	.14	.93	.00	149.54	494.00
*	438.000	5504.58	1716.64	.01	.80	.00	149.57	494.00
	439.000	2200.00	1715.29	.00	.04	.00	132.72	28.00
	439.000	4943.92	1716.50	1.21	.01	.00	133.03	28.00
	439.000	5504.58	1716.64	.14	.01	.00	133.03	28.00
	439.000	5504.58	1716.65	.01	.00	.00	133.03	28.00
	439.100	2200.00	1715.19	.00	-.10	.00	132.02	1.00
*	439.100	4943.92	1716.41	1.22	-.10	.00	133.01	1.00
*	439.100	5504.58	1716.67	.26	.03	.00	133.02	1.00
*	439.100	5504.58	1716.67	.00	.03	.00	133.02	1.00
*	440.000	2200.00	1716.49	.00	1.30	.00	114.73	104.00
*	440.000	4943.92	1718.20	1.70	1.79	.00	131.27	104.00
*	440.000	5504.58	1718.45	.26	1.78	.00	131.81	104.00
*	440.000	5504.58	1718.45	.00	1.78	.00	131.81	104.00
*	440.100	2200.00	1717.22	.00	.73	.00	121.28	1.00
*	440.100	4943.92	1719.26	2.03	1.06	.00	132.99	1.00
*	440.100	5504.58	1719.61	.35	1.15	.00	133.00	1.00
*	440.100	5504.58	1719.61	.00	1.15	.00	133.00	1.00
*	441.000	2200.00	1717.85	.00	.63	.00	193.70	31.00
*	441.000	4943.92	1720.22	2.37	.96	.00	193.70	31.00
*	441.000	5504.58	1720.63	.41	1.02	.00	193.70	31.00
*	441.000	5504.58	1720.63	.00	1.02	.00	193.70	31.00
	442.000	2200.00	1718.21	.00	.36	.00	274.51	466.00
	442.000	5100.00	1720.62	2.42	.41	.00	435.20	466.00
	442.000	5993.00	1721.04	.42	.41	.00	461.75	466.00
	442.000	5993.00	1721.04	.00	.41	.00	461.75	466.00

*	444.000	2200.00	1718.35	.00	.14	.00	145.13	299.00
*	444.000	5100.00	1720.42	2.07	-.21	.00	300.53	299.00
*	444.000	5993.00	1720.80	.38	-.24	.00	353.17	299.00
*	444.000	5993.00	1720.80	.00	-.24	.00	353.17	299.00
	446.000	2200.00	1720.37	.00	2.02	.00	138.34	390.00
*	446.000	5100.00	1721.82	1.45	1.46	.00	165.40	390.00
*	446.000	5993.00	1722.26	.44	1.46	.00	187.49	390.00
*	446.000	5993.00	1722.26	.00	1.46	.00	187.49	390.00
*	448.000	2200.00	1723.02	.00	2.65	.00	138.34	595.00
*	448.000	5100.00	1724.88	1.86	3.06	.00	201.42	595.00
*	448.000	5993.00	1725.22	.34	2.96	.00	215.57	595.00
*	448.000	5993.00	1725.22	.00	2.96	.00	215.57	595.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
450.000	2200.00	1724.33	.00	1.31	.00	138.99	527.00
450.000	5100.00	1726.23	1.89	1.35	.00	195.07	527.00
450.000	5993.00	1726.62	.39	1.39	.00	212.92	527.00
450.000	5993.00	1726.62	.00	1.39	.00	212.92	527.00
* 452.000	2200.00	1725.51	.00	1.17	.00	137.91	517.00
452.000	5100.00	1727.55	2.05	1.37	.00	161.99	517.00
452.000	5993.00	1728.02	.46	1.40	.00	169.93	517.00
452.000	5993.00	1728.02	.00	1.40	.00	169.93	517.00
454.000	2200.00	1726.14	.00	.63	.00	134.54	500.00
454.000	5100.00	1728.34	2.21	.79	.00	154.41	500.00
454.000	5993.00	1728.86	.52	.85	.00	159.96	500.00
454.000	5993.00	1728.86	.00	.85	.00	159.96	500.00
456.000	2200.00	1726.69	.00	.55	.00	131.12	510.00
456.000	5100.00	1728.97	2.28	.63	.00	151.78	510.00
456.000	5993.00	1729.51	.54	.69	.00	156.26	510.00
456.000	5993.00	1729.51	.00	.69	.00	156.26	510.00
458.000	2200.00	1727.51	.00	.82	.00	128.85	392.00
458.000	5100.00	1729.95	2.44	.99	.00	150.55	392.00
458.000	5993.00	1730.53	.58	1.03	.00	153.95	392.00
458.000	5993.00	1730.53	.00	1.03	.00	153.95	392.00
460.000	2200.00	1728.12	.00	.61	.00	127.83	357.00
460.000	5100.00	1730.72	2.61	.77	.00	148.77	357.00
460.000	5993.00	1731.33	.61	.80	.00	153.38	357.00
460.000	5993.00	1731.33	.00	.80	.00	153.38	357.00
468.000	2200.00	1728.76	.00	.64	.00	109.41	274.00
468.000	5100.00	1731.42	2.66	.69	.00	135.43	274.00
468.000	5993.00	1732.04	.63	.71	.00	141.54	274.00
468.000	5993.00	1732.04	.00	.71	.00	141.54	274.00
468.900	2200.00	1728.91	.00	.15	.00	108.06	47.00
468.900	5100.00	1731.57	2.66	.16	.00	127.66	47.00
468.900	5993.00	1732.19	.62	.15	.00	132.84	47.00
468.900	5993.00	1732.19	.00	.15	.00	132.84	47.00
469.000	2200.00	1728.90	.00	-.01	.00	106.87	1.00
469.000	5100.00	1731.53	2.64	-.04	.00	122.97	1.00
469.000	5993.00	1732.14	.61	-.05	.00	126.97	1.00
469.000	5993.00	1732.14	.00	-.05	.00	126.97	1.00
470.000	2200.00	1729.33	.00	.44	.00	125.60	109.00
470.000	5100.00	1732.24	2.91	.71	.00	136.83	109.00
470.000	5993.00	1733.05	.81	.91	.00	186.08	109.00
470.000	5993.00	1733.05	.00	.91	.00	186.08	109.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
470.100	2200.00	1729.37	.00	.04	.00	125.72	1.00
470.100	5100.00	1732.32	2.94	.08	.00	137.11	1.00
* 470.100	5993.00	1733.17	.85	.11	.00	139.50	1.00
* 470.100	5993.00	1733.17	.00	.11	.00	139.50	1.00
471.000	2200.00	1729.39	.00	.02	.00	110.31	41.00
471.000	5100.00	1732.32	2.93	.01	.00	136.68	41.00
471.000	5993.00	1733.17	.85	.01	.00	144.02	41.00
471.000	5993.00	1733.17	.00	.01	.00	144.02	41.00
472.000	2200.00	1729.77	.00	.38	.00	88.56	340.00
472.000	5100.00	1732.66	2.88	.33	.00	110.19	340.00
472.000	5993.00	1733.46	.81	.29	.00	116.86	340.00
472.000	5993.00	1733.46	.00	.29	.00	116.86	340.00

	474.000	2200.00	1730.73	.00	.95	.00	80.40	392.00
	474.000	5100.00	1733.58	2.86	.93	.00	97.92	392.00
	474.000	5993.00	1734.33	.75	.87	.00	102.16	392.00
	474.000	5993.00	1734.33	.00	.87	.00	102.16	392.00
*	478.000	2200.00	1732.12	.00	1.39	.00	95.65	415.00
*	478.000	5100.00	1735.23	3.11	1.65	.00	111.85	415.00
*	478.000	5993.00	1736.00	.77	1.67	.00	115.90	415.00
*	478.000	5993.00	1736.00	.00	1.67	.00	115.90	415.00
	479.100	2200.00	1732.32	.00	.20	.00	115.95	44.00
	479.100	5100.00	1735.59	3.27	.36	.00	139.33	44.00
	479.100	5993.00	1736.40	.82	.40	.00	147.31	44.00
	479.100	5993.00	1736.40	.00	.40	.00	147.31	44.00
	480.000	2200.00	1732.43	.00	.12	.00	125.29	102.00
*	480.000	5100.00	1737.09	4.66	1.50	.00	163.31	102.00
*	480.000	5993.00	1738.58	1.49	2.18	.00	171.63	102.00
*	480.000	5993.00	1738.58	.00	2.18	.00	171.63	102.00
	481.000	2200.00	1732.44	.00	.00	.00	115.78	32.00
	481.000	5100.00	1737.07	4.63	-.02	.00	134.78	32.00
	481.000	5993.00	1738.56	1.49	-.02	.00	139.64	32.00
	481.000	5993.00	1738.56	.00	-.02	.00	139.64	32.00
	482.000	2200.00	1732.59	.00	.15	.00	113.53	205.00
	482.000	5100.00	1737.14	4.55	.07	.00	130.53	205.00
	482.000	5993.00	1738.61	1.47	.05	.00	136.64	205.00
	482.000	5993.00	1738.61	.00	.05	.00	136.64	205.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 308.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 308.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 308.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 308.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 308.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 308.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 308.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 308.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 308.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 308.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 308.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 308.000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO= 310.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 310.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 310.000 PROFILE= 3 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 310.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 312.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 312.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 312.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 312.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 312.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 312.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO= 312.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 314.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO= 314.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 314.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 314.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 314.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 314.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 314.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 314.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 314.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 314.000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO= 316.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 316.000 PROFILE= 3 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 316.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 318.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 318.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 318.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 318.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 318.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 318.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO= 318.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 318.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 318.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION SECNO=    322.000  PROFILE=  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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 CAUTION SECNO=    326.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    326.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    326.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    326.000  PROFILE=  3  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    326.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
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 CAUTION SECNO=    328.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
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 CAUTION SECNO=    352.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
1
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 CAUTION SECNO=    352.000  PROFILE=  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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 CAUTION SECNO=    362.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
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 CAUTION SECNO=    362.000  PROFILE=  3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    362.000  PROFILE=  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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 CAUTION SECNO=    362.000  PROFILE=  4  PROBABLE MINIMUM SPECIFIC ENERGY
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 CAUTION SECNO=    366.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
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 CAUTION SECNO=    366.000  PROFILE=  3  MINIMUM SPECIFIC ENERGY
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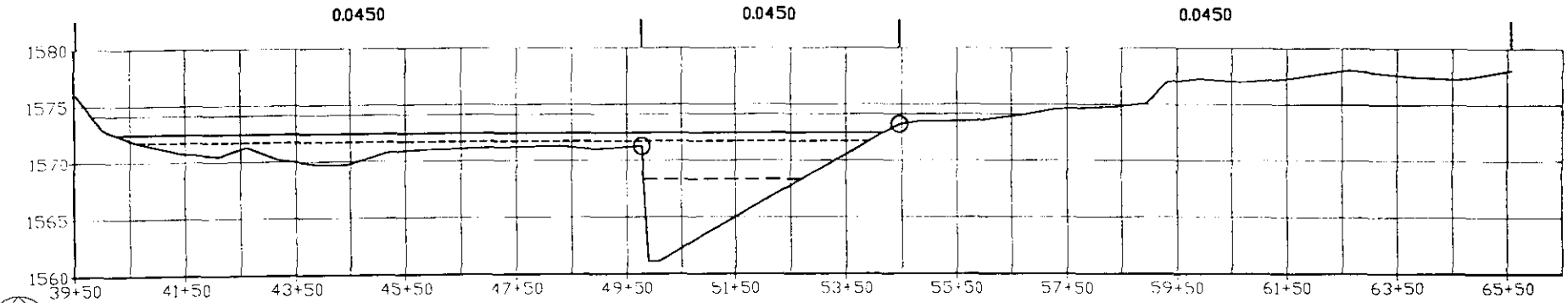


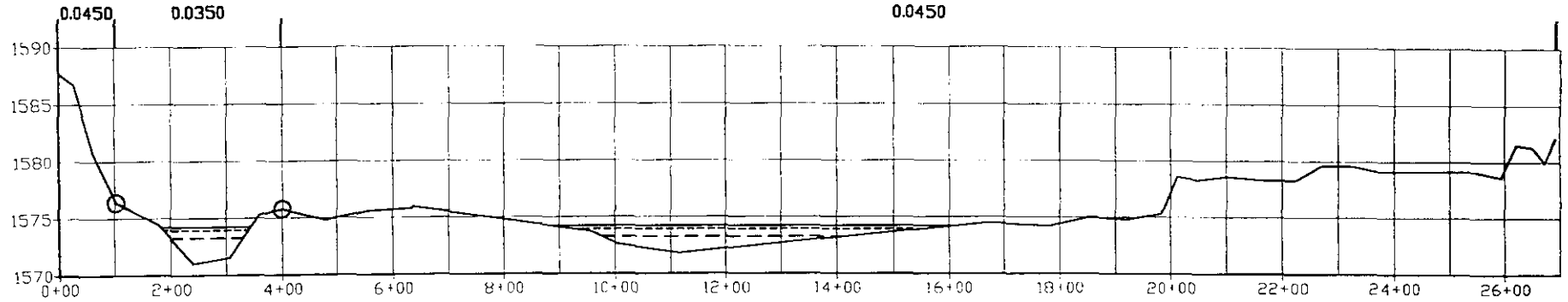
2 306

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1568.33 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1571.71 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1572.44 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1574.14 ft



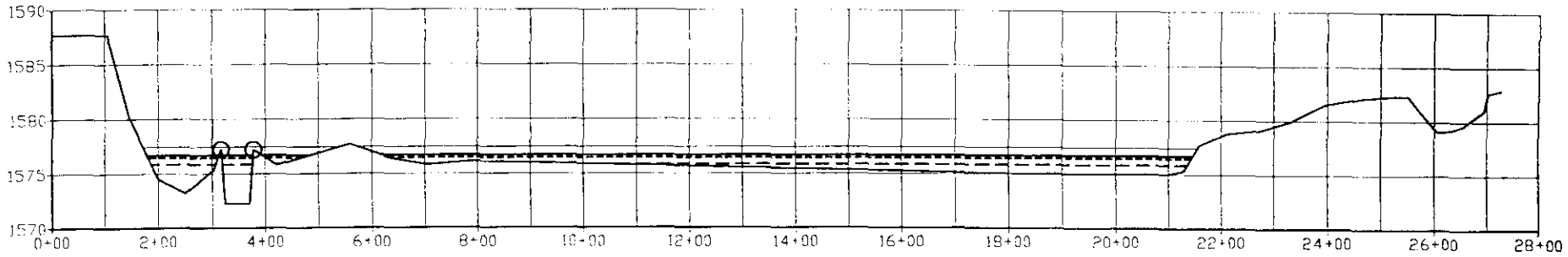
308

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1573.24 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1573.91 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1574.18 ft

Profile 4
Flow Discharge = 14300.00 cfs
..—— 500-YEAR WSEL = 1575.00 ft



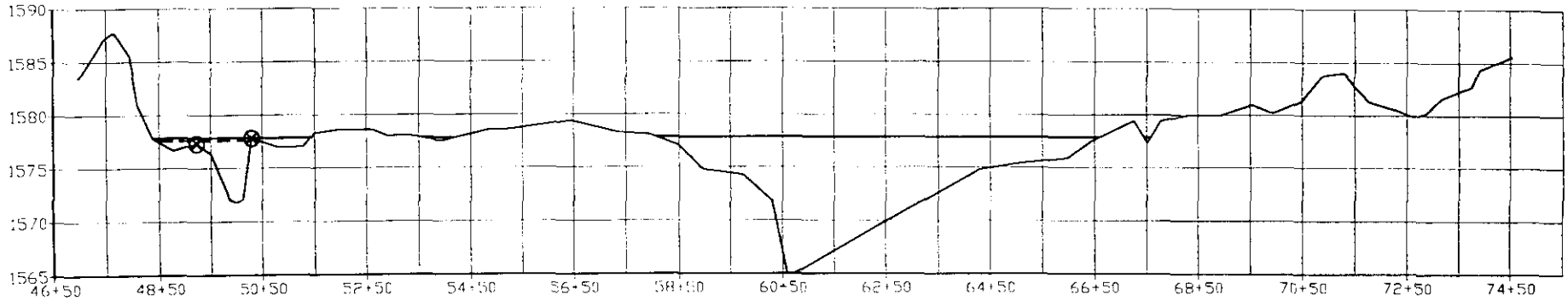
310

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1575.85 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1576.45 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1576.68 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1577.44 ft



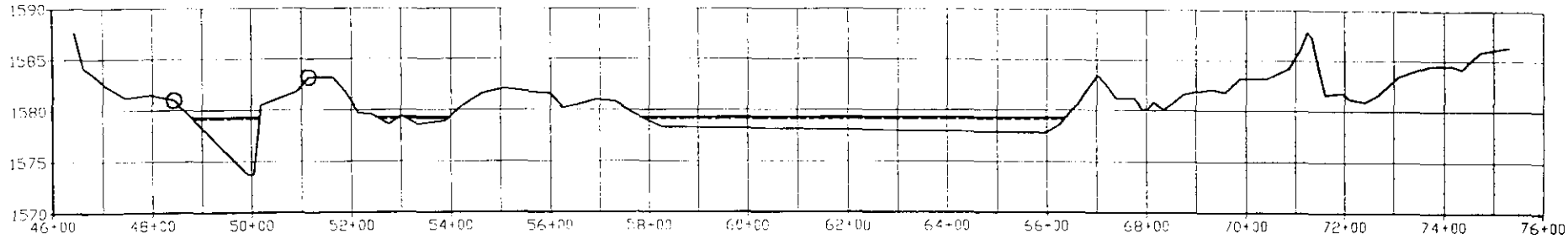
312

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1577.57 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1577.84 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1577.83 ft

Profile 4
Flow Discharge = 14300.00 cfs
— 500-YEAR WSEL = 1577.96 ft



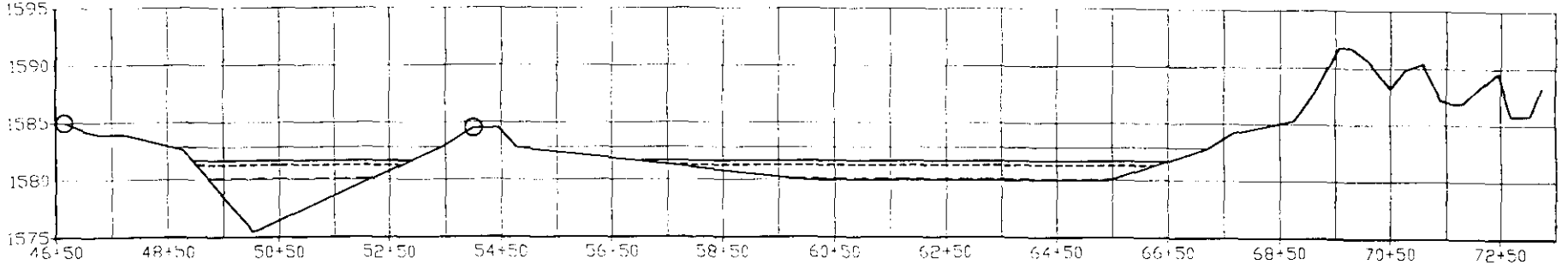
314

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1579.20 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1579.13 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1579.28 ft

Profile 4
Flow Discharge = 14300.00 cfs
– 500-YEAR WSEL = 1579.99 ft



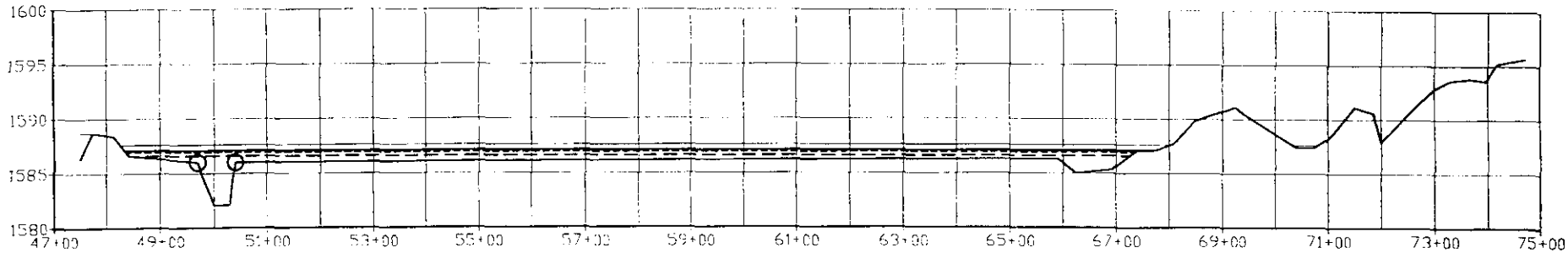
316

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1580.07 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1581.29 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1581.68 ft

Profile 4
Flow Discharge = 14300.00 cfs
— · — 500-YEAR WSEL = 1582.83 ft



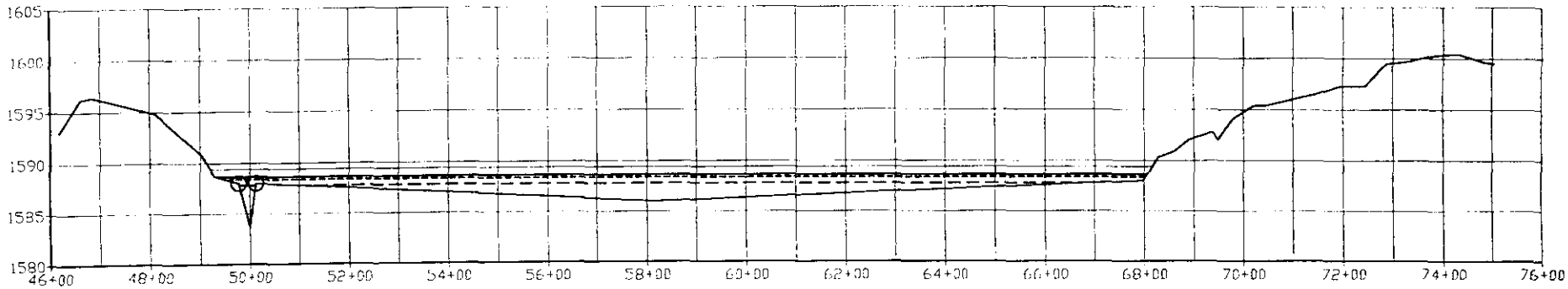
318

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1586.59 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1586.96 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1587.08 ft

Profile 4
Flow Discharge = 14300.00 cfs
— · — · 500-YEAR WSEL = 1587.59 ft



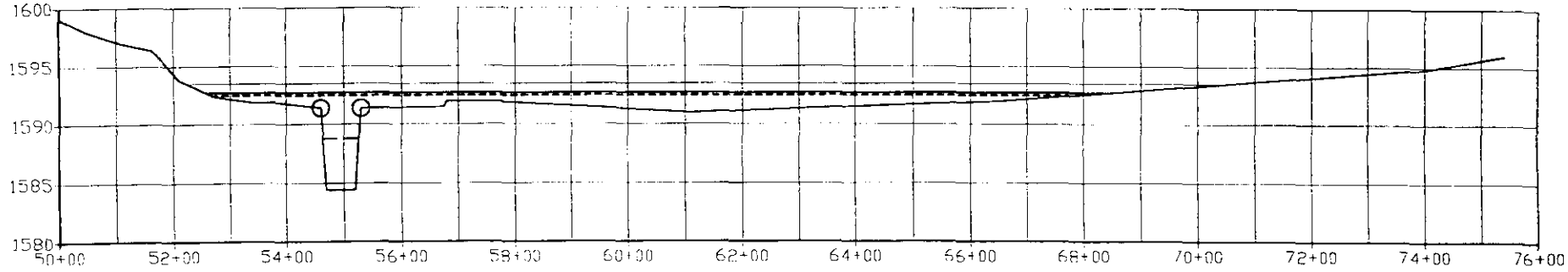
320

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1587.76 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1588.35 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1588.60 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1589.38 ft



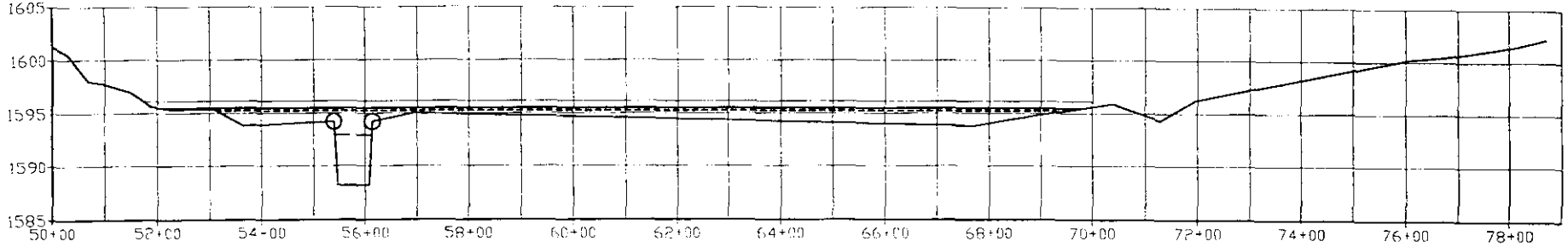
322

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1588.77 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1592.47 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1592.73 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1593.47 ft



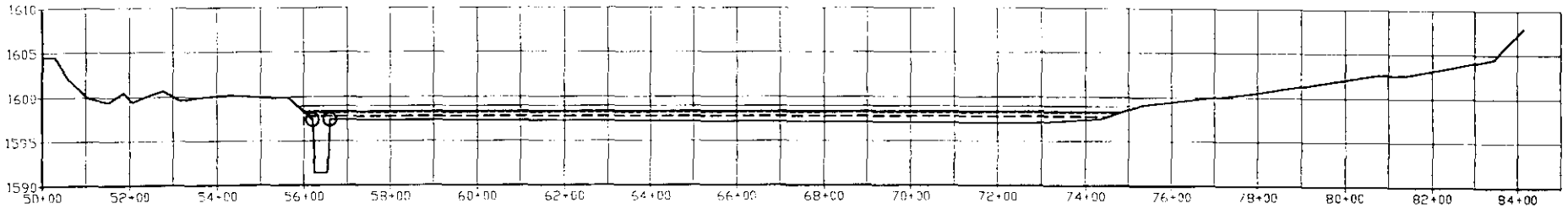
324

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1592.91 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1595.23 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1595.46 ft

Profile 4
Flow Discharge = 14300.00 cfs
— — 500-YEAR WSEL = 1596.12 ft



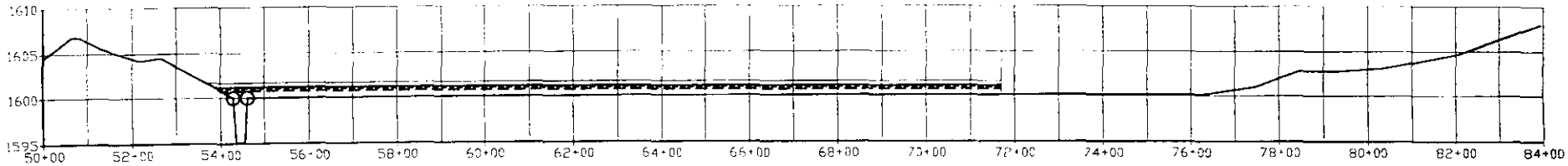
326

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1597.78 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1598.22 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1598.31 ft

Profile 4
Flow Discharge = 14300.00 cfs
..... 500-YEAR WSEL = 1598.94 ft



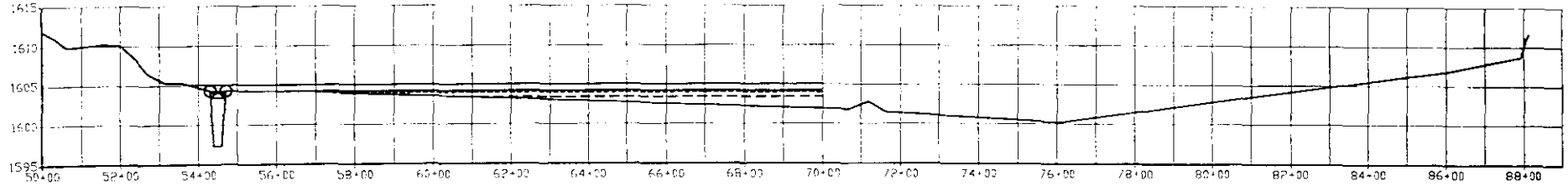
328

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1600.76 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1601.03 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1601.17 ft

Profile 4
Flow Discharge = 14300.00 cfs
—— 500-YEAR WSEL = 1601.67 ft



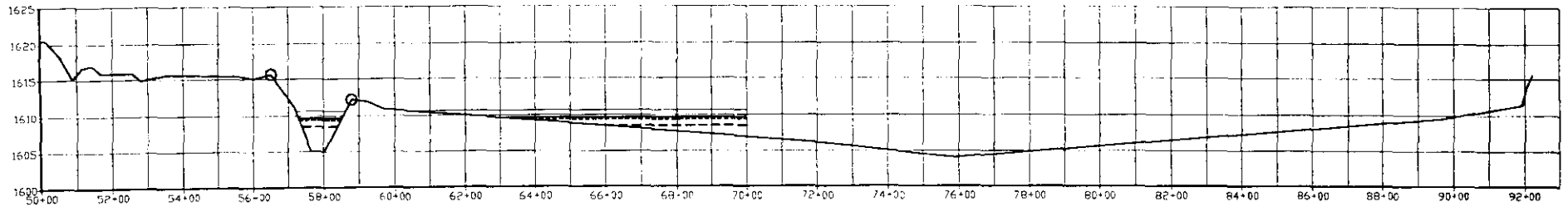
330

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1603.42 ft

Profile 2
Flow Discharge = 3500.00 cfs
----- 50-YEAR WSEL = 1604.05 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1604.22 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1605.15 ft



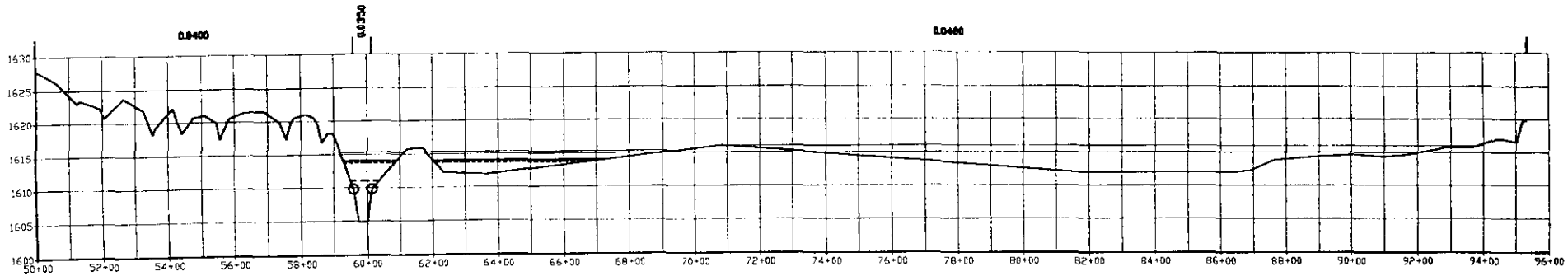
332

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1608.47 Ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1609.32 Ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1609.62 Ft

Profile 4
Flow Discharge = 14300.00 cfs
— . — 500-YEAR WSEL = 1610.59 Ft

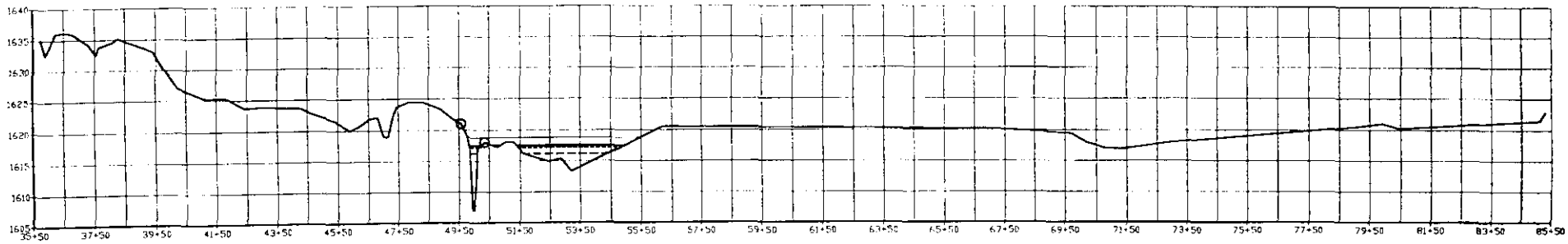


Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1611.05 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1613.65 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1614.01 ft

Profile 4
Flow Discharge = 14300.00 cfs
—— 500-YEAR WSEL = 1615.28 ft



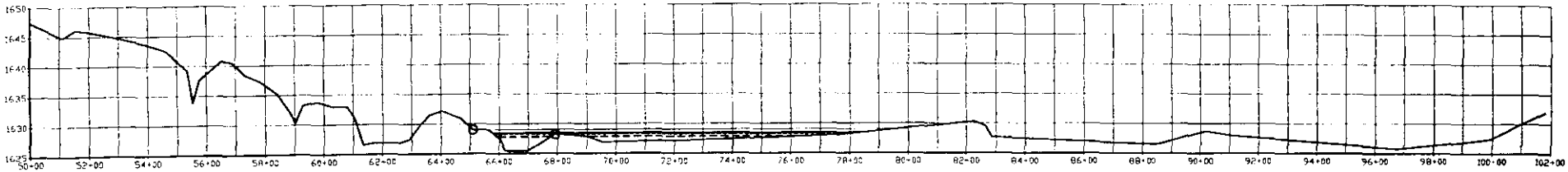
336

Profile 1
Flow Discharge = 2500.00 cfs
10-YEAR WSEL = 1626.21 Ft

Profile 2
Flow Discharge = 3500.00 cfs
50-YEAR WSEL = 1617.23 Ft

Profile 3
Flow Discharge = 7100.00 cfs
100-YEAR WSEL = 1617.56 Ft

Profile 4
Flow Discharge = 14300.00 cfs
500-YEAR WSEL = 1618.76 Ft



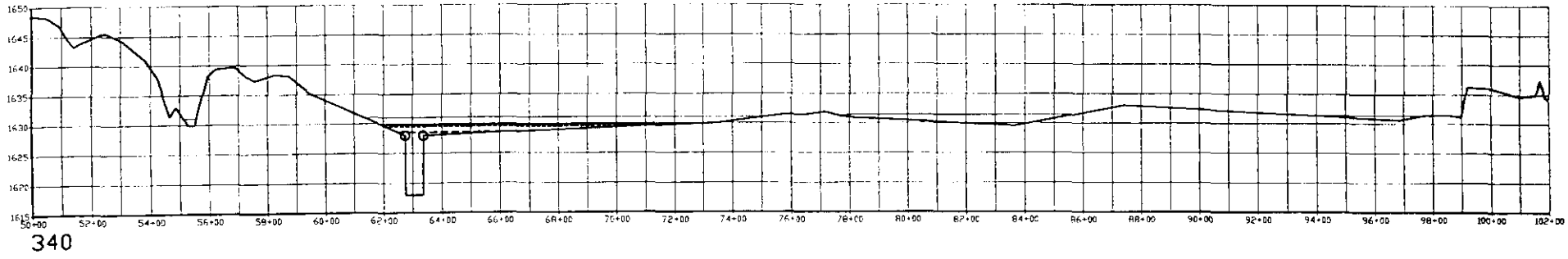
338

Profile 1
Flow Discharge = 2580.00 cfs
10-YEAR WSEL = 1627.78 ft

Profile 2
Flow Discharge = 3580.00 cfs
50-YEAR WSEL = 1628.27 ft

Profile 3
Flow Discharge = 7100.00 cfs
100-YEAR WSEL = 1628.46 ft

Profile 4
Flow Discharge = 14300.00 cfs
500-YEAR WSEL = 1629.87 ft



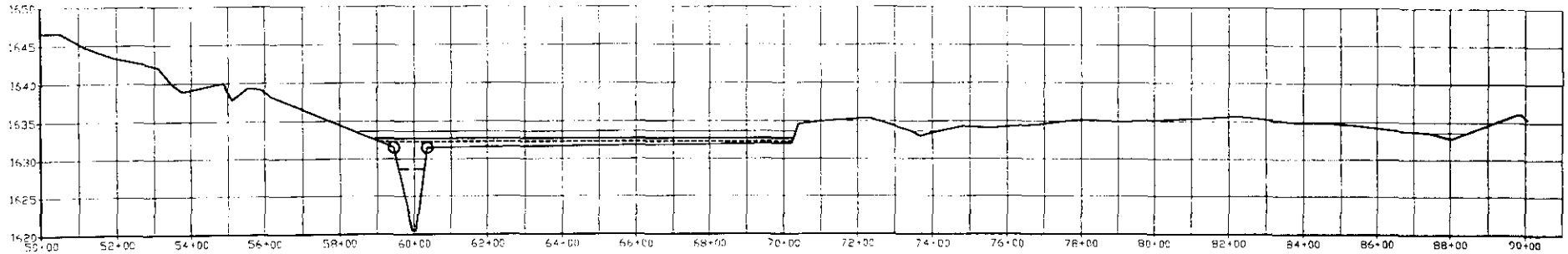
340

Profile 1
Flow Discharge = 2580.00 cfs
- - - 10-YEAR WSEL = 1628.56 Ft

Profile 2
Flow Discharge = 3580.00 cfs
----- 50-YEAR WSEL = 1629.47 Ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1629.85 Ft

Profile 4
Flow Discharge = 14200.00 cfs
- 500-YEAR WSEL = 1631.01 Ft



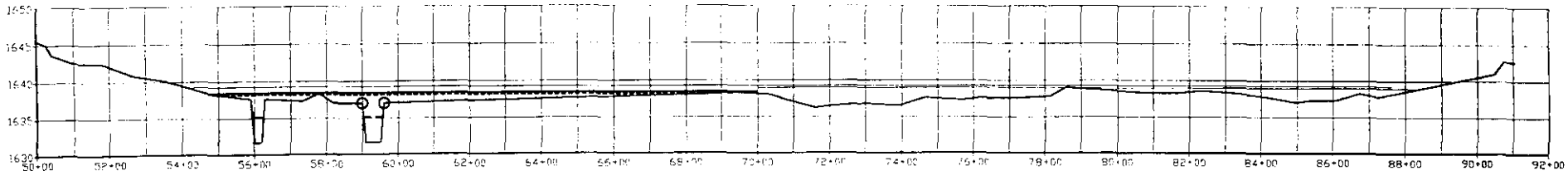
342

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1628.61 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1632.32 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1632.68 ft

Profile 4
Flow Discharge = 14300.00 cfs
— — — 500-YEAR WSEL = 1633.64 ft



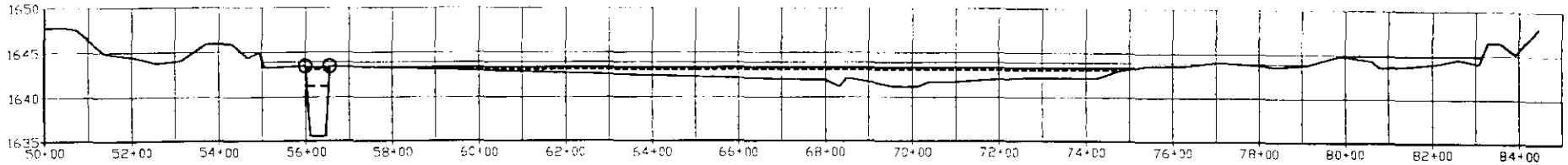
344

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1635.11 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1638.18 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1638.45 ft

Profile 4
Flow Discharge = 14300.00 cfs
. . . 500-YEAR WSEL = 1639.24 ft



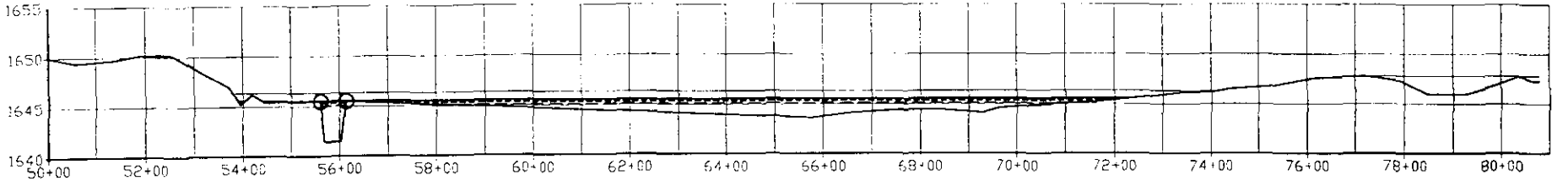
346

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1641.23 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1643.10 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1643.34 ft

Profile 4
Flow Discharge = 14300.00 cfs
- - - 500-YEAR WSEL = 1643.95 ft



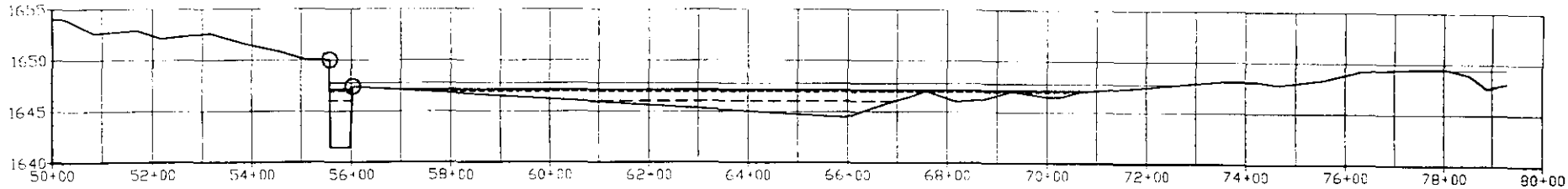
348

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1645.05 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1645.32 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1645.56 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1646.33 ft



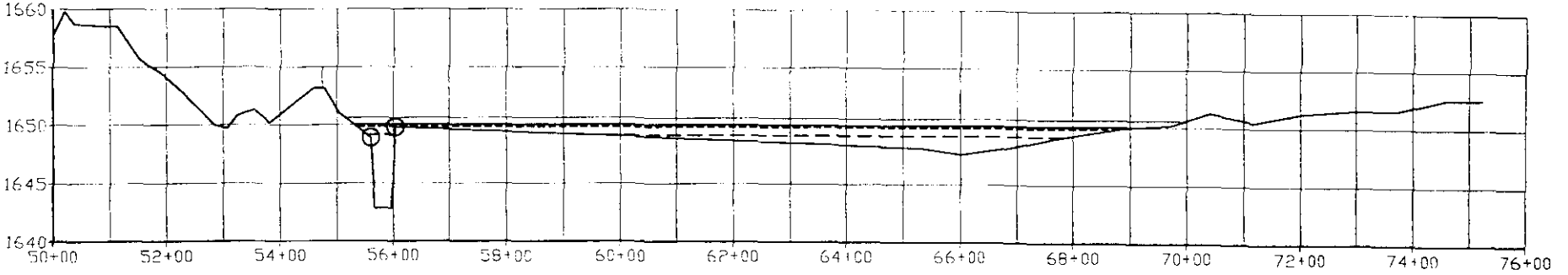
350

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1646.01 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1646.92 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1647.13 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1647.78 ft



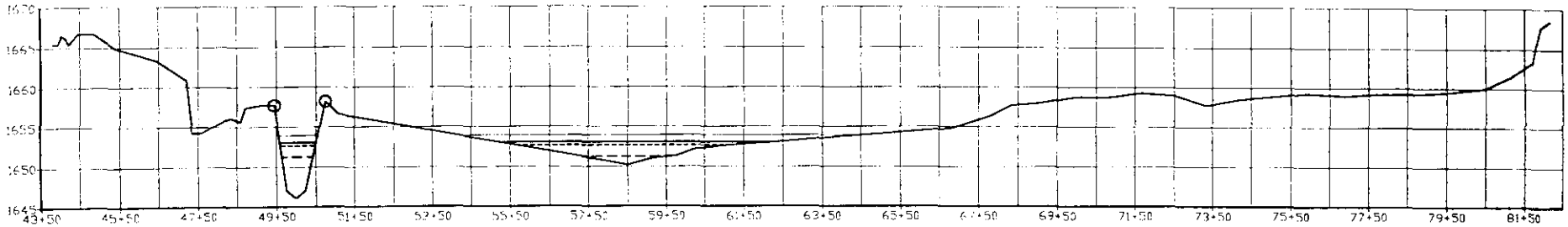
352

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1649.14 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1649.83 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1650.02 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1650.62 ft



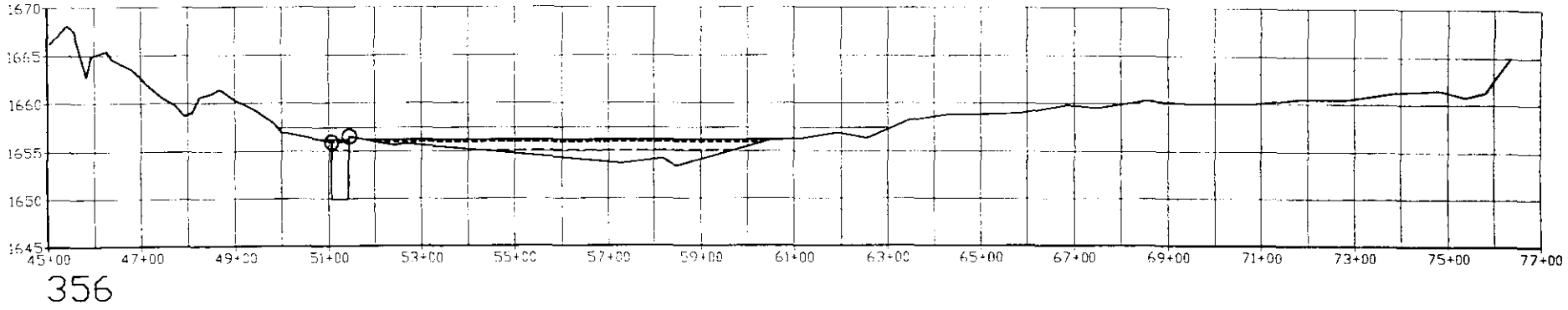
354

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1651.21 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1652.63 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1653.05 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1653.94 ft



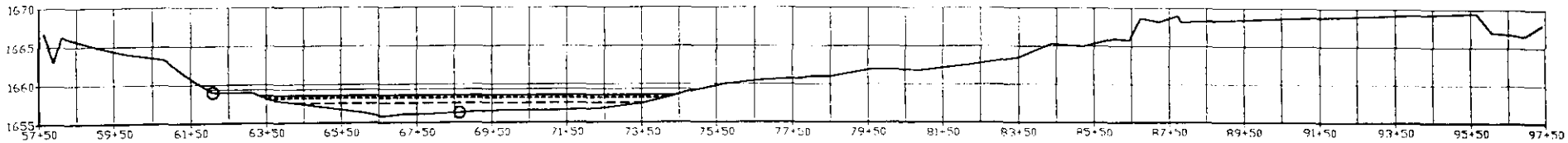
356

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1655.05 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1655.92 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1656.18 ft

Profile 4
Flow Discharge = 14300.00 cfs
— · 500-YEAR WSEL = 1657.44 ft



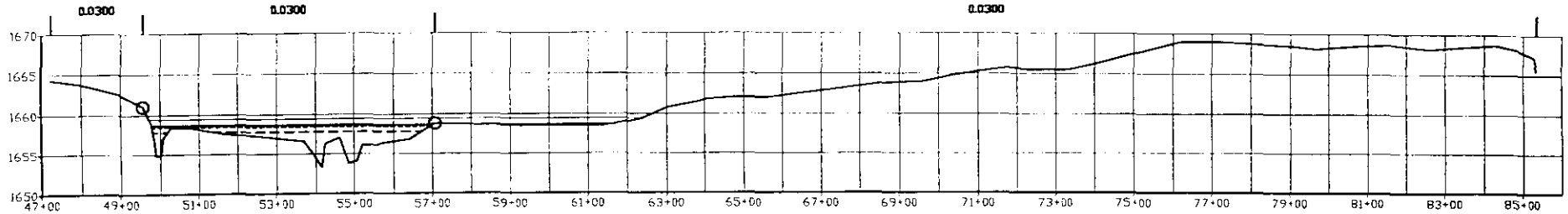
358

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1657.57 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1658.27 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1658.56 ft

Profile 4
Flow Discharge = 14300.00 cfs
- - - 500-YEAR WSEL = 1659.33 ft



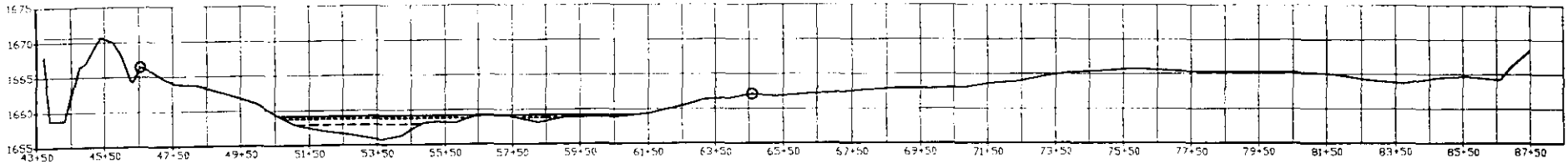
359

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1657.76 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1658.42 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1658.67 ft

Profile 4
Flow Discharge = 14300.00 cfs
—·— 500-YEAR WSEL = 1659.46 ft



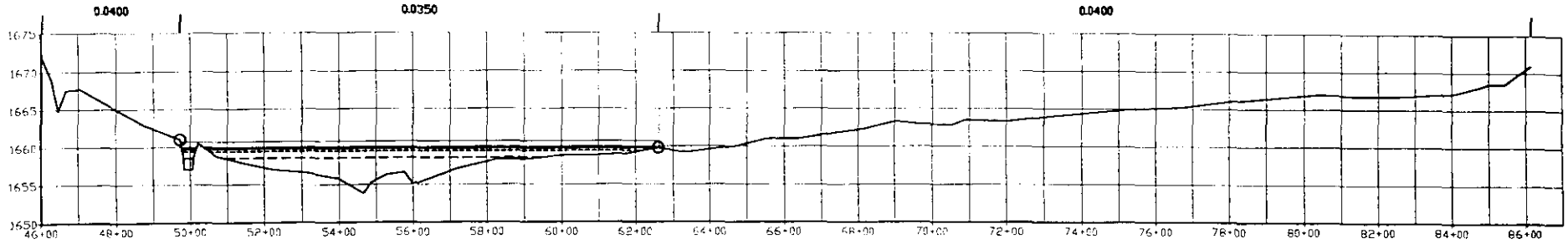
359.1

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1657.97 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1658.80 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1659.17 ft

Profile 4
Flow Discharge = 14300.00 cfs
500-YEAR WSEL = 1659.93 ft



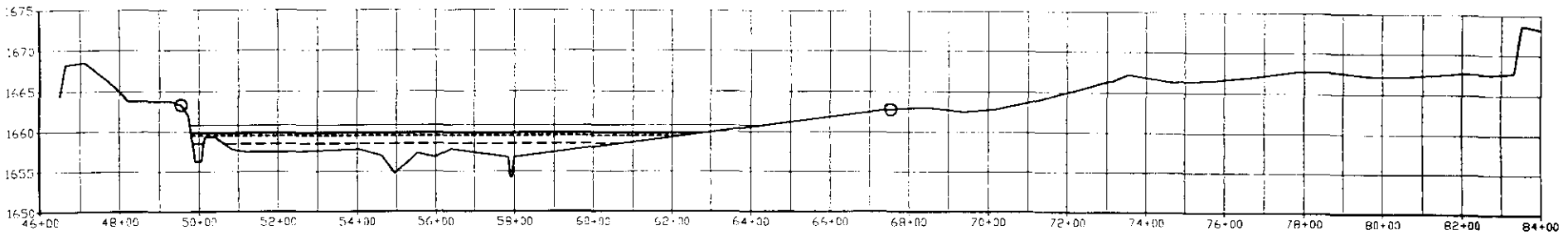
360

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1658.48 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1659.44 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1659.75 ft

Profile 4
Flow Discharge = 14300.00 cfs
—— 500-YEAR WSEL = 1660.68 ft



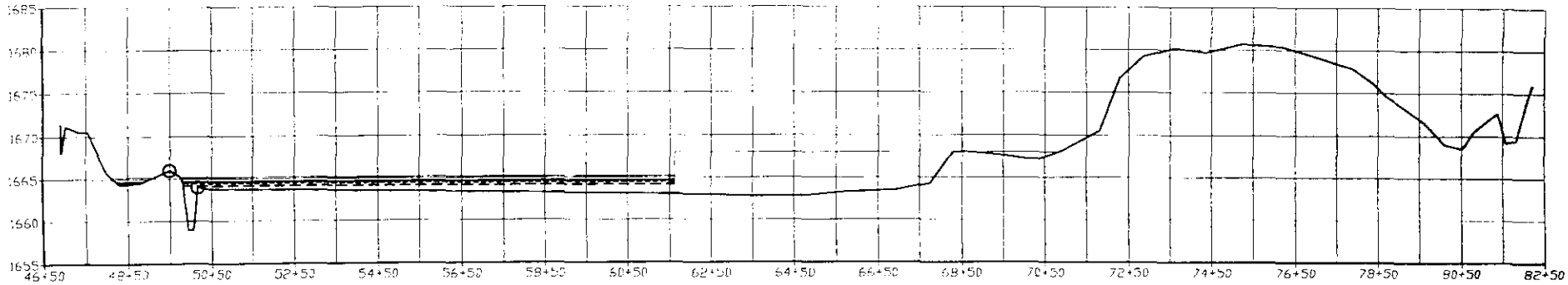
361

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1658.53 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1659.49 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1659.81 ft

Profile 4
Flow Discharge = 14300.00 cfs
- - - 500-YEAR WSEL = 1660.76 ft



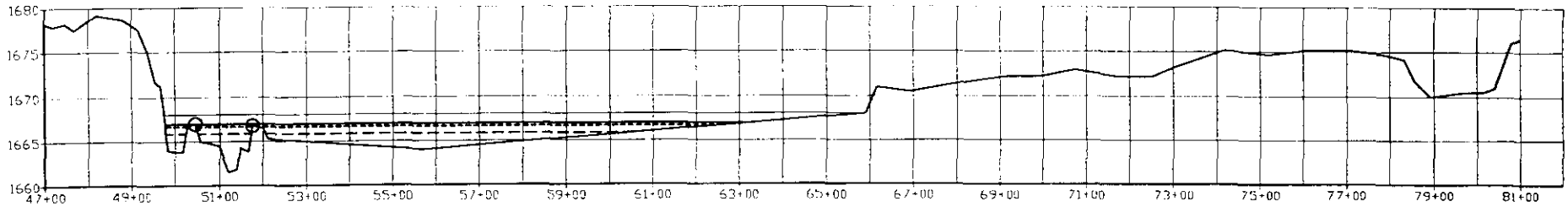
362

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1664.14 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1664.50 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1664.66 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1665.17 ft



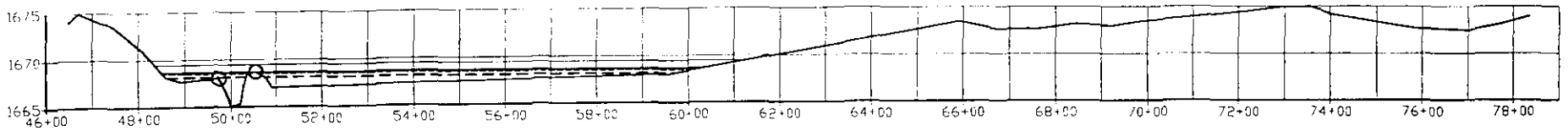
364

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1665.90 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1666.69 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1667.00 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1668.06 ft



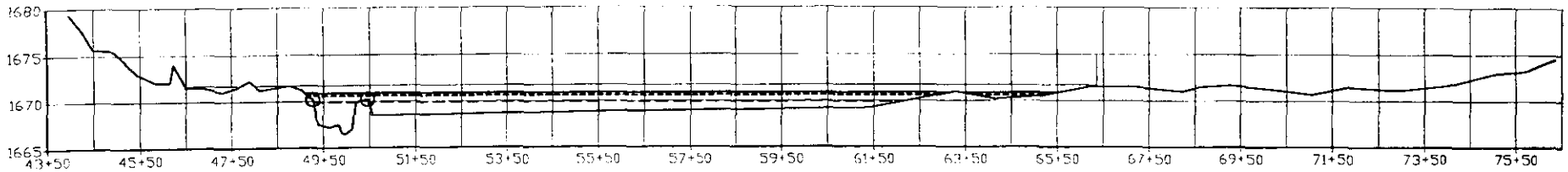
366

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1668.15 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1668.57 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1668.67 ft

Profile 4
Flow Discharge = 14300.00 cfs
—— 500-YEAR WSEL = 1669.49 ft

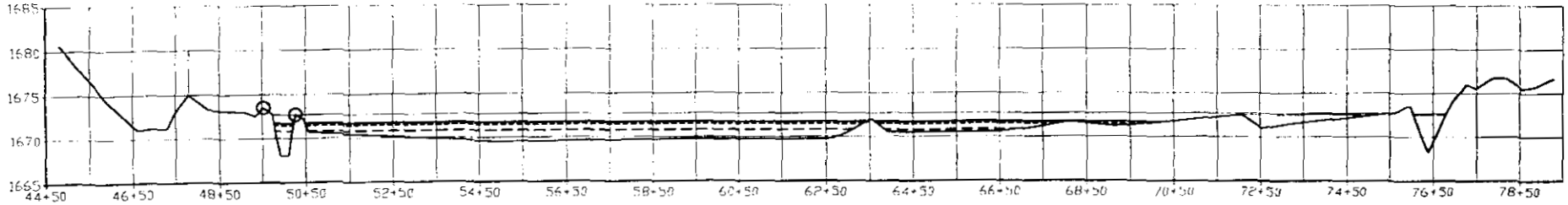


Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1669.89 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1670.56 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1670.87 ft

Profile 4
Flow Discharge = 14300.00 cfs
..... 500-YEAR WSEL = 1671.73 ft



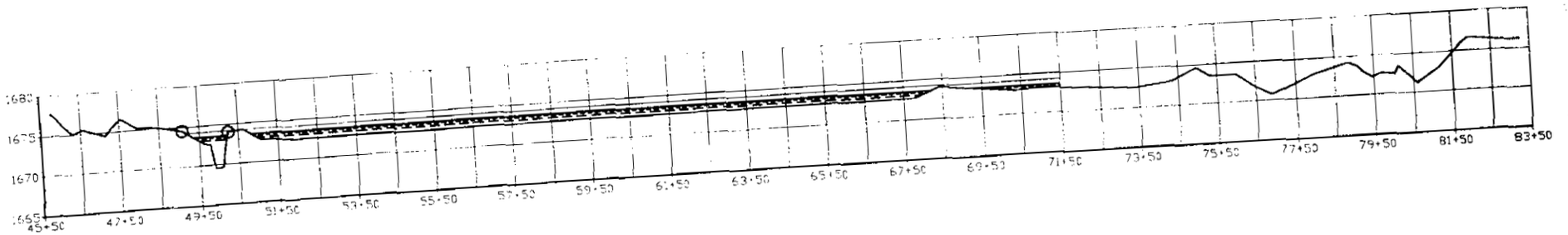
370

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1670.80 Ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1671.45 Ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1671.73 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1672.66 ft



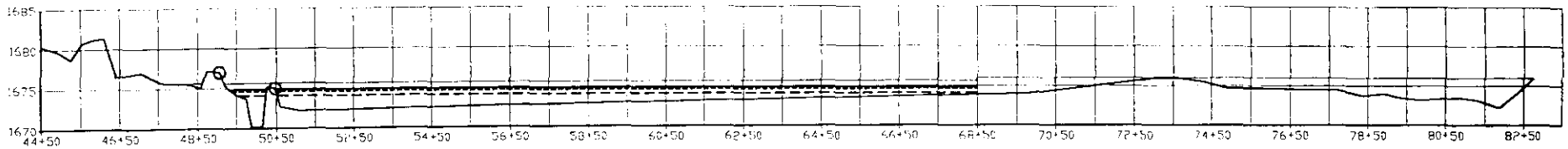
372

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1673.06 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1673.38 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1673.54 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1674.19 ft



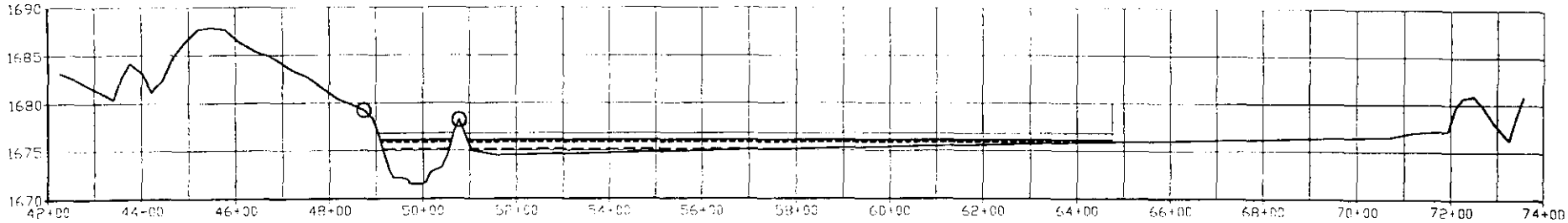
374

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1674.10 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1674.66 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1674.88 ft

Profile 4
Flow Discharge = 14300.00 cfs
— 500-YEAR WSEL = 1675.65 ft



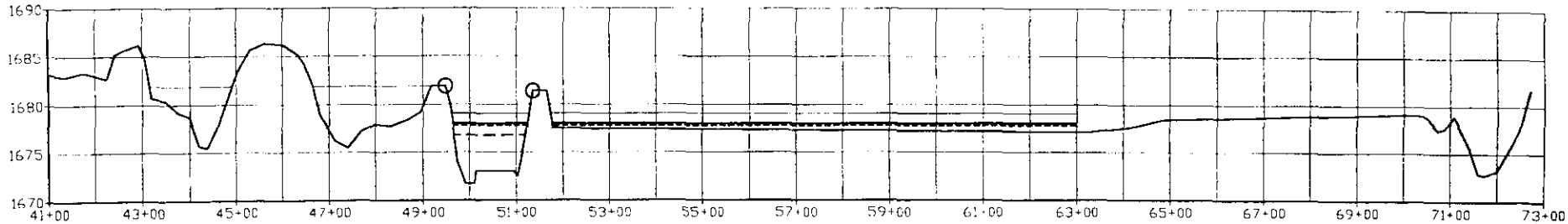
376

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1675.15 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1675.88 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1676.11 ft

Profile 4
Flow Discharge = 14300.00 cfs
—— 500-YEAR WSEL = 1676.78 ft

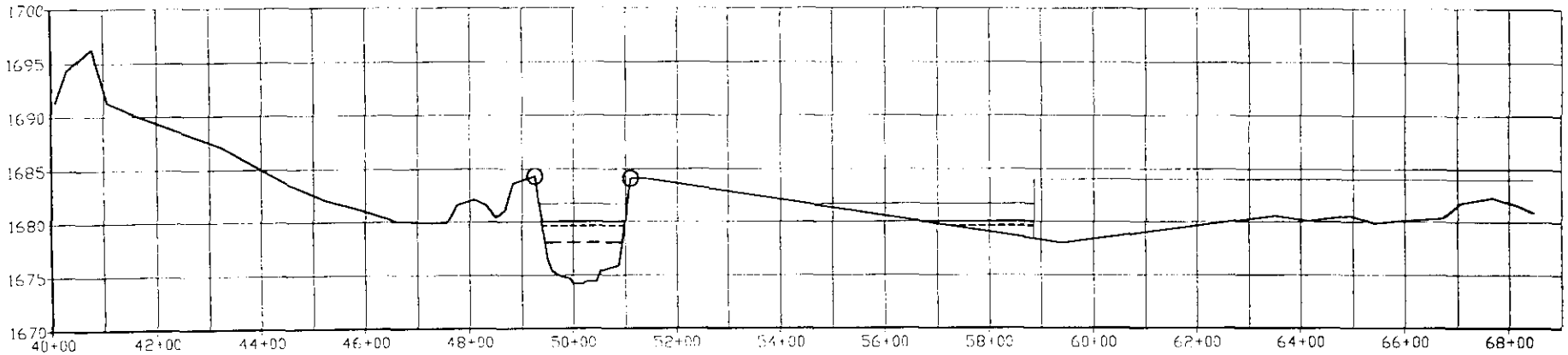


Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1676.75 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1677.75 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1678.03 ft

Profile 4
Flow Discharge = 14300.00 cfs
— · — 500-YEAR WSEL = 1679.00 ft



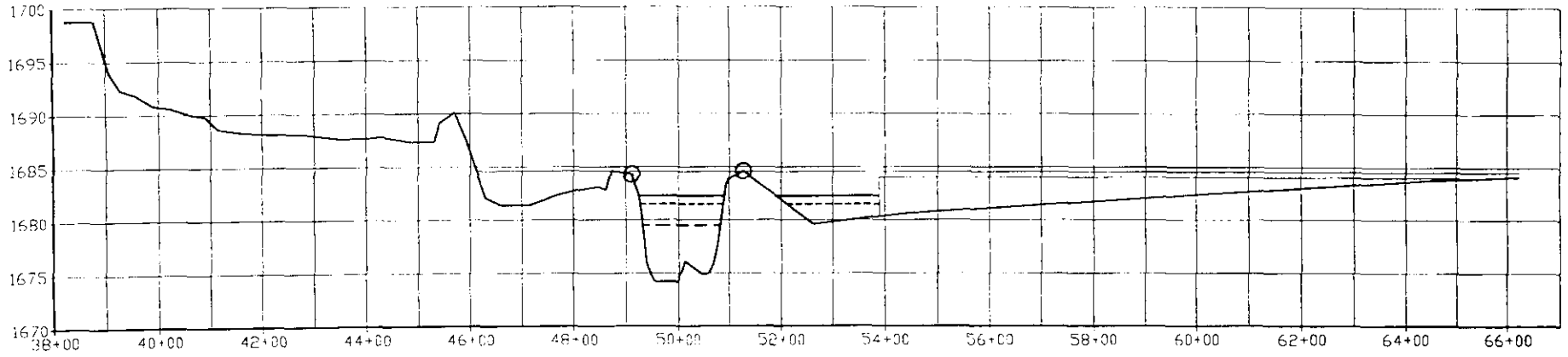
380

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1678.03 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1679.62 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1680.05 ft

Profile 4
Flow Discharge = 14300.00 cfs
——·—· 500-YEAR WSEL = 1681.72 ft



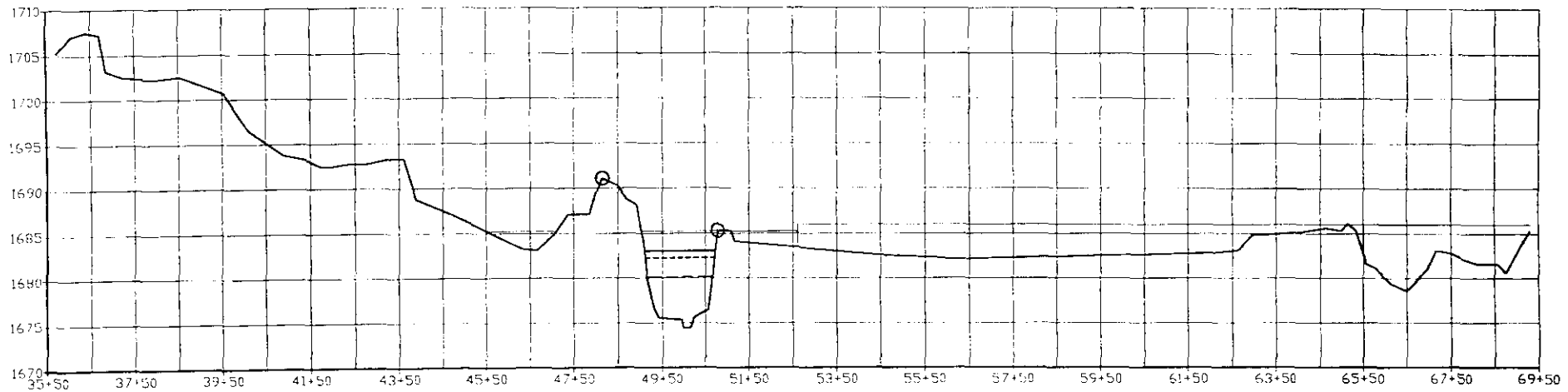
382

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1679.46 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1681.49 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1682.23 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1684.51 ft



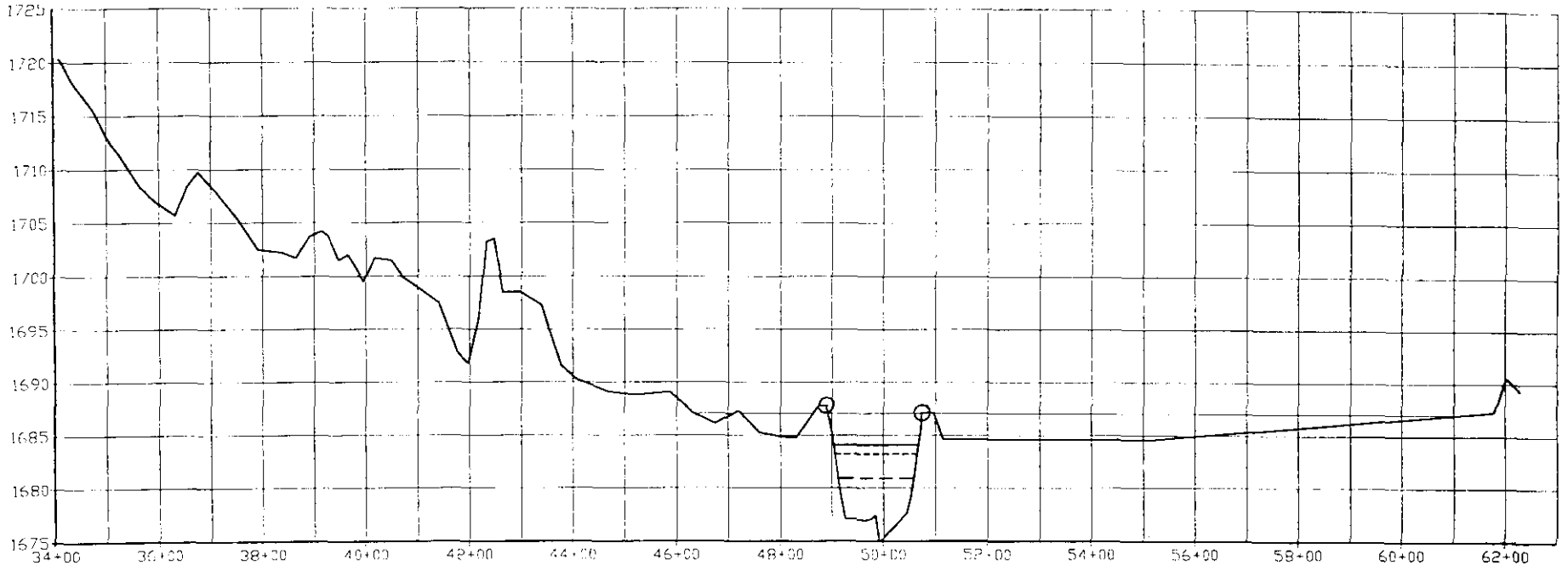
384

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1680.13 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1682.25 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1682.99 ft

Profile 4
Flow Discharge = 14300.00 cfs
. . . . 500-YEAR WSEL = 1685.25 ft



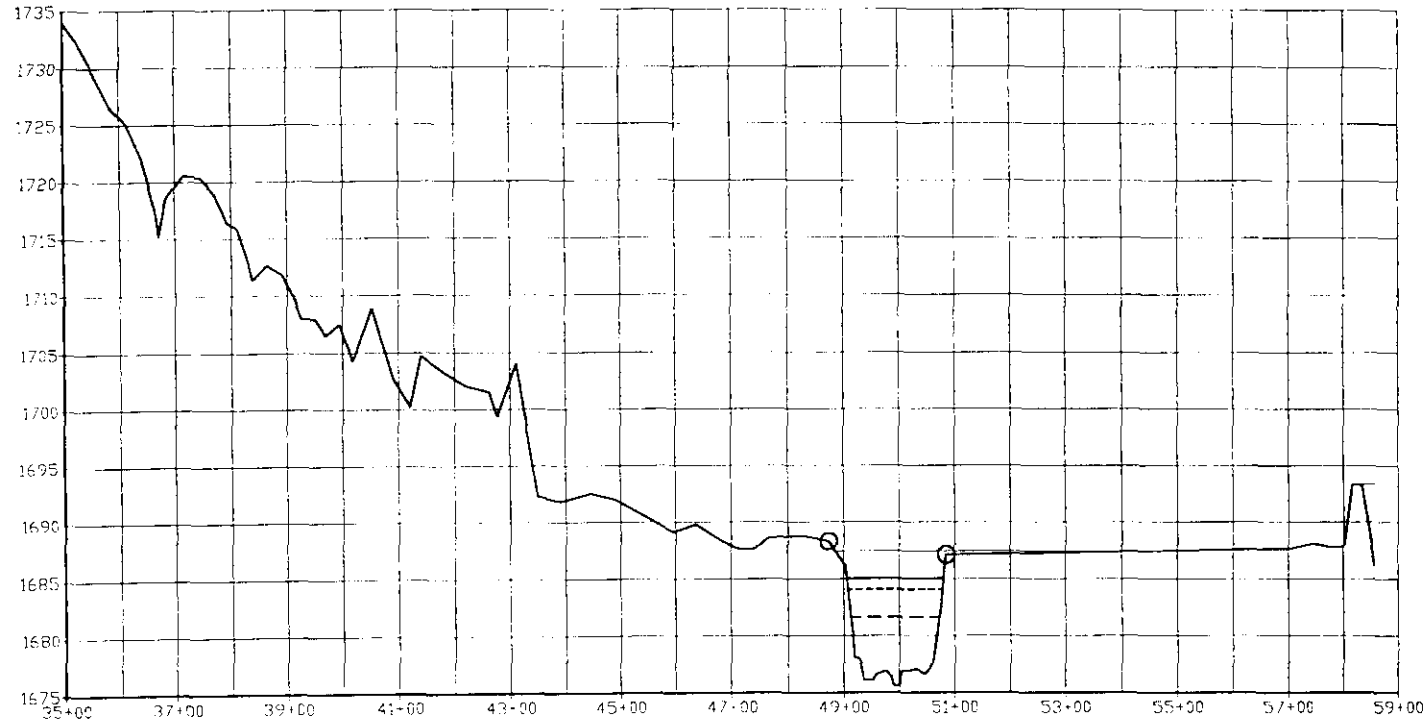
386

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1680.92 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1683.20 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1684.08 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1687.06 ft



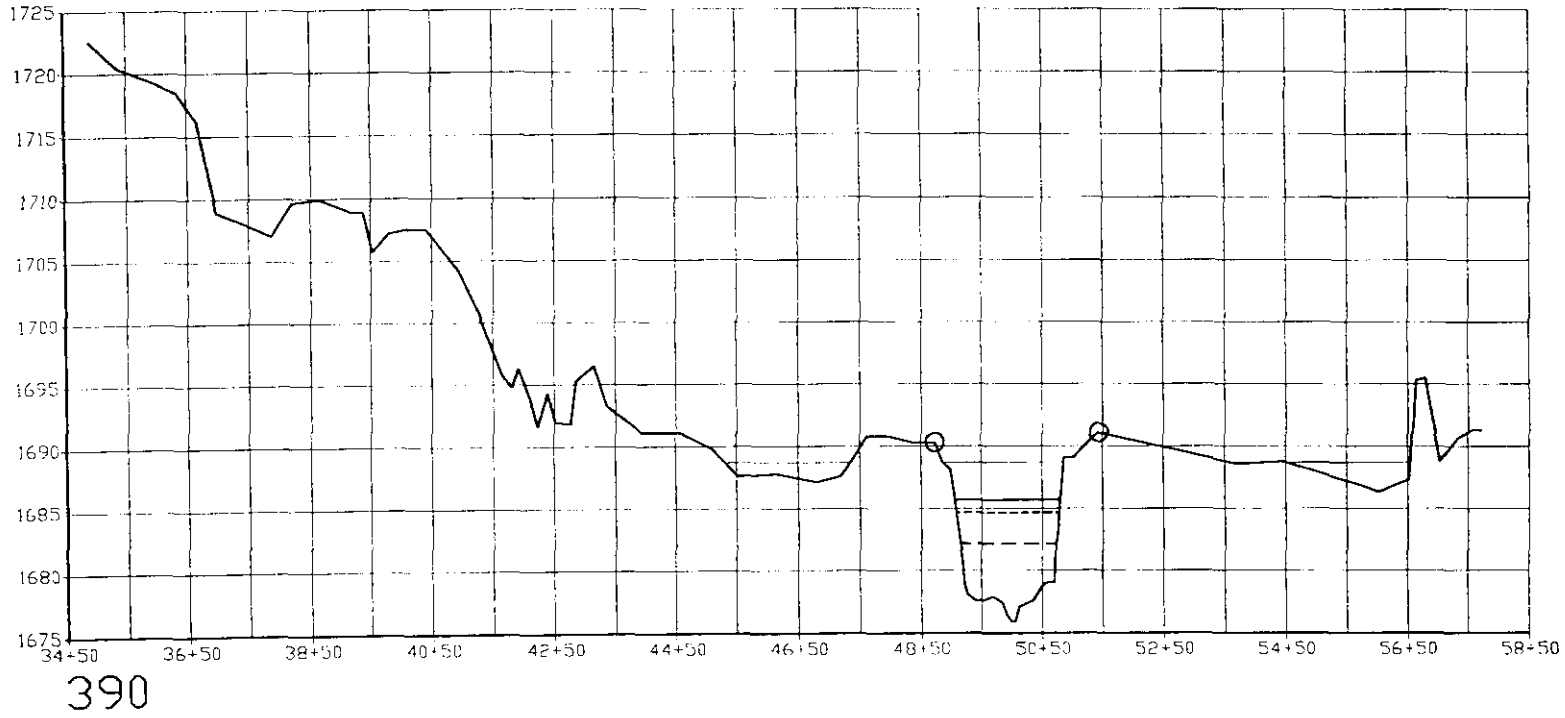
388

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1681.62 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1684.08 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL = 1685.06 ft

Profile 4
Flow Discharge = 14300.00 cfs
—— 500-YEAR WSEL = 1687.43 ft



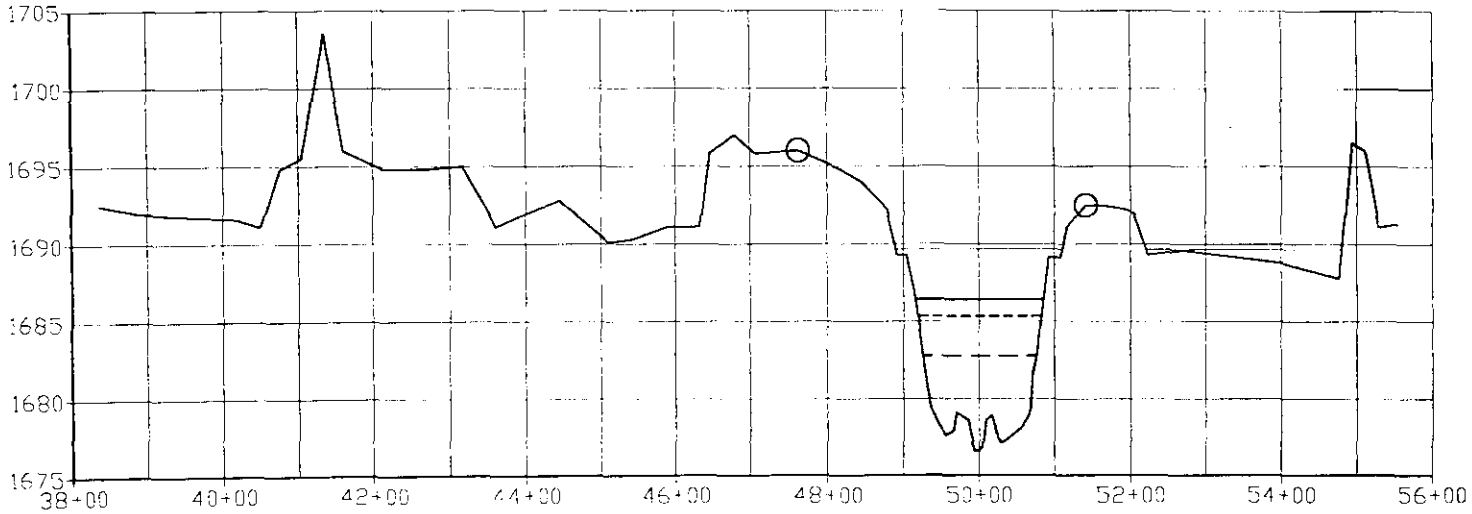
390

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1682.13 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1684.67 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1685.69 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1688.70 ft



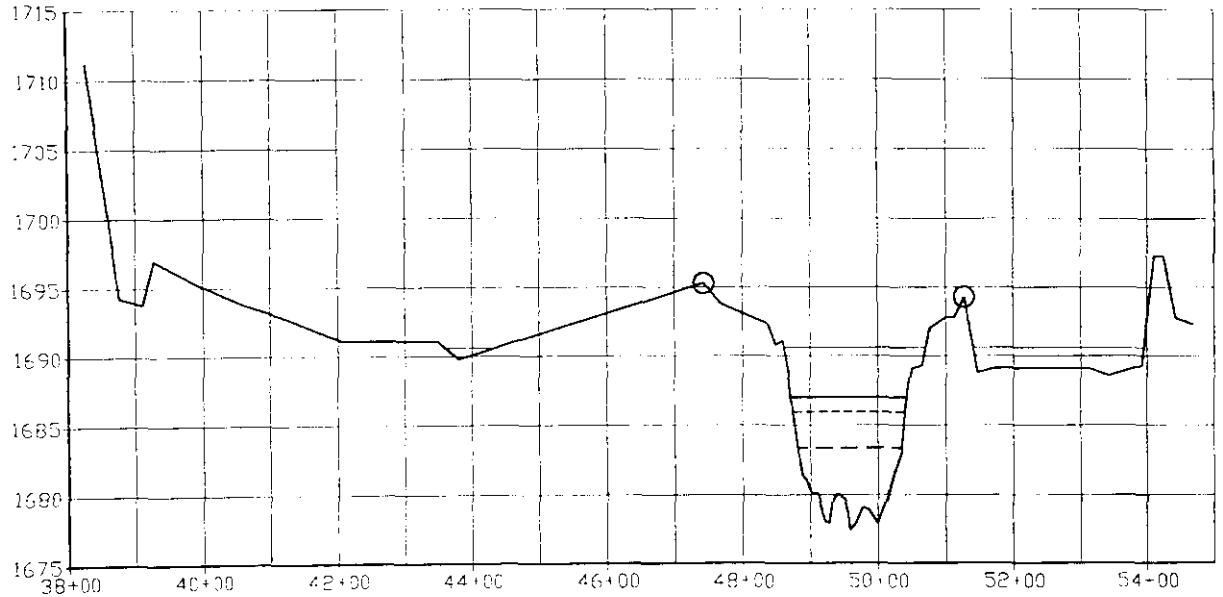
392

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1682.78 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1685.37 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1686.43 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1689.68 ft



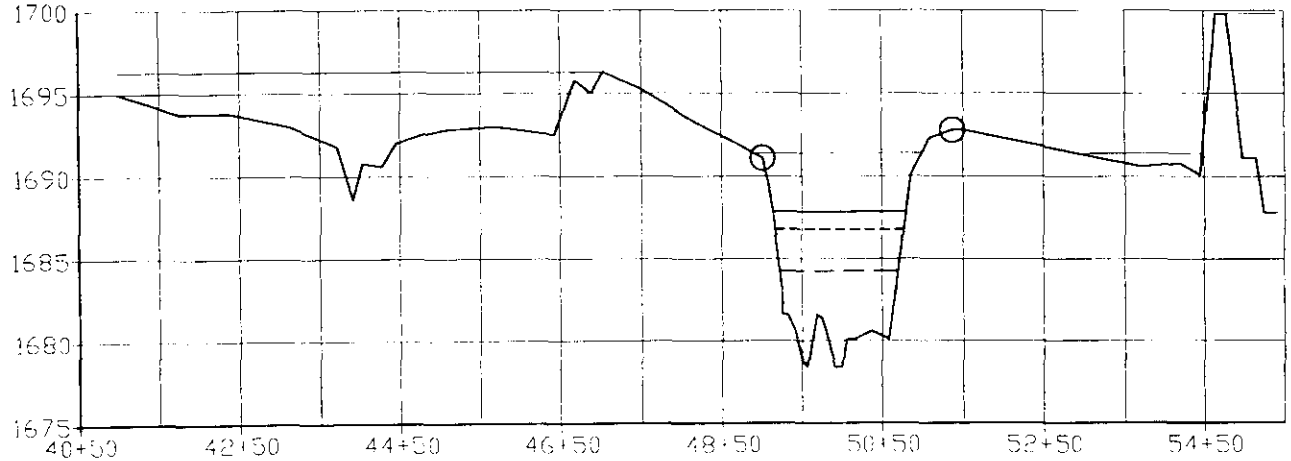
394

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1683.37 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1685.96 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1687.04 ft

Profile 4
Flow Discharge = 14300.00 cfs
—— 500-YEAR WSEL = 1690.60 ft



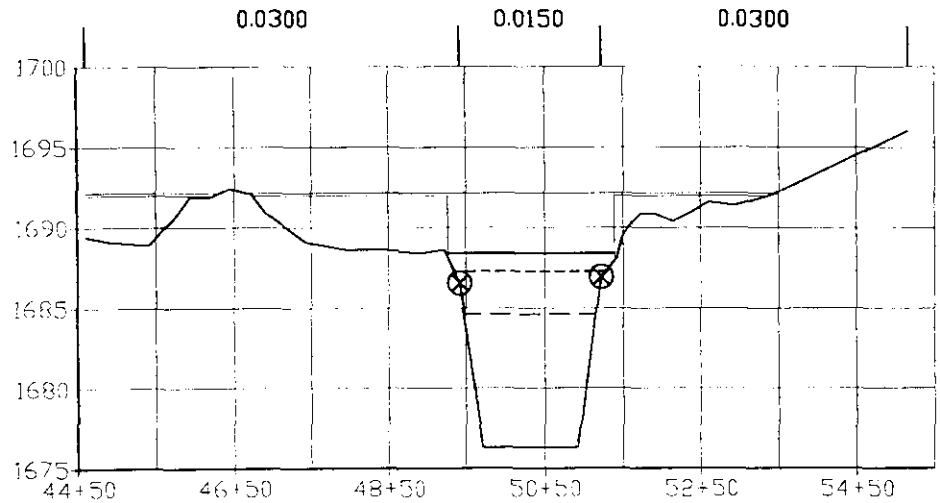
396

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1684.25 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1686.78 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1687.85 ft

Profile 4
Flow Discharge = 14300.00 cfs
– —— 500-YEAR WSEL = 1691.38 ft



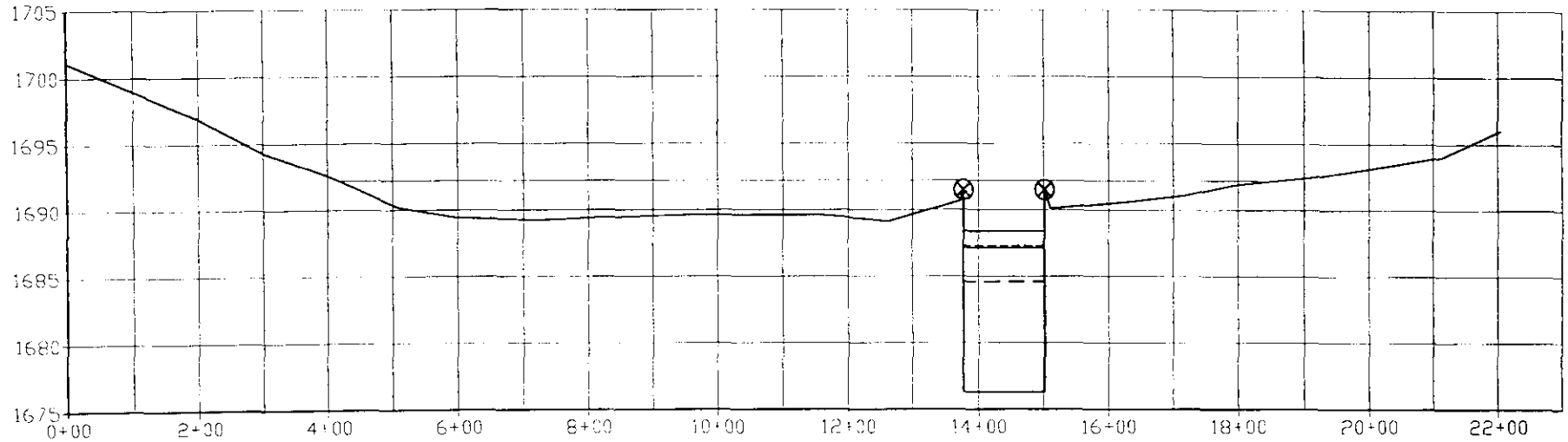
398

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1684.58 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1687.27 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1688.41 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1692.14 ft



400

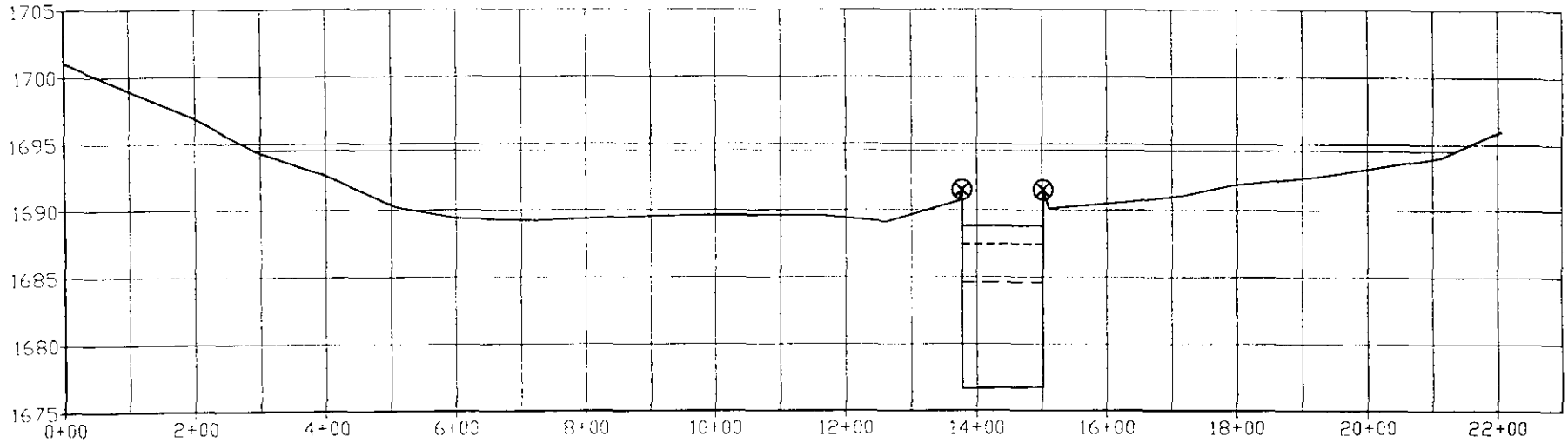
Downstream Vegas Valley Rd.
Special Bridge, Bridge elevations taken from field survey conducted by
Nolte & Associates 12-2-97

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1684.57 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1687.24 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1688.36 ft

Profile 4
Flow Discharge = 14300.00 cfs
..... 500-YEAR WSEL = 1692.21 ft



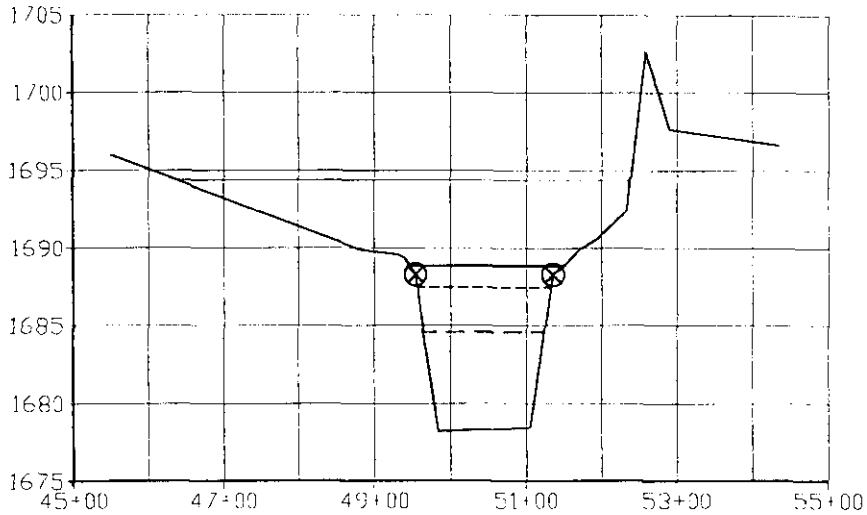
400.1

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1684.58 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1687.44 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1688.79 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1694.49 ft



401

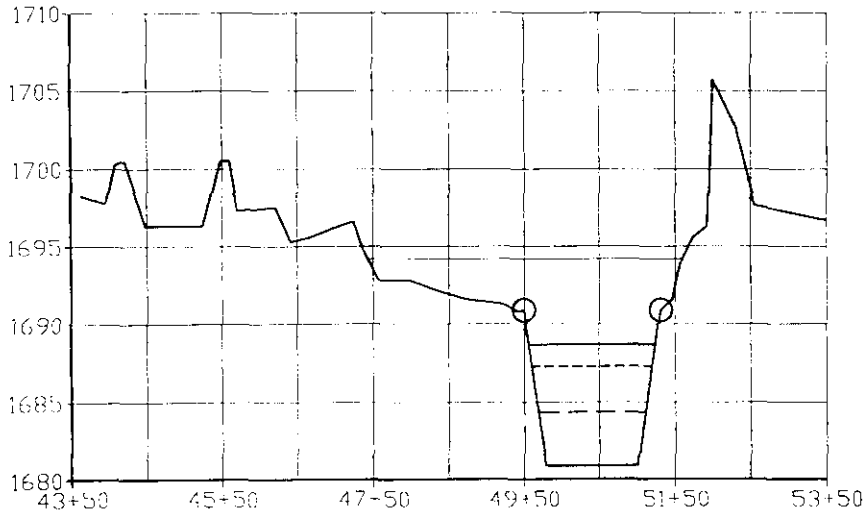
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1684.58 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1687.48 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1688.87 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1694.36 ft



402

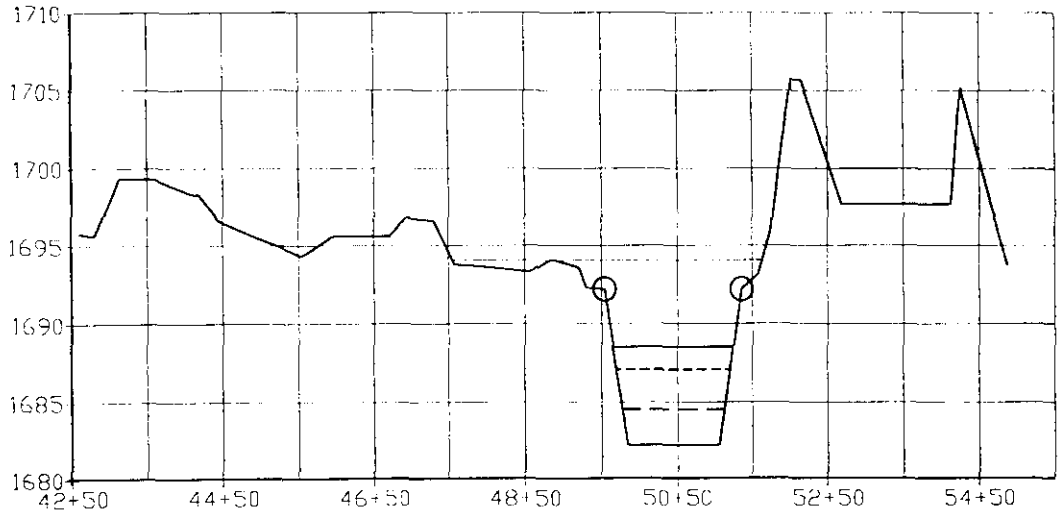
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1684.35 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1687.26 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1688.66 ft

Profile 4
Flow Discharge = 14300.00 cfs
— 500-YEAR WSEL = 1694.18 ft



404

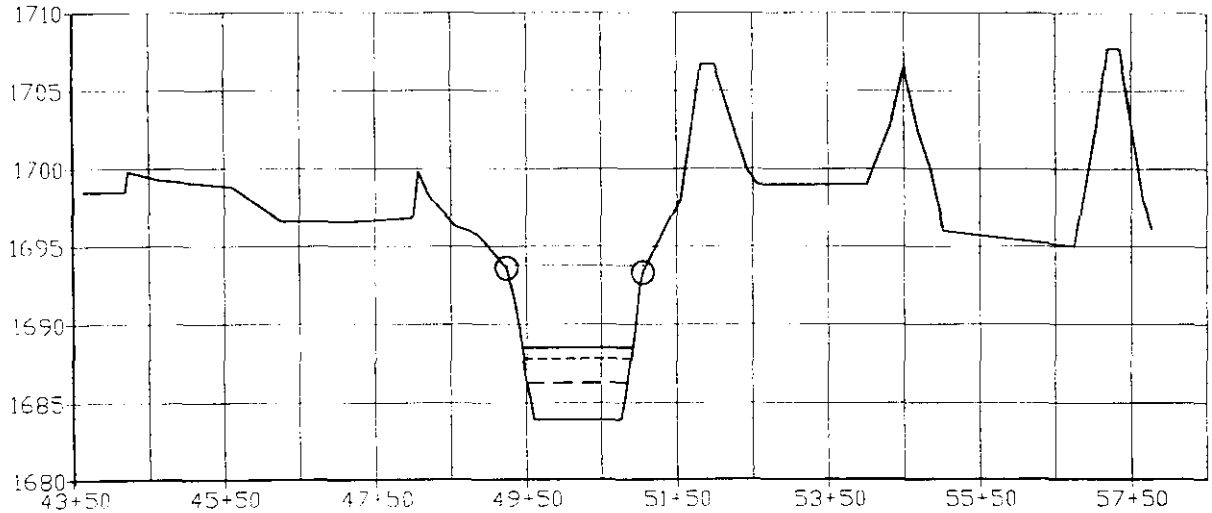
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1684.51 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1687.07 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1688.51 ft

Profile 4
Flow Discharge = 14300.00 cfs
—·—· 500-YEAR WSEL = 1694.04 ft



406

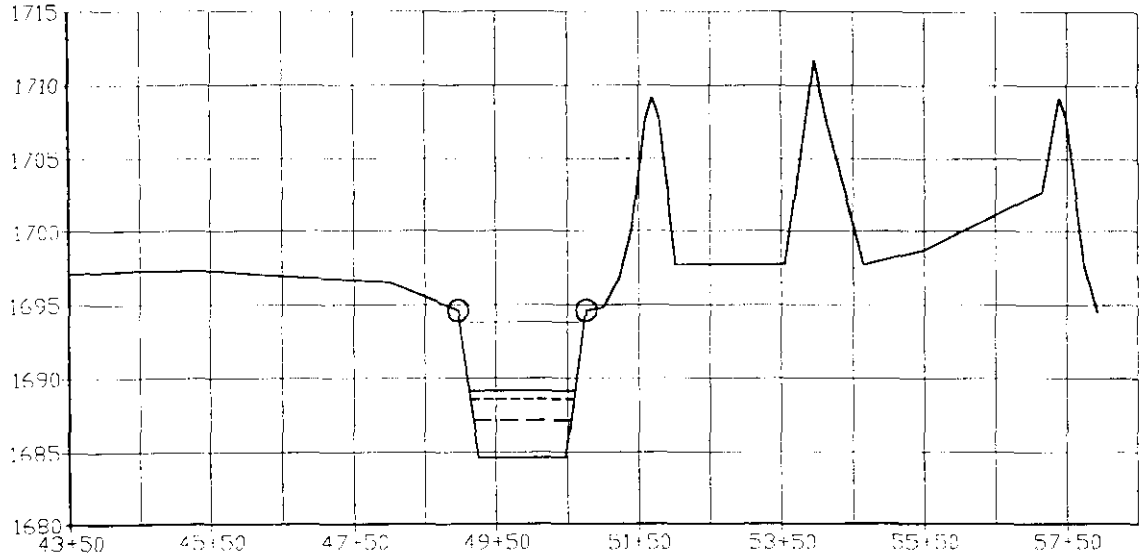
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1686.26 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1687.82 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1688.52 ft

Profile 4
Flow Discharge = 14300.00 cfs
— — — 500-YEAR WSEL = 1693.76 ft



408

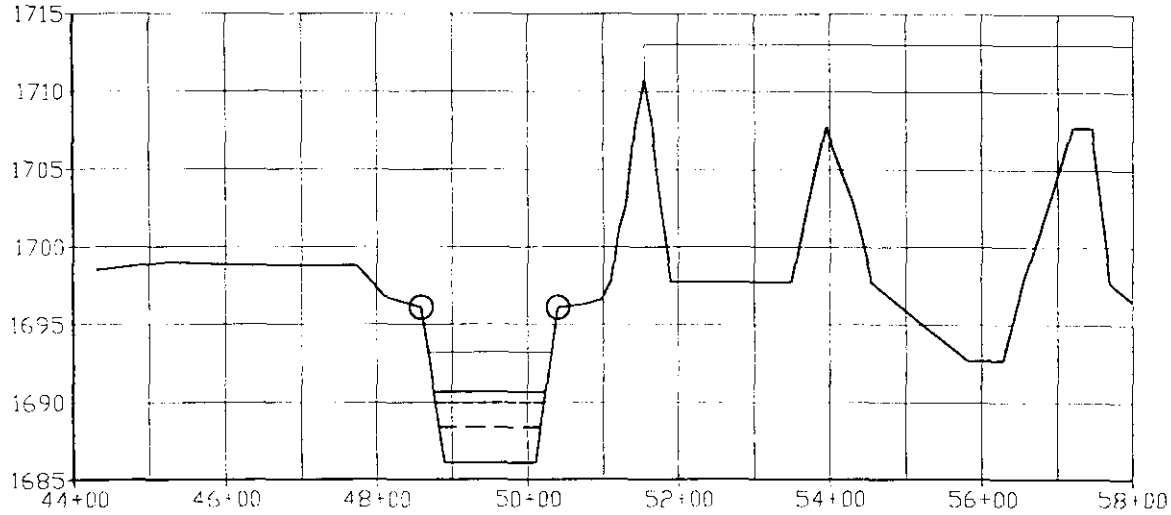
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1687.15 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1688.60 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1689.14 ft

Profile 4
Flow Discharge = 14300.00 cfs
. . . . 500-YEAR WSEL = 1693.80 ft



410

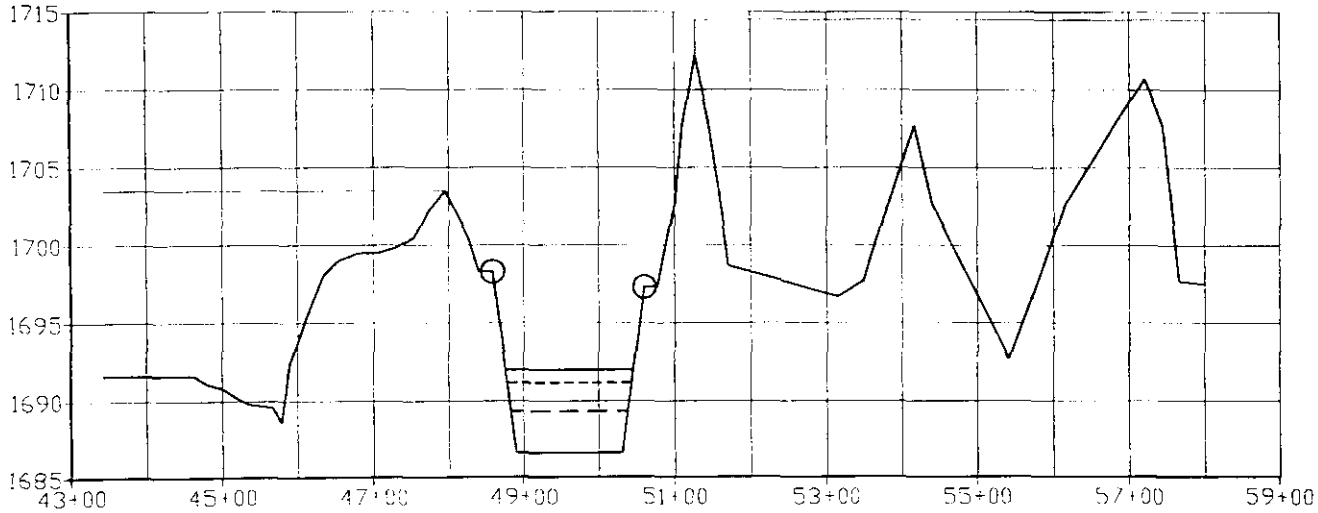
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1688.41 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1689.96 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1690.65 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1693.19 ft



412

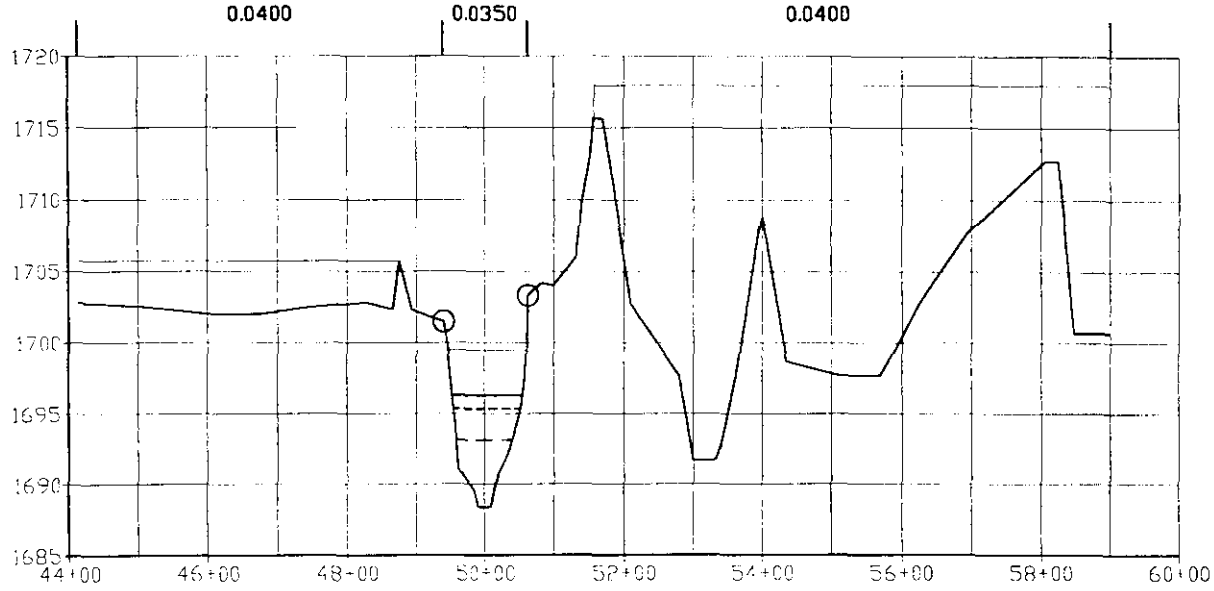
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1689.32 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1691.17 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1692.00 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1695.03 ft



414

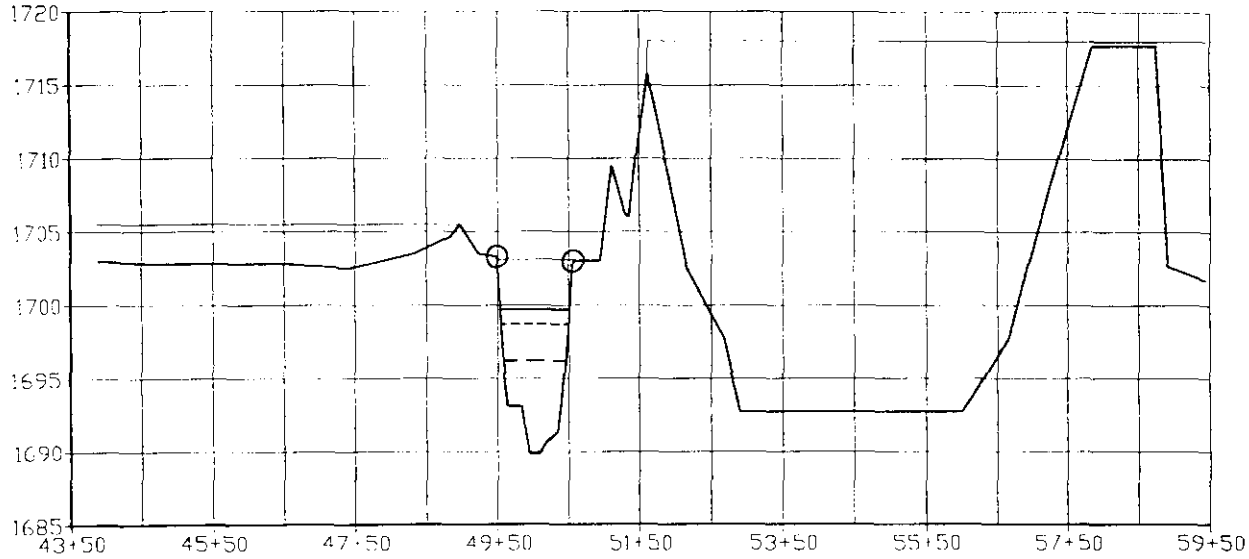
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1693.16 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1695.34 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1696.28 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1699.46 ft



416

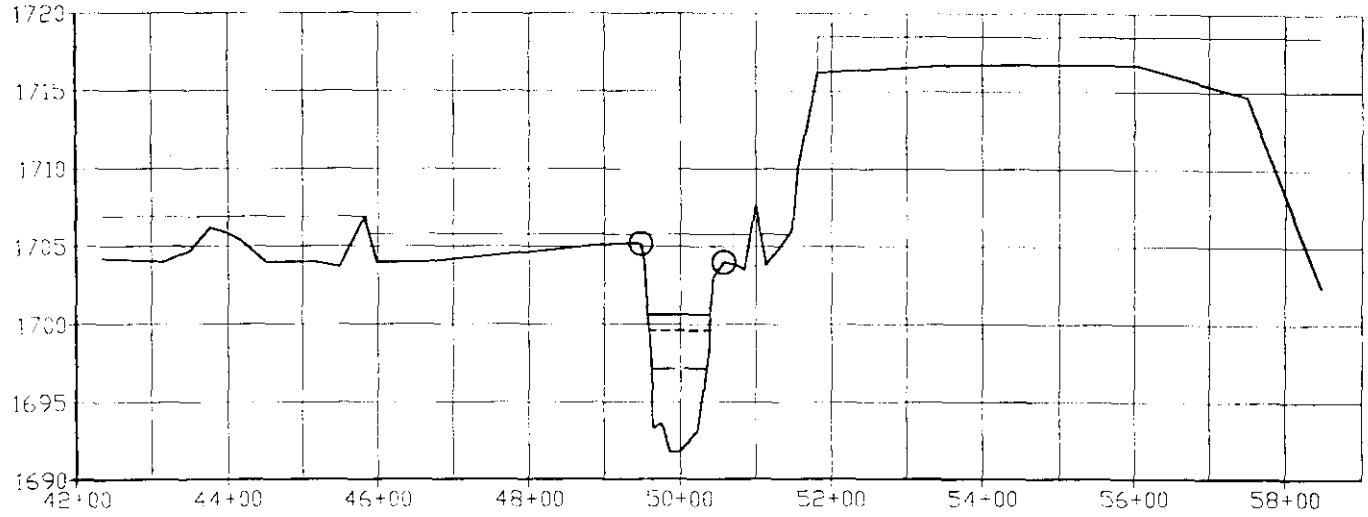
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1696.20 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1698.70 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1699.68 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1703.10 ft



418

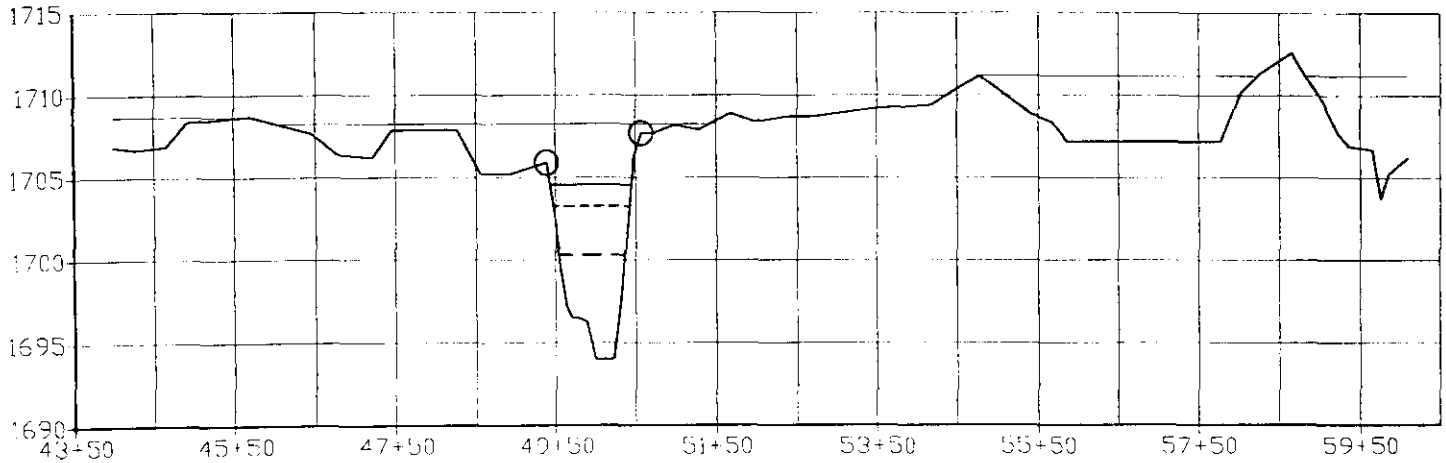
Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOCIATES, 03/98

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1697.14 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1699.62 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1700.61 ft

Profile 4
Flow Discharge = 14300.00 cfs
—— 500-YEAR WSEL = 1705.81 ft



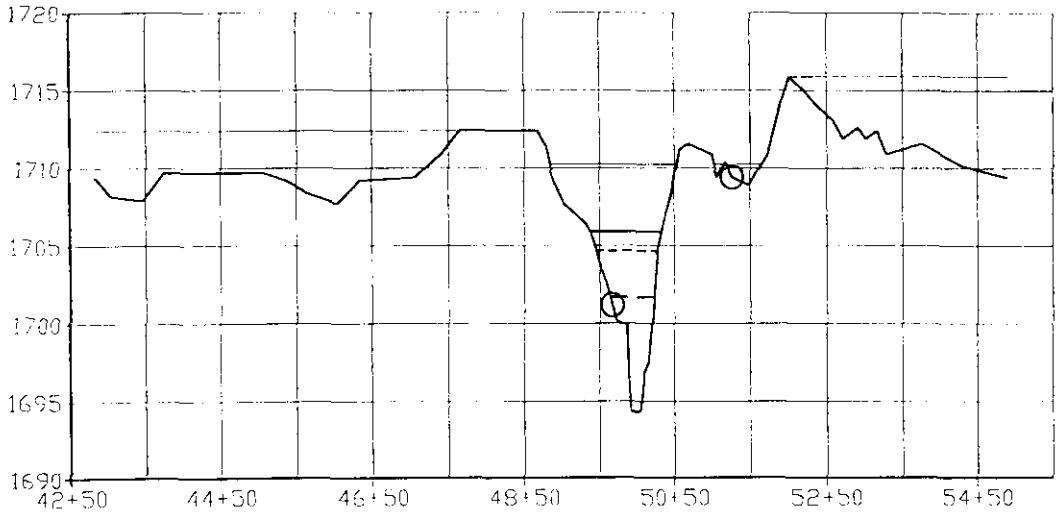
420

Profile 1
Flow Discharge = 2500.00 cfs
– – – 10-YEAR WSEL = 1700.29 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1703.25 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1704.57 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1708.27 ft



422

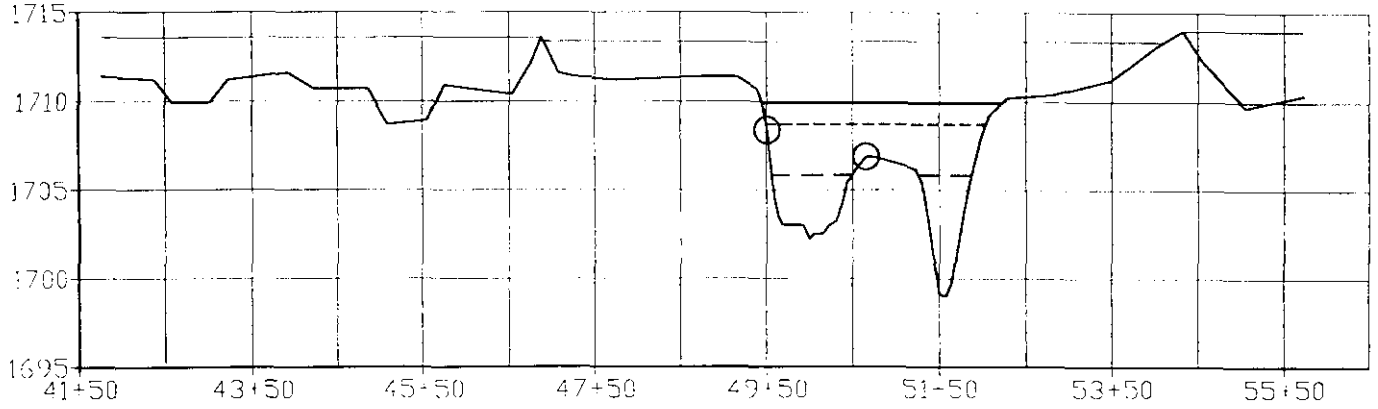
Confluence with Flamingo Wash

Profile 1
Flow Discharge = 2500.00 cfs
- - - 10-YEAR WSEL = 1701.69 ft

Profile 2
Flow Discharge = 5500.00 cfs
----- 50-YEAR WSEL = 1704.64 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL = 1705.89 ft

Profile 4
Flow Discharge = 14300.00 cfs
——— 500-YEAR WSEL = 1710.23 ft



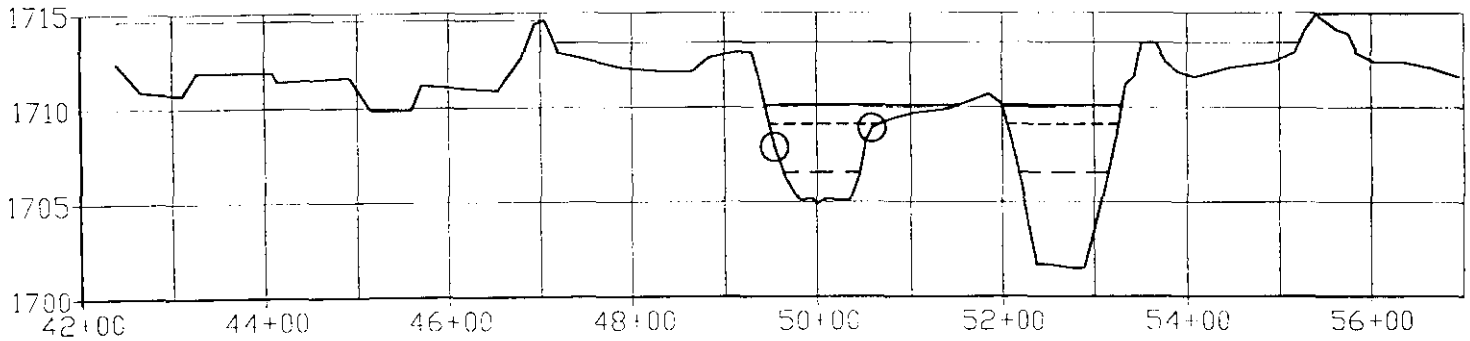
424

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1705.84 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1708.72 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1709.89 ft

Profile 4
Flow Discharge = 5504.38 cfs
—— 500-YEAR WSEL = 1713.37 ft



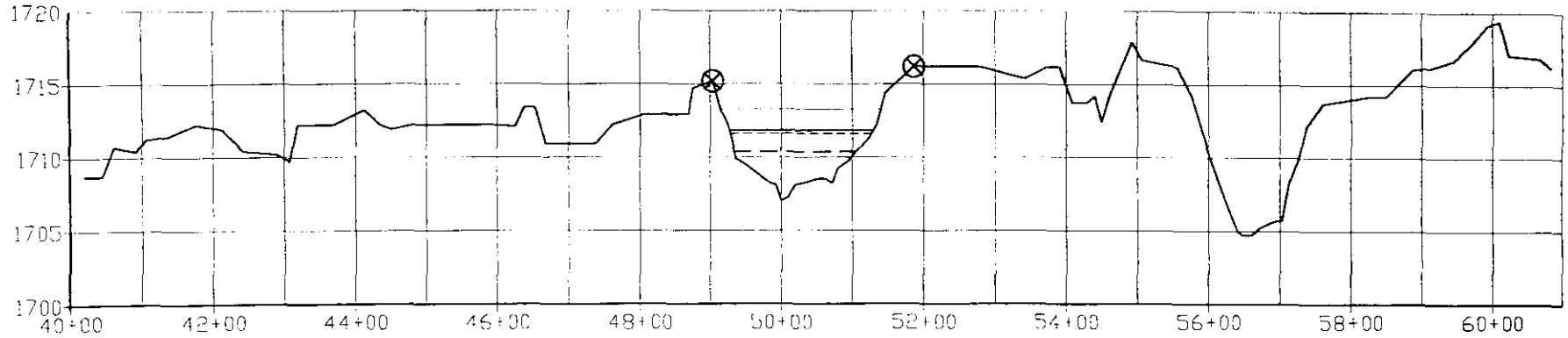
426

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1706.57 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1709.10 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1710.14 ft

Profile 4
Flow Discharge = 5504.38 cfs
——— 500-YEAR WSEL = 1713.41 ft



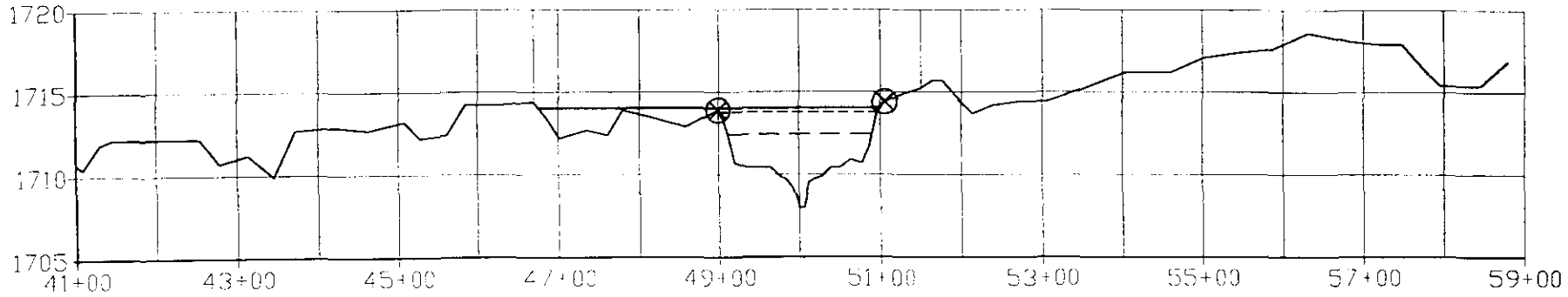
428

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1710.34 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1711.60 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1711.83 ft

Profile 4
Flow Discharge = 5504.38 cfs
——— 500-YEAR WSEL = 1713.27 ft



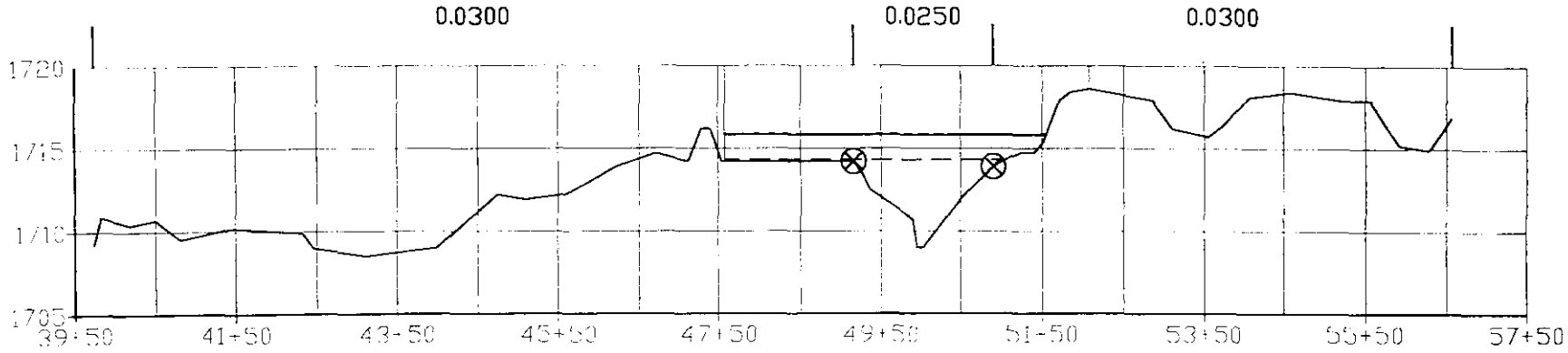
430

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1712.44 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1713.77 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1714.04 ft

Profile 4
Flow Discharge = 5504.38 cfs
——— 500-YEAR WSEL = 1713.96 ft



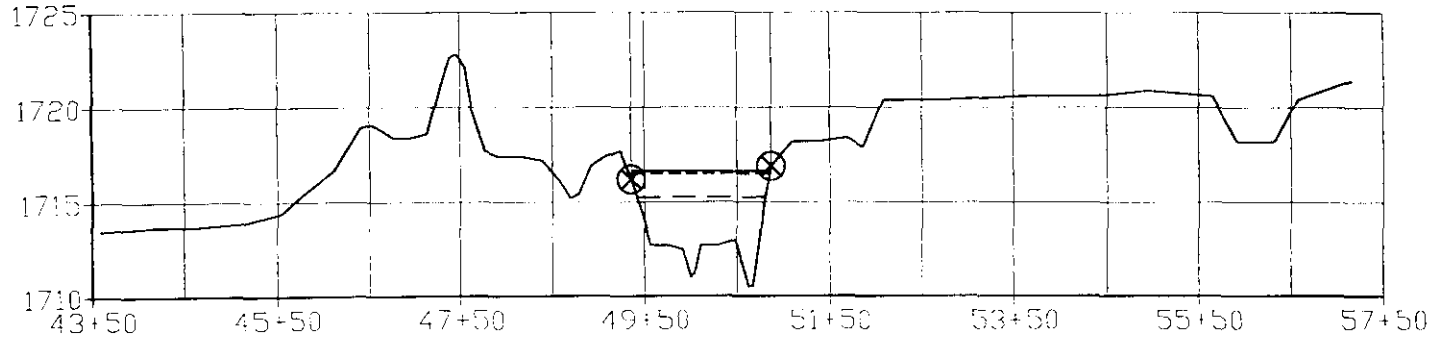
432

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1714.28 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1715.85 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1715.80 ft

Profile 4
Flow Discharge = 5504.38 cfs
——— 500-YEAR WSEL = 1715.84 ft



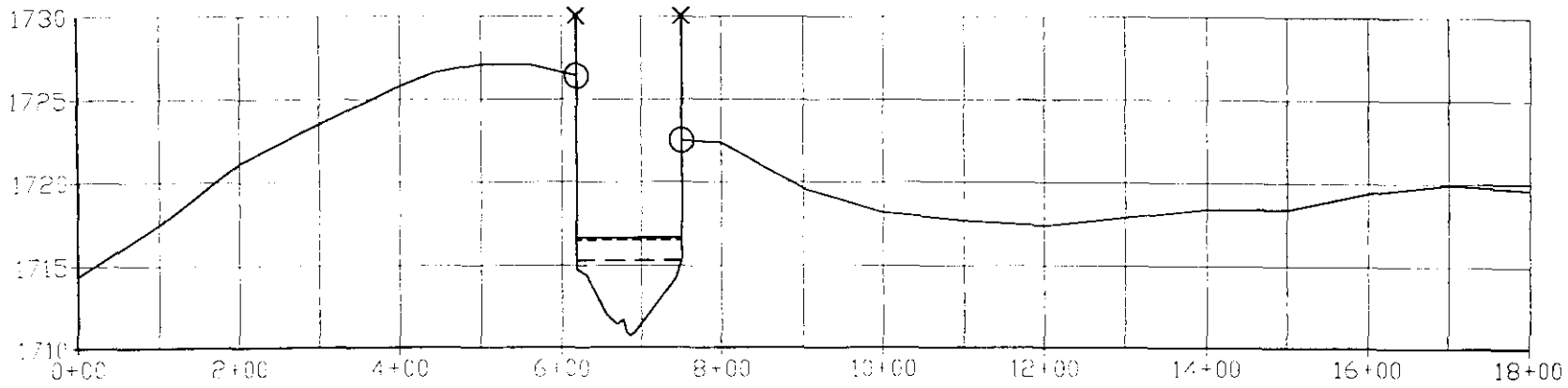
438

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1715.25 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1716.49 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1716.63 ft

Profile 4
Flow Discharge = 5504.38 cfs
——— 500-YEAR WSEL = 1716.64 ft



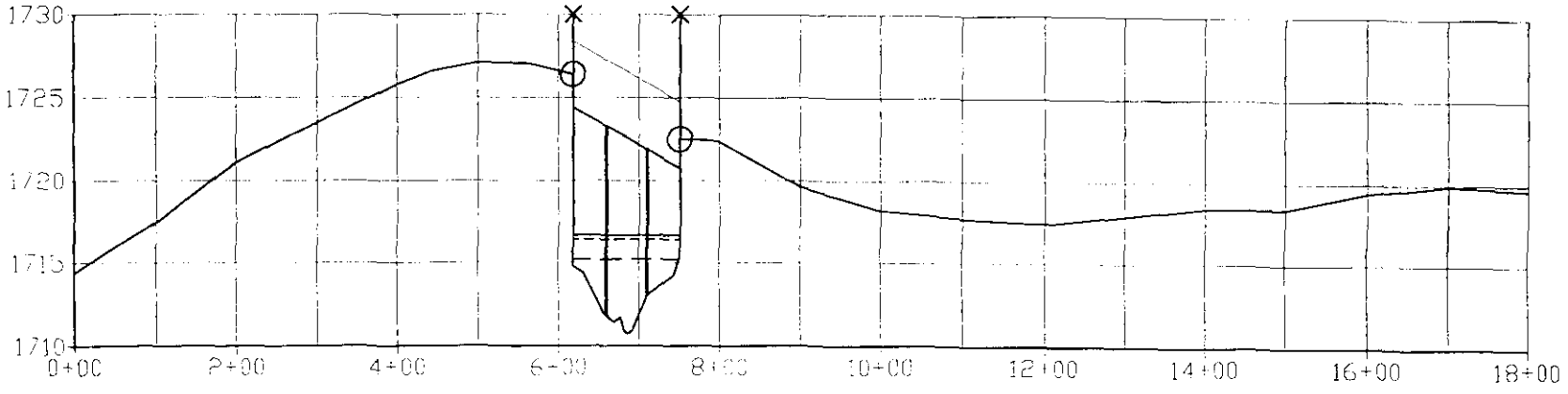
439

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1715.29 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1716.50 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1716.64 ft

Profile 4
Flow Discharge = 5504.38 cfs
··· 500-YEAR WSEL = 1716.64 ft



439.1

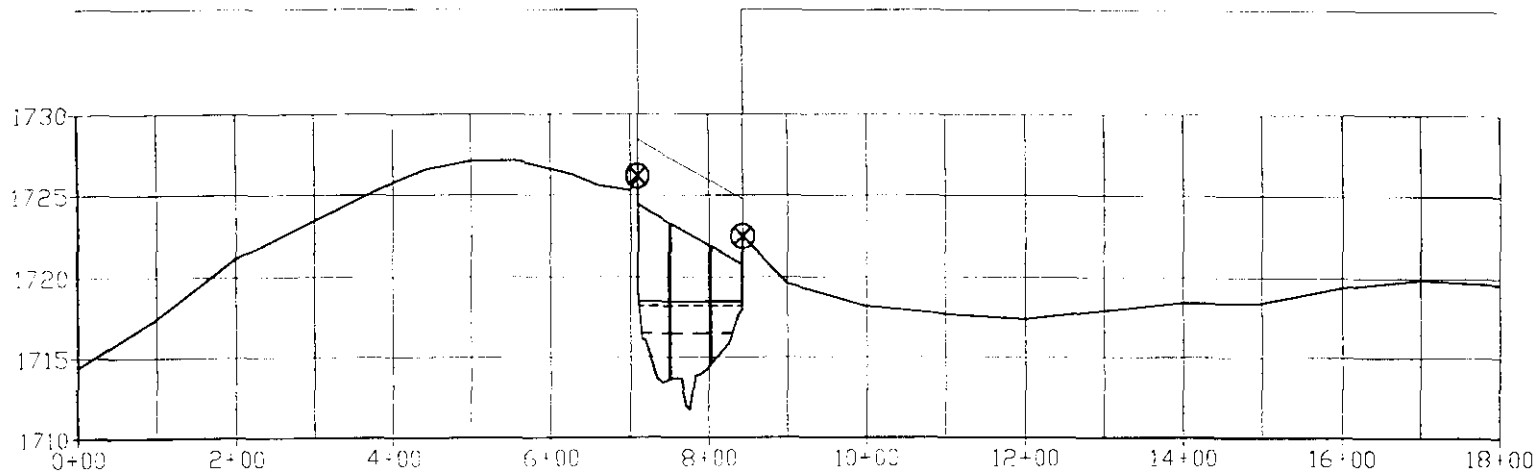
Downstream Sahara Ave.
Normal Bridge

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1715.19 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1716.40 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1716.67 ft

Profile 4
Flow Discharge = 5504.38 cfs
——— 500-YEAR WSEL = 1716.67 ft



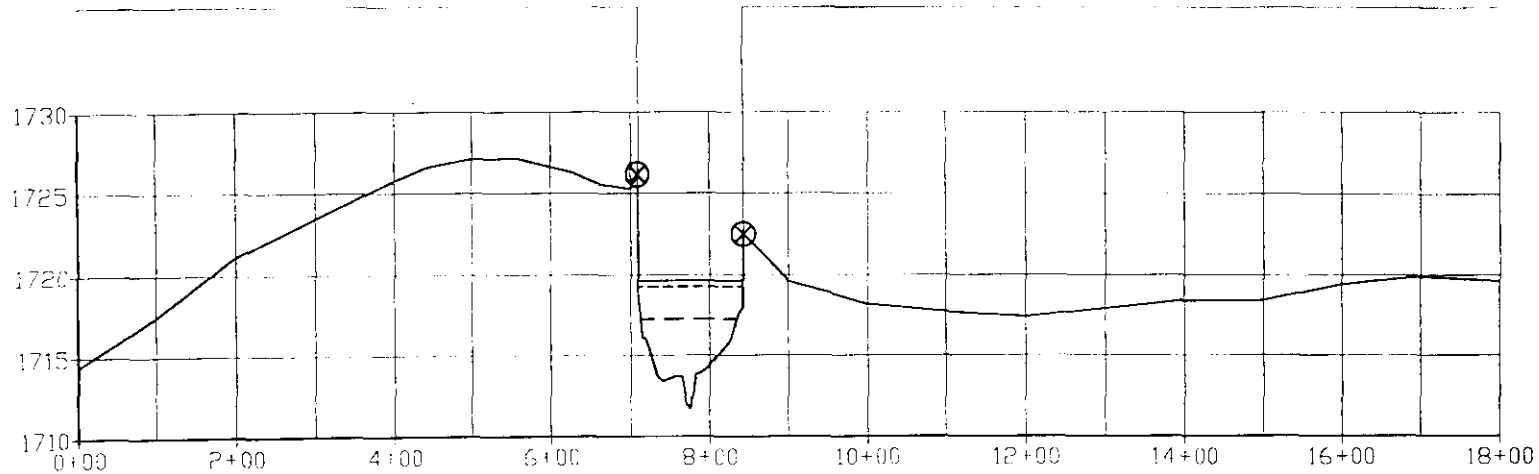
440

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1716.49 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1718.19 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1718.45 ft

Profile 4
Flow Discharge = 5504.38 cfs
---- 500-YEAR WSEL = 1718.45 ft



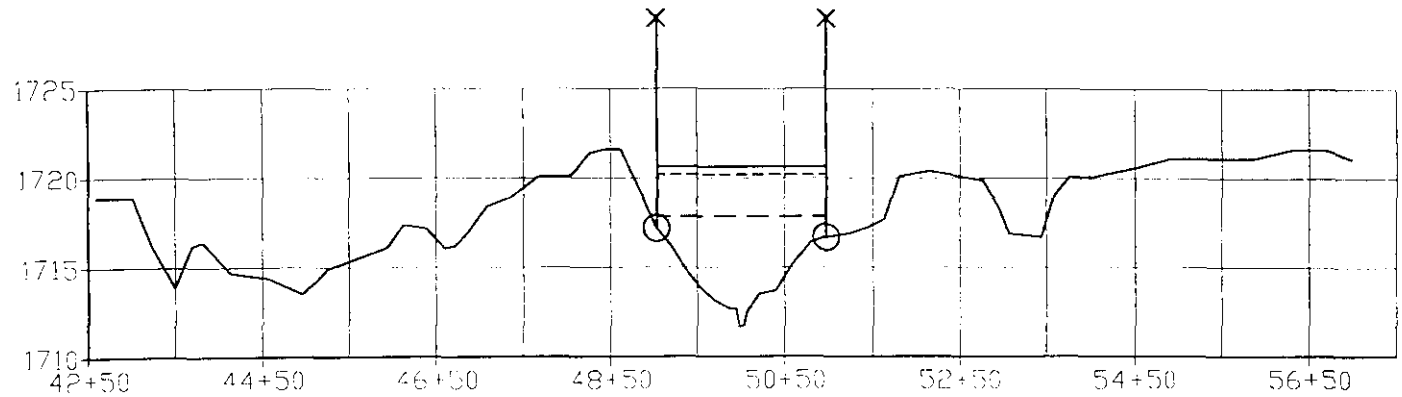
440.1

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1717.22 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1719.25 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1719.60 ft

Profile 4
Flow Discharge = 5504.38 cfs
– – – 500-YEAR WSEL = 1719.60 ft



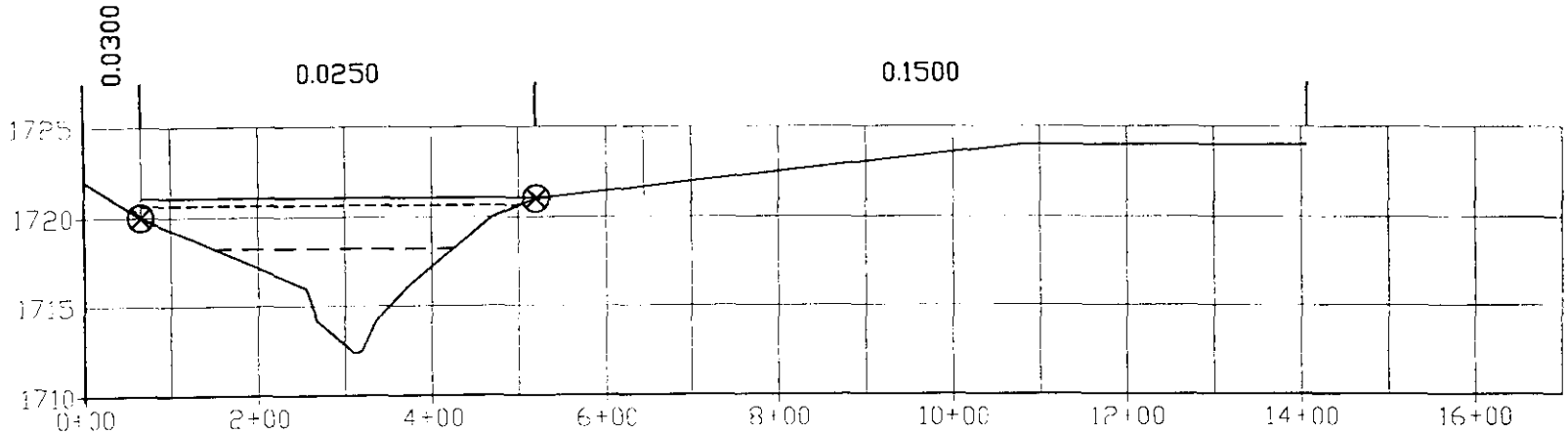
441

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1717.85 ft

Profile 2
Flow Discharge = 4943.91 cfs
----- 50-YEAR WSEL = 1720.21 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL = 1720.62 ft

Profile 4
Flow Discharge = 5504.38 cfs
——— 500-YEAR WSEL = 1720.62 ft



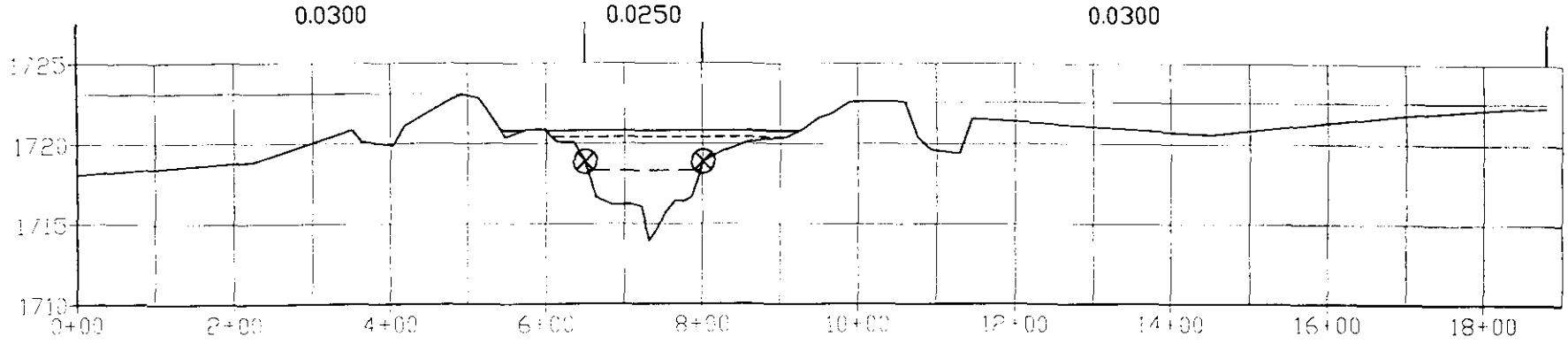
442

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1718.20 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1720.62 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1721.04 ft

Profile 4
Flow Discharge = 5993.00 cfs
------ 500-YEAR WSEL = 1721.04 ft



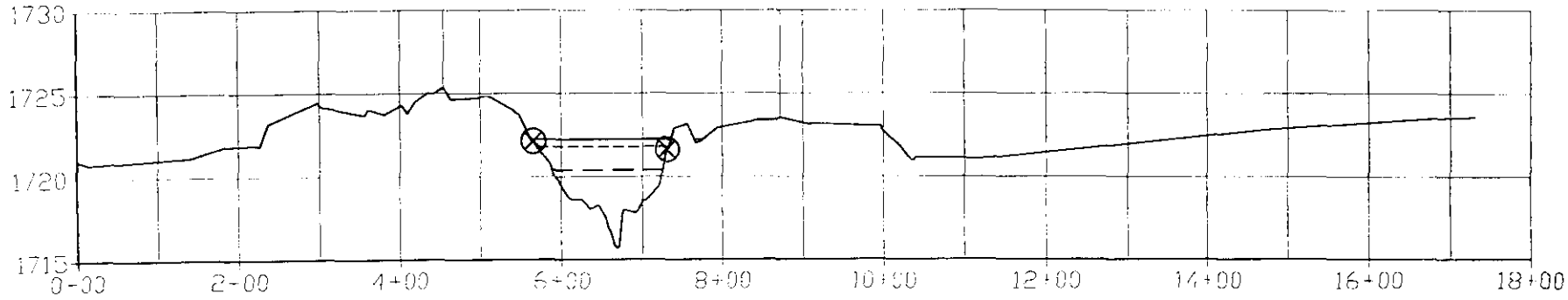
444

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1718.35 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1720.41 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1720.79 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1720.79 ft



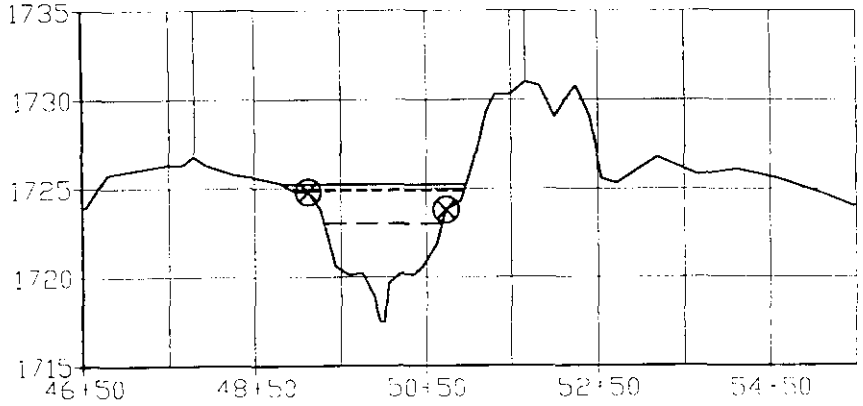
446

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1720.37 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1721.82 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1722.26 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1722.26 ft



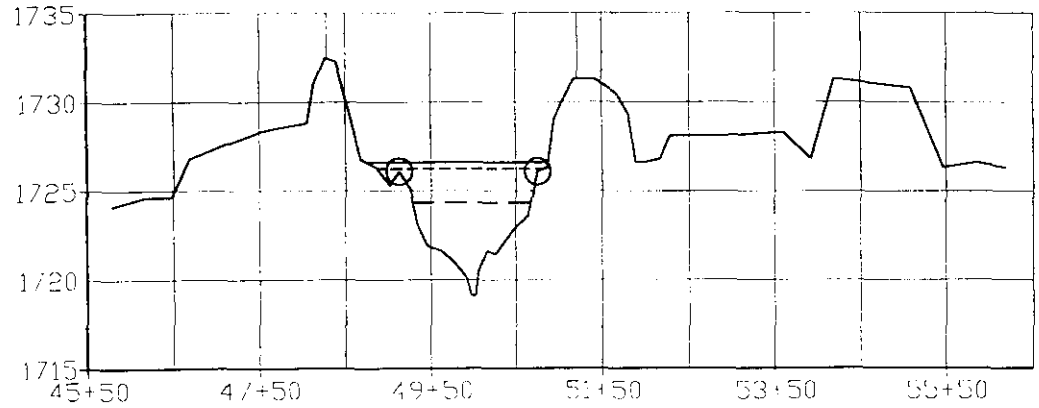
448

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1723.01 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1724.88 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1725.22 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1725.22 ft



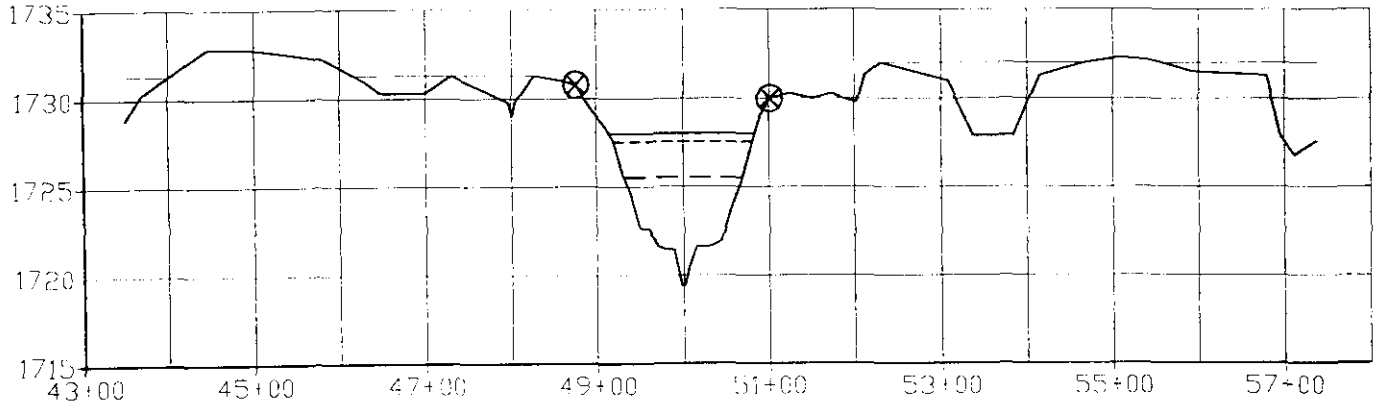
450

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1724.33 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1726.22 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1726.61 ft

Profile 4
Flow Discharge = 5993.00 cfs
—— 500-YEAR WSEL = 1726.61 ft



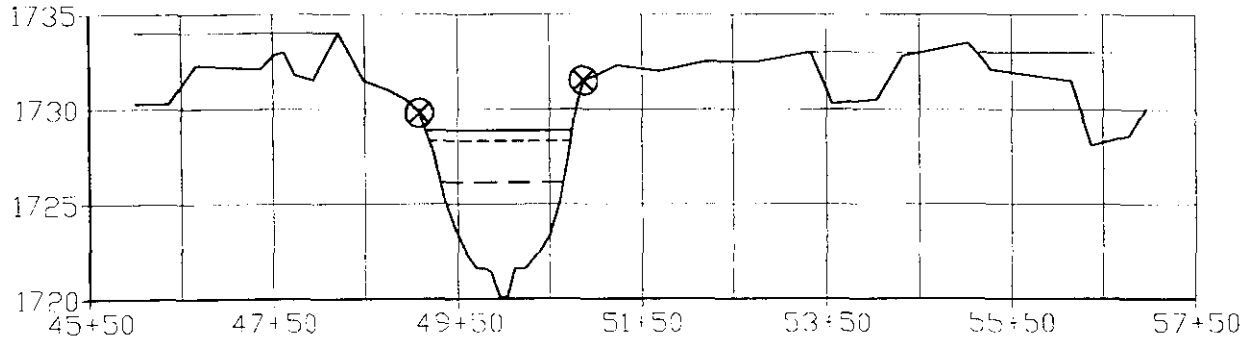
452

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1725.50 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1727.55 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1728.01 ft

Profile 4
Flow Discharge = 5993.00 cfs
– – —— 500-YEAR WSEL = 1728.01 ft



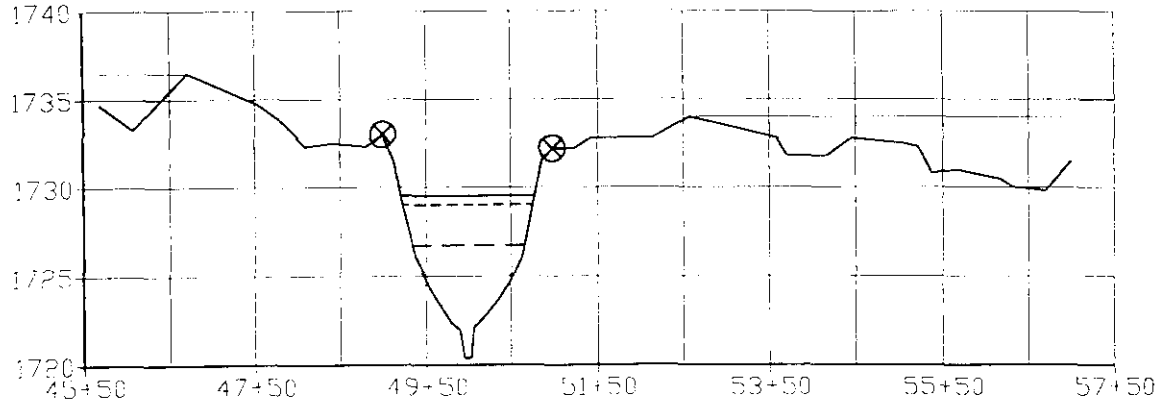
454

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1726.13 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1728.34 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1728.86 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1728.86 ft



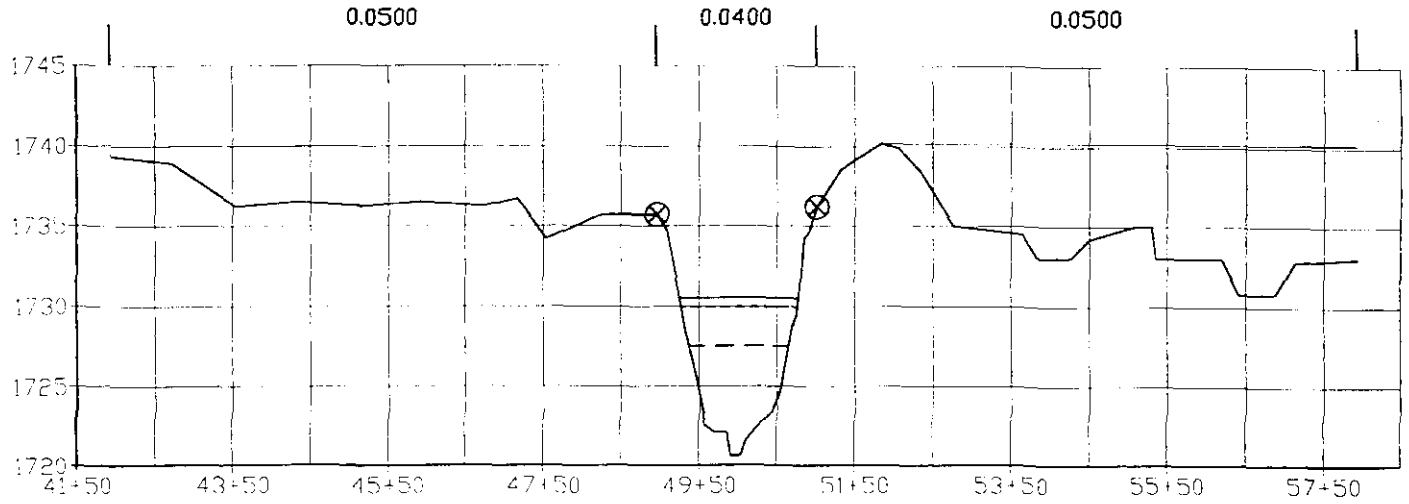
456

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1726.68 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1728.97 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1729.51 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1729.51 ft



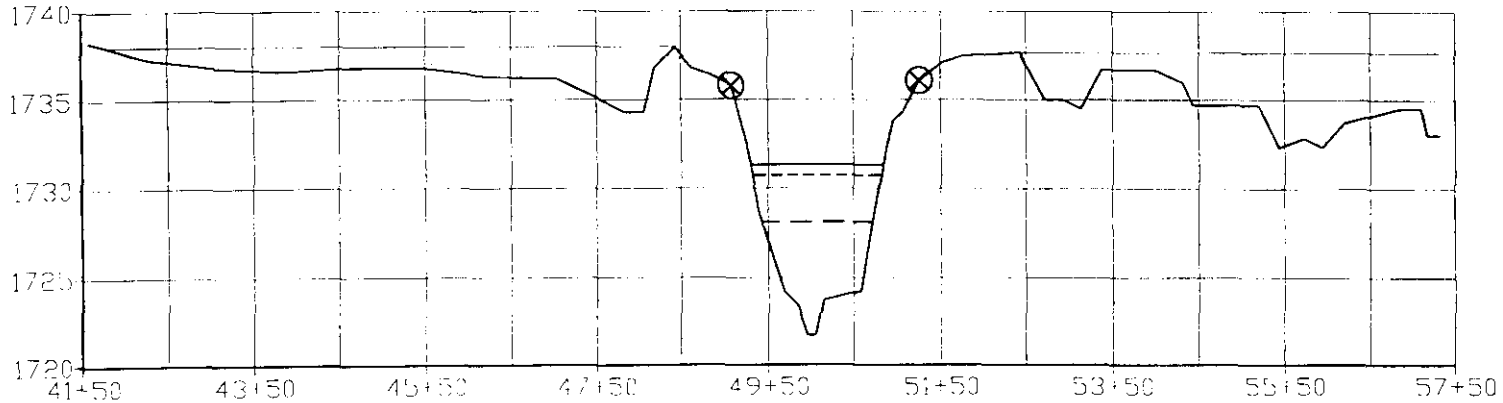
458

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1727.51 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1729.95 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1730.53 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1730.53 ft



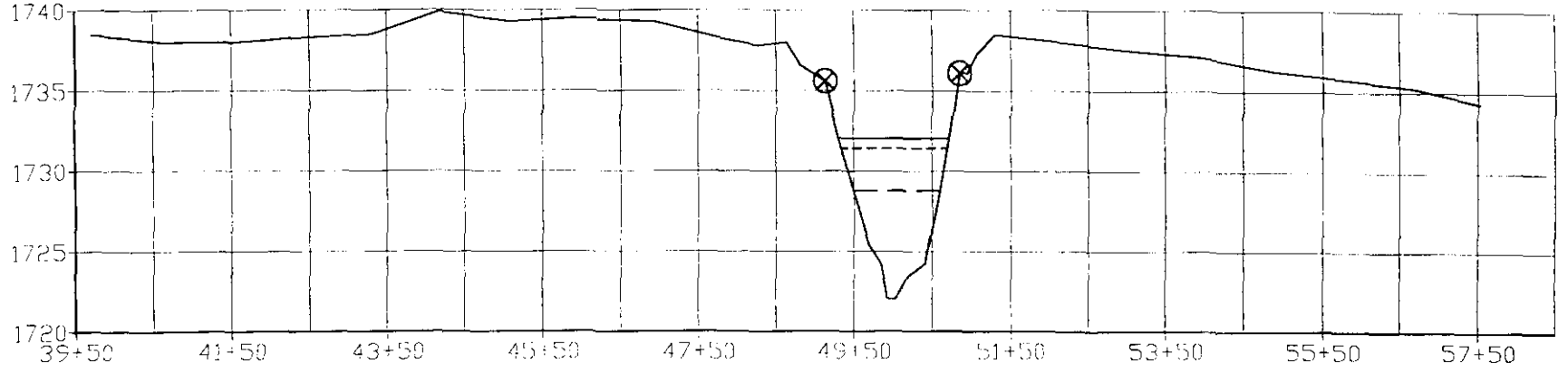
460

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1728.11 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1730.72 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1731.33 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1731.33 ft



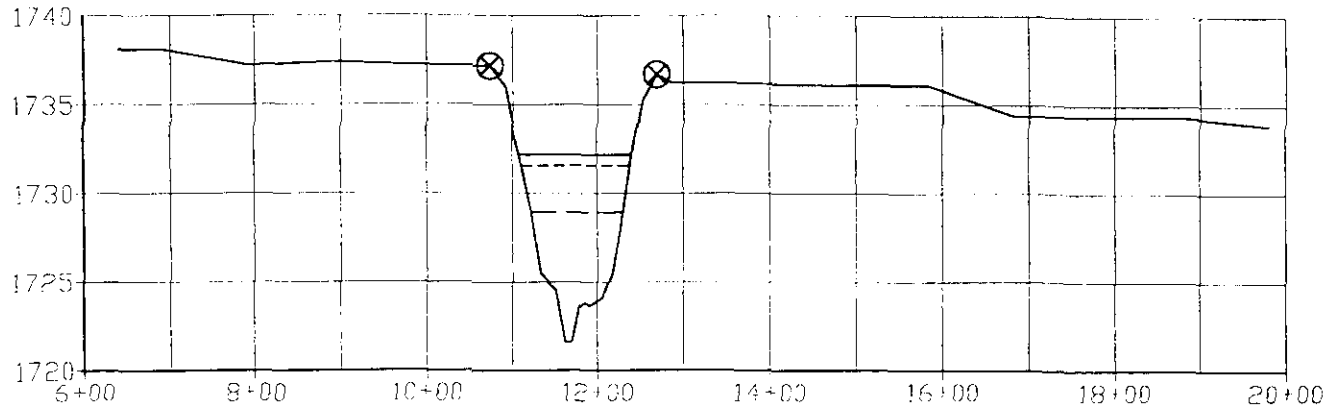
468

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1728.75 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1731.41 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1732.04 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1732.04 ft

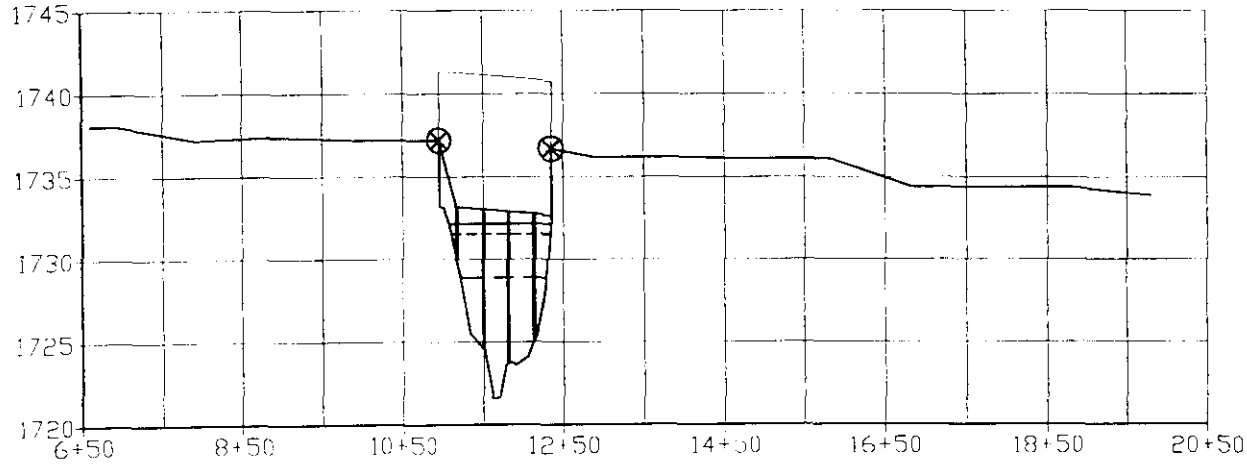


Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1728.91 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1731.57 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1732.19 ft

Profile 4
Flow Discharge = 5993.00 cfs
— — 500-YEAR WSEL = 1732.19 ft



469

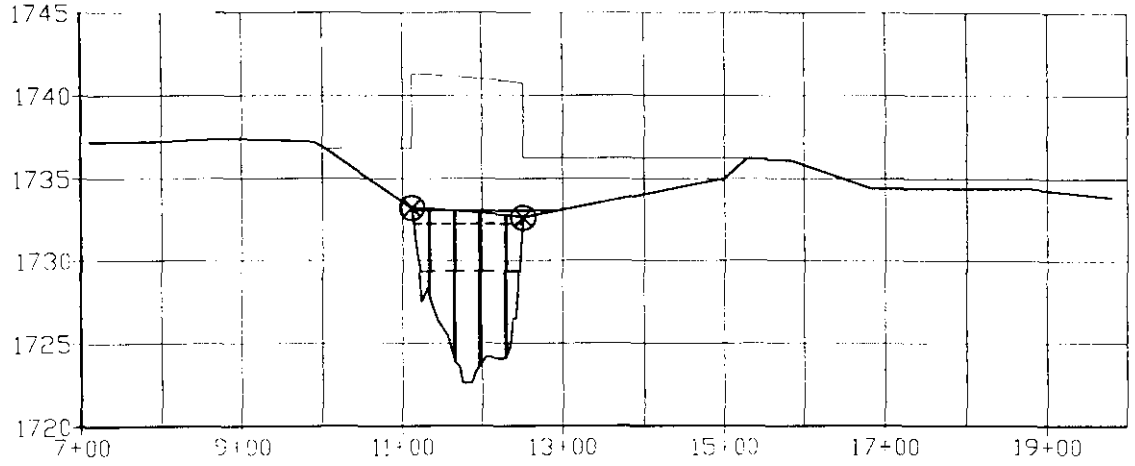
Downstream Nellis Blvd
Normal Bridge

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1728.89 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1731.53 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1732.14 ft

Profile 4
Flow Discharge = 5993.00 cfs
— — 500-YEAR WSEL = 1732.14 ft



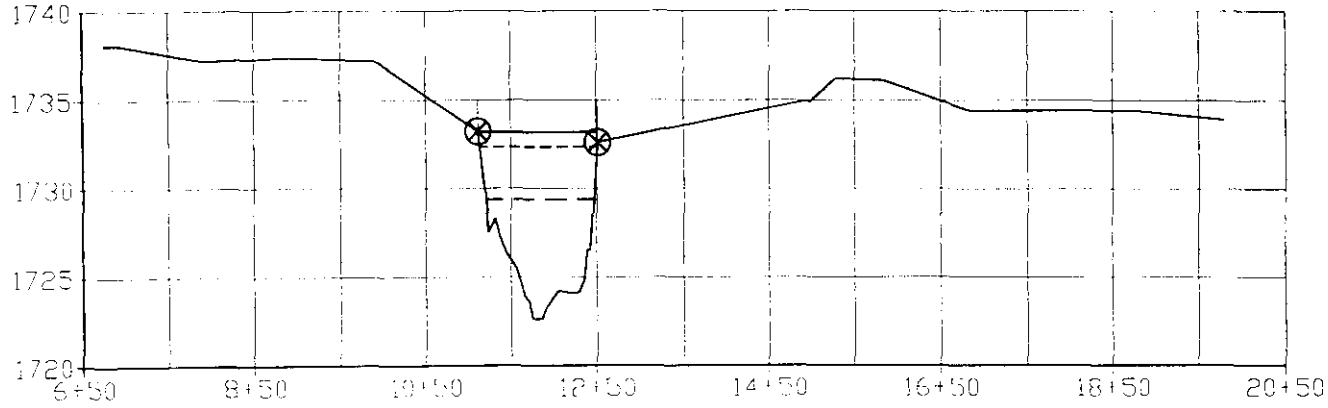
470

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1729.33 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1732.24 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1733.05 ft

Profile 4
Flow Discharge = 5993.00 cfs
–·–·– 500-YEAR WSEL = 1733.05 ft



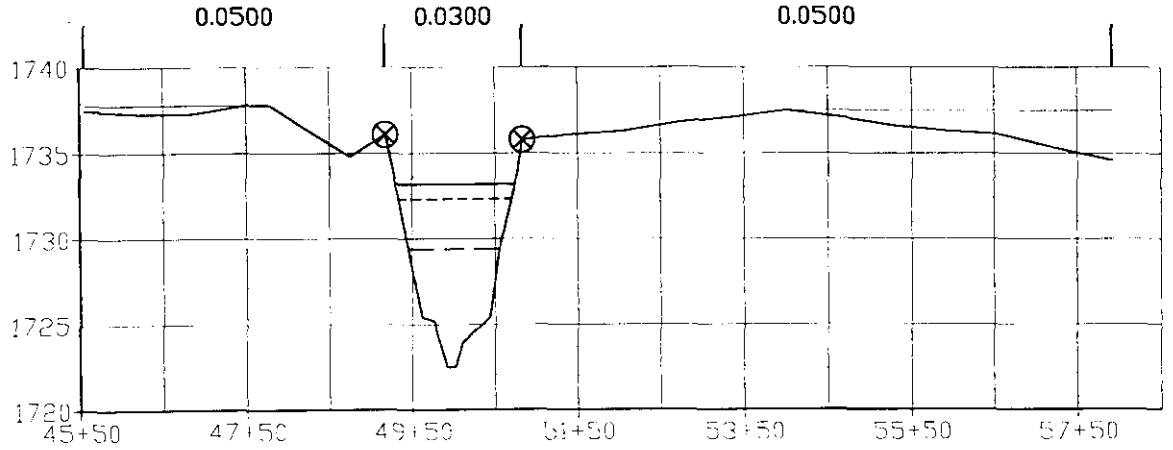
470.1

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1729.37 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1732.31 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1733.16 ft

Profile 4
Flow Discharge = 5993.00 cfs
·····— 500-YEAR WSEL = 1733.16 ft



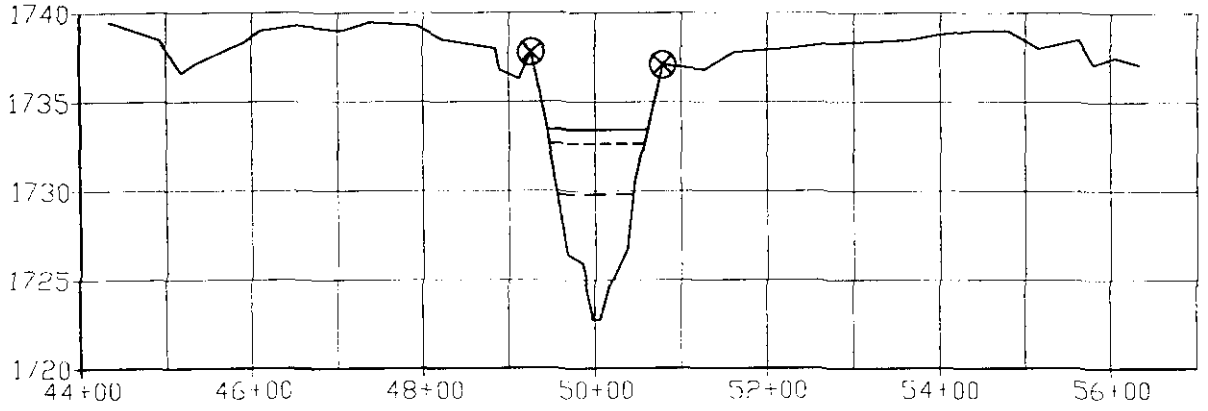
471

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1729.39 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1732.32 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1733.17 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1733.17 ft



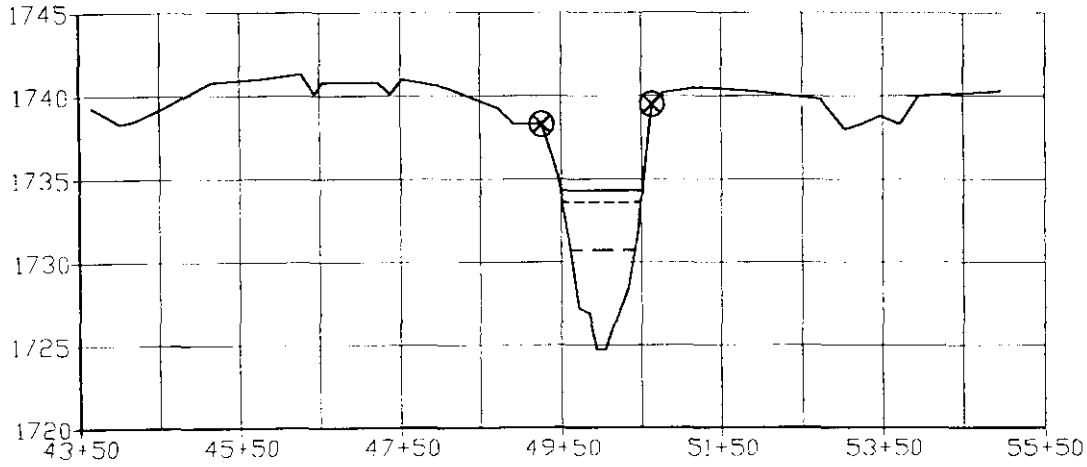
472

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1729.77 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1732.65 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1733.46 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1733.46 ft



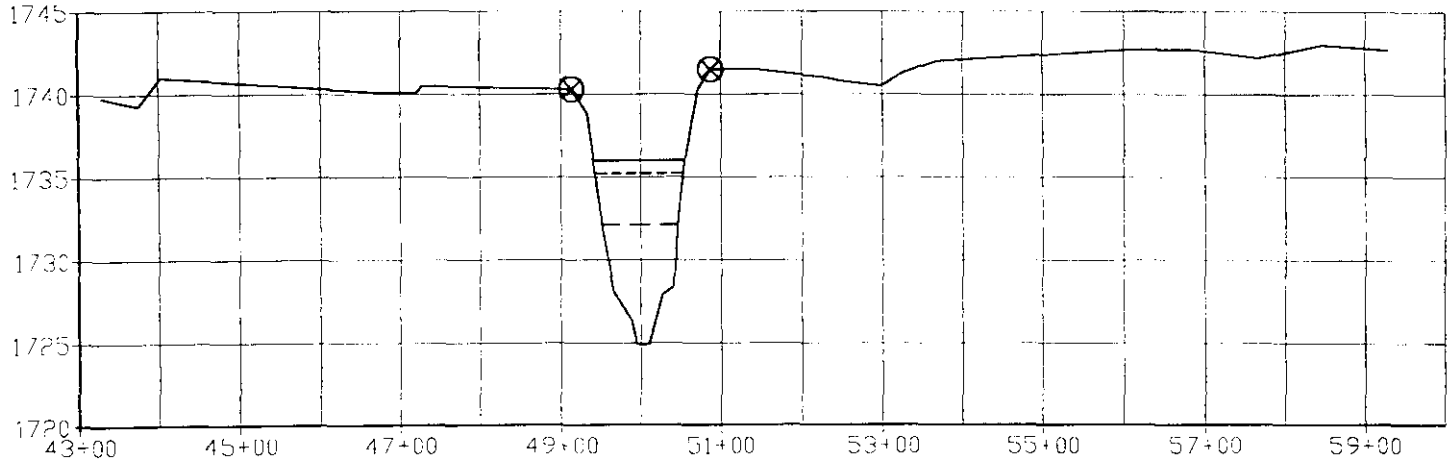
474

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1730.72 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1733.58 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1734.33 ft

Profile 4
Flow Discharge = 5993.00 cfs
— — 500-YEAR WSEL = 1734.33 ft



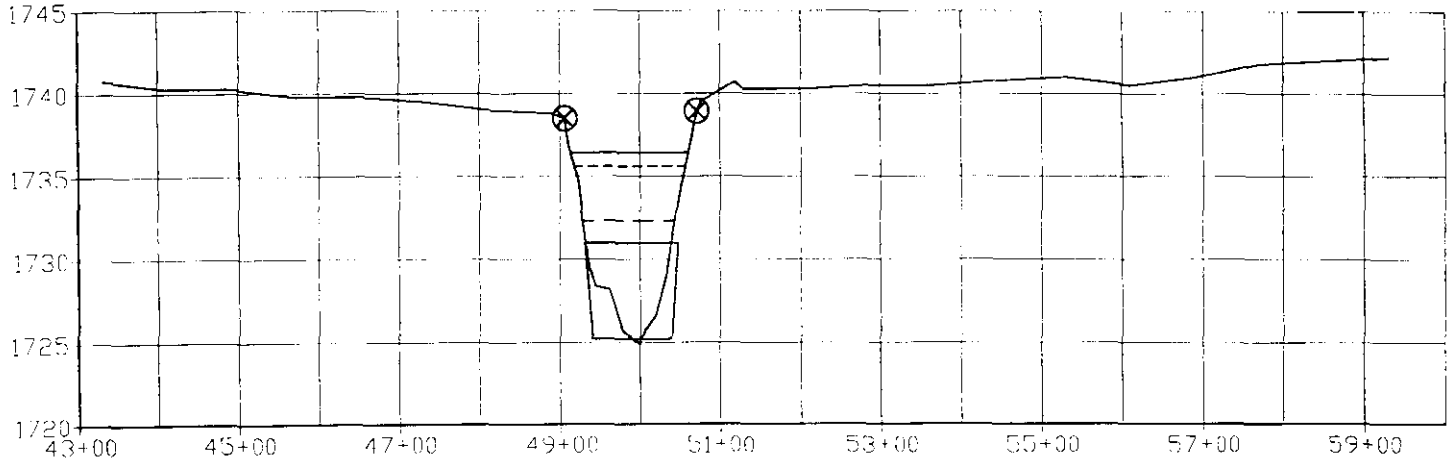
478

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1732.11 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1735.23 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1736.00 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1736.00 ft



479.1

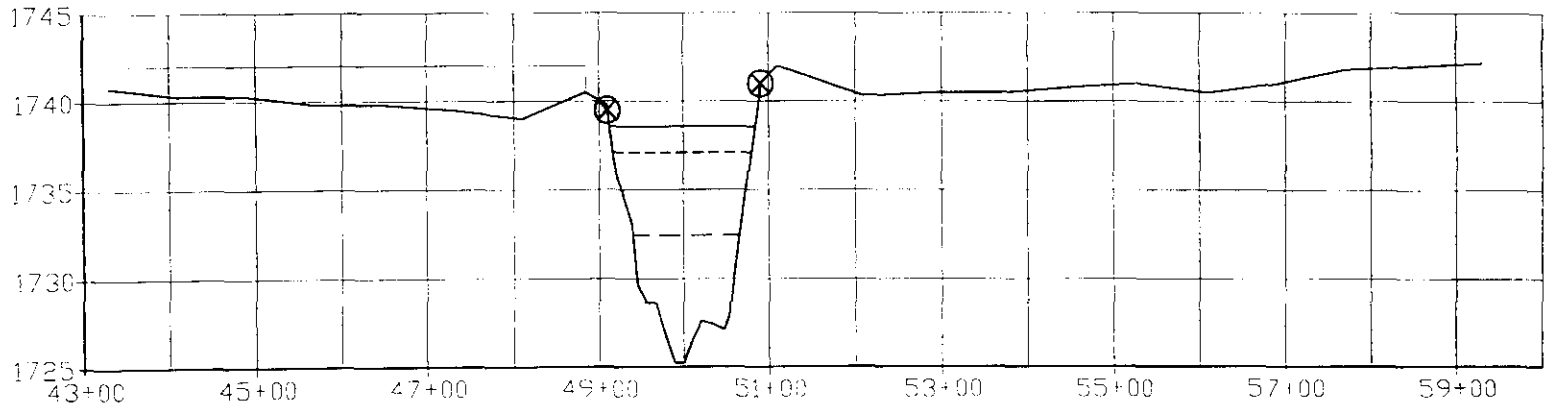
Downstream Charleston Blvd.
Special Bridge

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1732.31 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1735.58 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1736.40 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1736.40 ft



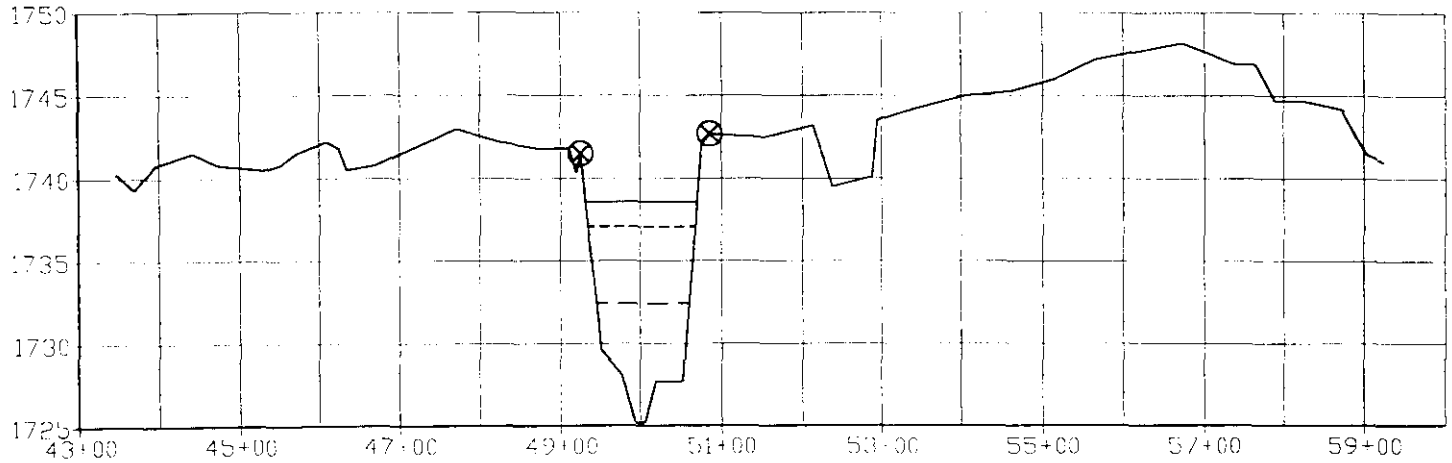
480

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1732.43 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1737.08 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1738.58 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1738.58 ft



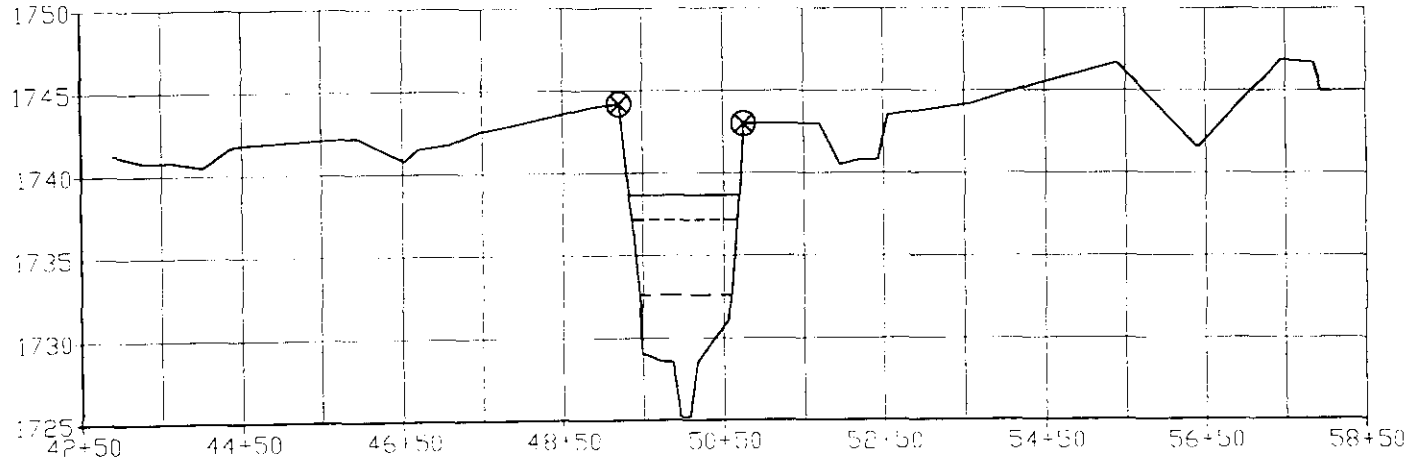
481

Profile 1
Flow Discharge = 2200.00 cfs
– – – 10-YEAR WSEL = 1732.43 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1737.07 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1738.55 ft

Profile 4
Flow Discharge = 5993.00 cfs
——— 500-YEAR WSEL = 1738.55 ft



482

Profile 1
Flow Discharge = 2200.00 cfs
- - - 10-YEAR WSEL = 1732.59 ft

Profile 2
Flow Discharge = 5100.00 cfs
----- 50-YEAR WSEL = 1737.13 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL = 1738.61 ft

Profile 4
Flow Discharge = 5993.00 cfs
— — 500-YEAR WSEL = 1738.61 ft

HYDRAULIC ANALYSES

HEC-2, Duck Creek to Charleston Blvd. – Floodway

LVFW.DAT

2Ba7 CID32003 001

Study Contractor: Nolte & Associates, Inc.

HYDRAULIC MODELS INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Duck Creek to Charleston - floodway	2Ba7 CID 32003	002

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1**********************************************
*  HEC-2 WATER SURFACE PROFILES              *
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*  Version   4.6.0;  February 1991           *
*                                            *
*  RUN DATE    26JAN99    TIME   09:35:00    *
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*  U.S. ARMY CORPS OF ENGINEERS              *
*  HYDROLOGIC ENGINEERING CENTER             *
*  609 SECOND STREET, SUITE D                *
*  DAVIS, CALIFORNIA 95616-4687              *
*        (916) 756-1104                      *
**********************************************
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X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                   X
X     X  X        X     X             X
X     X  XXXXXXX   XXXXX              XXXXXXX
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THIS RUN EXECUTED 26JAN99 09:35:00

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**********************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
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T1      LAS VEGAS WASH, CLARK COUNTY, NEVADA - Duck Creek to Charleston Blvd.
T2      Nolte and Associates, Jan 1998
T3      Boundary condition: WSEL at XS306 from LVDUCK.DAT
T4      Floodway from confluence with Duck Creek to Charleston Blvd.

J1  ICHECK    INC       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
                2                                                         7100   1572.44

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1                   -1                                                -6

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150                 200

J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********

    -10       -10

NC    0.045     0.045     0.045     0.1       0.3
ET                9.1       7.1                                   4940      5418.68   4024.65   5418.26
X1        306       32    4977.6    5446.2
GR       1576   3953.6    1572.9    4001.1    1571.8      4056   1570.8    4140.1    1570.5    4211.8
GR     1571.3   4260.6    1570.2    4316.1    1569.7    4387.1   1569.7    4444.3    1570.8    4516.5
GR       1571   4574.1    1571.3    4825.5      1571    4889.2  1571.26    4977.6    1561.1    4989.4
GR     1561.1     5000    1561.1    5008.1    1573.2    5446.2   1573.5    5488.4    1573.5    5580.9
GR       1574   5663.3    1574.6    5731.6    1574.8    5839.5   1575.1    5896.2      1577    5932.6
GR     1577.3   5991.8      1577    6065.5    1577.3    6152.9   1578.1    6262.6    1577.5    6377.5
GR     1577.3   6462.8    1578.1    6557.4

NC    0.045     0.045     0.035                                 183.53      1190         0    2650.2
ET                9.1       7.1
X1        308       38     102.5     399.7       448       290       631
GR     1587.7        0    1586.7        27    1580.7      63.1   1576.4     102.5    1574.5     177.9
GR       1571    240.2    1571.5     305.9    1575.3     360.3   1575.8     399.7    1574.8     479.2
GR     1575.6    557.5    1575.8     632.8   1575.99       636   1573.7     957.7    1572.6    1004.8
GR     1571.8   1115.5    1574.5    1672.4    1574.2    1780.9     1575    1857.1    1574.8    1921.4
GR     1575.3   1983.4    1578.6    2011.7    1578.3    2048.5   1578.6    2102.3    1578.3    2167.3
GR     1578.3   2224.4    1579.6    2271.8    1579.6    2323.2   1579.1    2370.7    1579.1    2396.6
GR     1579.1   2466.9    1579.1    2546.9    1578.6    2593.3   1581.5    2622.1    1581.3    2650.2
GR     1579.9   2673.1      1581    2683.8    1582.1    2692.6
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ET                9.1       7.1                                   318      1375         0    2702.4
X1        310       36       318       376       352       180       490
GR     1587.7        0    1587.7      57.9    1587.7     105.3   1580.2     144.6    1574.5     200.2
GR     1573.2    249.8    1575.3       303   1577.23       318  1572.23       325    1572.2       370
GR     1577.2      378    1575.8     422.2    1577.7     559.8   1576.4     634.7    1575.8     705.1
GR     1576.1    789.7      1575    1836.5      1575    1913.7     1575    1990.4      1575    2097.4
GR     1575.3   2128.7    1577.7    2158.8    1578.8    2211.9   1579.1    2272.6    1579.9    2329.9
GR     1581.5   2395.7    1582.1    2467.1    1582.3    2520.5   1582.3      2551      1581    2571.4
GR     1579.1   2604.5    1579.1    2621.8    1579.6    2654.6     1581    2694.7    1582.6    2702.4
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GR	1582.9	2727.7								
ET		9.1	7.1				4923.7	6100	4696.9	6800
X1	312	60	4923.7	5029.5	490	220	450			
X3	10									
GR	1583.5	4696.9	1587.2	4747.3	1587.8	4764.3	1585.6	4794	1581	4809.4
GR	1577.8	4838.5	1576.7	4876.7	1577.3	4923.7	1576.4	4950.4	1572.1	4985.1
GR	1571.8	5000	1572.1	5011.3	1577.8	5029.5	1577	5078.9	1577	5128.4
GR	1578.3	5150.2	1578.6	5197	1578.6	5261.1	1578	5291.7	1578.1	5326.6
GR	1577.5	5392.4	1578.1	5445	1578.6	5488.5	1578.6	5527.5	1578.9	5571.4
GR	1579.4	5645.8	1578.3	5736	1578.1	5794.8	1577	5851.8	1574.8	5896.9
GR	1574.6	5928.6	1574.3	5973.8	1571.8	6031	1565.1	6056.3	1565.1	6073.9
GR	1574.8	6429	1575.4	6502.8	1575.9	6598.2	1577.5	6645.1	1579.4	6727.1
GR	1577.3	6752.1	1579.4	6777.8	1580	6834.7	1580	6895.1	1581	6955.2
GR	1580.2	6993.5	1581.3	7047.9	1583.7	7088.1	1583.8	7098.2	1584	7129.6
GR	1582.7	7151.6	1581.3	7177.3	1580.5	7232.1	1580	7255.9	1579.9	7264
GR	1580.2	7286.8	1581.6	7316.6	1582.7	7375.4	1584.3	7389	1585.6	7453.2
ET		9.1	7.1				4878.7	6120	4643.7	7530.2
X1	314	66	4843.5	5114.6	390	255	354			
GR	1587.7	4643.7	1584.2	4661.6	1583.2	4686.7	1582.4	4704.9	1581.2	4745.3
GR	1581.5	4796.8	1581	4843.5	1573.7	4993.5	1573.7	5000	1573.7	5004.3
GR	1580.5	5019.8	1581.3	5062.1	1581.8	5090.4	1583.2	5114.6	1583.2	5138.3
GR	1583.2	5162.3	1581.8	5187.6	1579.7	5215.8	1579.6	5241.4	1578.6	5275.5
GR	1579.4	5302.6	1578.6	5332.6	1578.9	5389	1580.5	5427.1	1581.6	5462.9
GR	1582.1	5505.4	1581.8	5556.5	1581.6	5599.6	1580.2	5624.6	1580.5	5655.1
GR	1581	5692.6	1580.8	5731.5	1579.7	5766.5	1578.3	5827.1	1577.8	6598.9
GR	1578.6	6627.8	1580.5	6661.5	1582.1	6681.3	1583.5	6701.1	1582.4	6721
GR	1581.2	6736.7	1581.2	6773.8	1580.1	6792.2	1580.1	6804.1	1580.8	6814.6
GR	1580.1	6836	1581.6	6873.3	1582.1	6930.1	1581.8	6958.3	1583.2	6989.2
GR	1583.2	7043.4	1584.2	7086.1	1586.1	7110.7	1587.8	7124.3	1587.4	7133.2
GR	1581.6	7158.9	1581.8	7195.3	1581.2	7208.2	1580.9	7240.8	1581.6	7260.4
GR	1583.5	7310.9	1584.5	7370.3	1584.5	7418.3	1584.2	7435.2	1585.9	7472.5
GR	1586.4	7530.2								
ET		9.1	7.1				4893.89	6090	4666.3	7395.4
X1	316	33	4666.3	5401.8	400	560	550			
GR	1585	4666.3	1584.2	4705.3	1583.9	4730.5	1583.9	4774.5	1582.6	4837.7
GR	1575.9	4995.7	1575.5	5000	1575.5	5006	1582.8	5344	1584.5	5401.8
GR	1584.5	5446.5	1582.8	5478.6	1580	5996	1580	6545	1582.8	6725
GR	1584.2	6766.6	1584.7	6820.2	1585.3	6875.9	1587.4	6907.9	1591.8	6956.3
GR	1591.8	6978.1	1590.7	7008.5	1588.2	7050.4	1589.8	7075.6	1590.4	7107.9
GR	1587.2	7141.1	1586.9	7161.9	1586.9	7181.1	1588.2	7210.2	1589.6	7244.9
GR	1585.8	7269.6	1585.8	7303.3	1588.3	7325.4				

ET		9.1	7.1				4850	6200	4749.9	6900
X1	318	29	4970	5046	430	494	510			
GR	1588.7	4749.9	1588.7	4774.4	1588.4	4813.3	1586.6	4840.6	1586	4970
GR	1582.1	5000	1582.1	5030	1586	5040	1586.3	6590.9	1585	6622.8
GR	1585.3	6690.6	1587.1	6740.3	1587.1	6774.4	1587.7	6808.7	1589.8	6847.3
GR	1591.1	6925.5	1590.3	6946.7	1587.4	7039.8	1587.4	7073.8	1588.2	7100.4
GR	1591.1	7150.3	1590.6	7185.4	1589.9	7199.1	1592.8	7298.9	1593.6	7328.9
GR	1593.6	7366.2	1593.6	7397.7	1595.2	7418.4	1596.7	7470.9		
ET		9.1	7.1				4935.64	6350	4618.1	7050
X1	320	29	4978	5013	255	280	310			
GR	1593	4618.1	1596.2	4662.4	1596.4	4685.8	1594.8	4812.2	1590.8	4901.4
GR	1588.7	4928.8	1588	4978	1584	4998	1583.8	5000	1586	5013
GR	1586	5018	1598	6798	1590.3	6827.7	1590.9	6860.2	1592	6889.7
GR	1592.8	6939.1	1592	6948	1594.1	6978.7	1595.4	7023.3	1595.4	7046.2
GR	1596.5	7144	1597.3	7194.6	1597.3	7244.9	1599.5	7287	1599.5	7330
GR	1600.3	7380.9	1600.5	7428.2	1599.7	7479.5	1599.5	7503.2		
ET		9.1	7.1				5350	6820	5000	7404.8
X1	322	19	5460	5530	380	440	430			
GR	1599.1	5000	1598	5047.1	1597	5108.1	1596.4	5162.3	1593.8	5210.3
GR	1592.4	5271.2	1591.9	5340.8	1591.9	5379.9	1591.4	5460	1584.4	5470
GR	1584.4	5520	1591.4	5530	1591.5	5673.5	1592	5680	1592	5761.8
GR	1591	6110	1592	6650	1594.8	7404.8	1596	7540		
ET		9.1	7.1				5375	6900	5000	7000
X1	324	23	5540	5614	370	450	490			
GR	1601.3	5000	1600.5	5030.1	1598	5069.4	1597.8	5095.2	1597	5148.1
GR	1595.6	5187.1	1595.4	5222	1595.4	5309	1593.8	5365.4	1594.2	5540
GR	1588.2	5547	1588.2	5607	1594.2	5614	1595	5695	1593.8	6775.3
GR	1594.6	6893.7	1595.9	7039.4	1594.3	7129.7	1596.2	7194.5	1600.2	7605
GR	1600.5	7677.4	1601.5	7814.1	1602.2	7872				
ET		9.1	7.1				5600.13	7410	5000	8414.8
X1	326	26	5620	5660	375	530	550			
GR	1604.5	5000	1604.5	5029.3	1602.1	5061.1	1599.9	5107.6	1599.4	5153.5
GR	1600.5	5187.6	1599.4	5207.2	1600.2	5246.5	1600.7	5279.1	1599.6	5315.7
GR	1599.9	5358.3	1600.2	5432.5	1599.9	5505.4	1599.9	5565.7	1597.4	5620
GR	1591.4	5625	1591.4	5655	1597.4	5660	1597	7278.1	1597.5	7438.9
GR	1599.1	7532.5	1600.5	7795.1	1602.6	8071.8	1602.6	8141.4	1604.5	8345.6
GR	1608	8414.8								
ET		9.1	7.1				5387.14	7170	5000	7170
X1	328	17	5430	5462	290	270	320			

GR	1604.5	5000	1606.8	5062.4	1606.8	5081.3	1605.5	5134.9	1604.2	5216.2
GR	1604.5	5266.1	1600	5430	1595	5436	1595.1	5456	1600	5462
GR	1600.2	7633.5	1601	7747.3	1602.8	7846.7	1602.8	7939	1603.1	8033.5
GR	1604.7	8207.6	1608	8395						

ET		9.1	7.1				5430.11	7000	5000	7000
X1	330	25	5430	5470	380	490	400			
GR	1611.9	5000	1610.9	5036.5	1609.8	5064.5	1610.3	5159.3	1610.1	5202
GR	1608.2	5241.8	1606.6	5267.1	1605.3	5313.4	1605.3	5357.3	1604.3	5430
GR	1597.3	5440	1597.3	5460	1604.3	5470	1604.2	5692.7	1603.9	5794.5
GR	1601.8	7066.8	1602.8	7119.3	1601.5	7160.8	1600.2	7607	1606.1	8493.6
GR	1606.6	8578.4	1608.5	8772.7	1608.7	8793	1610.9	8805.8	1611.7	8814.6
ET		9.1	7.1				5728.92	7000	5000	7000

Attempts were made to remove .01' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to comptational shortcomings of HEC-2 computer program.

Attempts were made to remove .01' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to comptational shortcomings of HEC-2 computer program.

X1	332	28	5651.3	5879.7	400	320	440			
GR	1620.5	5000	1620.5	5015.2	1618.1	5056.4	1615.1	5089.7	1616.7	5115.9
GR	1617	5143.6	1615.9	5168.7	1615.9	5225.8	1615.9	5258.5	1614.9	5281.5
GR	1615.7	5357.8	1615.4	5571.1	1615.1	5601.7	1615.7	5651.3	1614.6	5666.8
GR	1611.1	5717.3	1605	5765.3	1605	5801.6	1612.2	5879.7	1611.9	5924.3
GR	1610.9	5970.4	1606	7237	1604	7587	1602.8	7932.9	1609.5	8967.3
GR	1611.4	9191.6	1613.8	9205.3	1615.7	9225				
NC	0.04	0.04	0.035							
ET		9.1	7.1				5928.15	6745.19	5000	7083

Attempts were made to remove .01' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to comptational shortcomings of HEC-2 computer program.

Attempts were made to remove .01' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to comptational shortcomings of HEC-2 computer program.

X1	334	57	5960	6015	405	520	410			
GR	1627.9	5000	1626.9	5038.4	1626.1	5063.4	1622.9	5124.2	1623.4	5132.6
GR	1622.3	5190.7	1620.7	5206.3	1623.7	5265.2	1621.8	5325.3	1618.1	5353.3
GR	1619.1	5360	1622.1	5414	1619.9	5427.9	1618.3	5440.4	1620.7	5474.7
GR	1621	5511	1619.9	5545.5	1617.3	5555.5	1620.5	5584.9	1621.3	5626.3
GR	1621.5	5667.4	1621.5	5690.4	1619.9	5735.3	1617.3	5755.6	1619.7	5769.5
GR	1620.5	5778.7	1621	5816.1	1620.5	5840.3	1619.4	5851.9	1616.7	5862.8
GR	1618.1	5882.4	1618.1	5897.9	1609.8	5960	1604.9	5975	1604.9	6000
GR	1609.8	6015	1615.7	6122.1	1615.9	6169.8	1612.2	6234	1612	6329
GR	1611.9	6369.5	1616	7083	1612	8153	1609.3	8358.9	1612	8638
GR	1612.2	8692	1613.8	8767.7	1614.3	8893.3	1614.6	9020.8	1614.3	9097.5
GR	1614.6	9173.7	1615.7	9286.3	1615.7	9364.7	1617	9446.5	1616.5	9502.6
GR	1619.7	9521.9	1619.7	9533.9						
ET		9.1	7.1				4982.58	5497.78	3674.9	5650
X1	336	77	4956.7	5034.8	420	310	440			
GR	1635.2	3574.9	1632.5	3590	1634.3	3607.6	1636	3623.4	1636.2	3645.4
GR	1636	3676.4	1634.3	3728.8	1632.5	3755.4	1633.8	3763.5	1634.6	3810.9
GR	1635.2	3826.8	1634.6	3859.3	1633.6	3915.6	1633	3941	1630.6	3969.1
GR	1629	3996.3	1627.1	4022.8	1626.3	4064.3	1625.3	4114.4	1625.3	4184.8
GR	1623.7	4242.7	1623.9	4314.6	1623.7	4382.2	1623.7	4428.4	1622.9	4460
GR	1621.5	4542.6	1619.9	4591	1620.7	4621.7	1621.8	4651.6	1622.1	4680.2

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GR	1619.1	4700.1	1618.9	4716	1622.1	4731.4	1623.7	4744.6	1624.5	4783.5
GR	1624.5	4830.6	1623.4	4889.2	1621.8	4929.3	1621	4956.7	1618.9	4977.5
GR	1617	4984.7	1615.1	4987.1	1613	4988.7	1611.1	4990.6	1609	4992.1
GR	1607.1	4993.2	1607.1	5000	1609.3	5002.6	1610.9	5005.4	1613	5007.7
GR	1614.9	5009.4	1617	5011.5	1617.5	5025.8	1618.1	5034.8	1617.3	5078.4
GR	1618.1	5105.4	1618.1	5130.5	1616.2	5161.6	1614.9	5248.2	1615.4	5285.3
GR	1613.3	5320.9	1620.5	5619.9	1620.5	5659.8	1620.2	6603.5	1620.2	6683.3
GR	1619.6	6900.3	1619.4	6970.3	1618	7020.3	1617.1	7080.3	1617	7140.3
GR	1618	7290	1619.7	7717.4	1620.5	7910	1621	7991.6	1620.2	8046.5
GR	1621.5	8511.4	1622.9	8530.3						
ET		9.1	7.1				6576.13	7853.48	6400	8000

Attempts were made to remove .03' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to comptational shortcomings of HEC-2 computer program.

Attempts were made to remove .03' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to comptational shortcomings of HEC-2 computer program.

X1	338	54	6509.9	6791	545	475	542			
X3	10									
GR	1647.4	5000	1645.8	5070	1644.8	5110.8	1646.1	5154.7	1645.8	5199.7
GR	1645	5278.4	1643.7	5391.4	1642.6	5460	1639.2	5536.1	1633.8	5553.5
GR	1637.6	5576.7	1640.8	5655.7	1640.5	5688.6	1638.3	5735.3	1637.3	5782.2
GR	1635.2	5841.8	1632.8	5875.5	1630.3	5901.9	1633.3	5929	1633.8	5979.9
GR	1633	6032.8	1633	6079	1630.9	6106.2	1626.6	6134.2	1626.9	6167.8
GR	1626.9	6222.2	1626.9	6258.6	1627.4	6291	1629.8	6329.3	1631.4	6359.2
GR	1632.2	6403.7	1630.9	6466.8	1629	6509.9	1629	6563.8	1627.4	6603.2

GR	1625.5	6622.1	1625.5	6700	1628.2	6791	1627.9	6897.3	1626.9	6954
GR	1627.1	7153.6	1627.1	7194.7	1628	7750	1630.3	8226.6	1629.5	8263.7
GR	1627.7	8284.5	1626.5	8850	1628	8960	1628.7	9020	1628	9110
GR	1625.8	9677.5	1626.9	9899.2	1627.4	9991.3	1632	10180		
ET		9.1	7.1				6000	7220	5000	7600
X1	340	48	6275	6337	415	420	440			
GR	1648.5	5000	1648.2	5051.6	1646.9	5091.8	1644.5	5120.2	1643.2	5141.4
GR	1643.7	5155.7	1645.6	5246.3	1644.2	5307.7	1641	5380.8	1637.8	5424.4
GR	1633.6	5450.9	1631.4	5466.7	1633	5487.1	1629.8	5530.5	1629.6	5550.4
GR	1632.5	5562.9	1638.1	5594.6	1639.4	5624.7	1639.7	5687.3	1638.1	5725
GR	1637.3	5756.8	1638.3	5824.7	1638.1	5873.2	1635.8	5932	1635.4	5936.4
GR	1628	6275	1617.97	6276	1617.97	6336	1627.97	6337	1630	7350
GR	1631.4	7573.1	1631.4	7646.6	1631.9	7717.7	1631.1	7774.7	1630.9	7815.6
GR	1629.5	8367.6	1633	8739.8	1630.6	9685.1	1631.4	9768.9	1631.4	9863.1
GR	1631.1	9897.6	1636.2	9918.2	1636	10000.2	1634.6	10102.7	1634.9	10154.2
GR	1637.3	10167.8	1634.6	10186.7	1634.1	10198.6				
ET		9.1	7.1				5887.63	7026.7	5800	7200
X1	342	44	5945	6035	500	480	533			
GR	1646.6	5000	1646.6	5051.8	1644.8	5115.6	1643.4	5193.2	1642.6	5273
GR	1642.1	5311.2	1640	5345.6	1638.9	5378.9	1639.4	5426.9	1639.7	5451.7
GR	1640	5485.3	1637.8	5512.3	1639.4	5555.7	1639.2	5590.3	1638.3	5615.3
GR	1631.5	5945	1620.5	5995	1620.5	6005	1631.5	6035	1632	7022
GR	1634.6	7039.9	1634.9	7088.4	1635.4	7231.4	1634.3	7301.8	1633.6	7346.9
GR	1633	7368.1	1633.6	7412.8	1634.3	7482.2	1634.1	7558.3	1634.3	7619.3
GR	1634.6	7692.8	1635.2	7793.2	1634.9	7914.2	1635.2	8026	1635.4	8124.3

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GR	1635.7	8223.8	1634.9	8369.2	1634.9	8448.6	1634.6	8532.8	1633.8	8674.5
GR	1633.6	8740.7	1632.8	8803.3	1636.2	8984.7	1635.4	9007.2		
ET		9.1	7.1				5780	6675	5000	7000
X1	344	47	5900	5960	535	280	510			
GR	1645.6	5000	1645	5027.1	1643.7	5041.8	1642.6	5100	1642.4	5180.5
GR	1640.8	5267.1	1640.2	5345.8	1639.4	5404.4	1638.3	5478.2	1637.6	5590
GR	1631.6	5600	1631.6	5620	1637.6	5630	1637.3	5732.5	1638.3	5779.4
GR	1637	5818.3	1637	5900	1631.6	5910	1631.6	5950	1637	5960
GR	1638.1	6866.6	1638.3	6940.5	1638.1	7034.2	1637.3	7080.5	1636.2	7160.6
GR	1636.5	7204.3	1636.8	7302	1636.5	7392.8	1637.6	7465.9	1637.3	7569.1
GR	1637.6	7619.3	1637.6	7734	1637.8	7812.7	1639	7856.1	1638.3	8080.6
GR	1638.3	8170.6	1638.6	8232.3	1638.3	8321.5	1637.8	8410.8	1637	8496.4
GR	1637.3	8539.5	1637.3	8608.2	1638.3	8675.2	1637.8	8723.1	1641	9047.7
GR	1642.8	9074.5	1642.6	9103.6						
ET		9.1	7.1				5505.71	6500	5000	8444.3
X1	346	47	5600	5655	548	565	625			
GR	1647.8	5000	1647.8	5043.4	1647.6	5071.8	1644.9	5139.1	1644.4	5210.3
GR	1643.8	5257.7	1644.1	5314.1	1646	5372.8	1646	5429.9	1644.4	5468.4
GR	1645	5496.3	1643.3	5506	1643.5	5600	1635.5	5610	1635.5	5645
GR	1643.5	5655	1642	6744.1	1642	6798.9	1641.2	6832.9	1642.2	6850
GR	1641.7	6909.8	1641.2	6960.4	1641.2	7012.6	1641.7	7036.8	1641.7	7081
GR	1642	7169.1	1642.2	7254.3	1642.2	7344.6	1642.2	7427	1643	7472
GR	1643.6	7541.3	1643.6	7624.5	1644.1	7706.7	1643.8	7790.2	1643.6	7839.9
GR	1643.8	7909.1	1644.9	7990.7	1644.4	8061.8	1643.6	8083	1643.8	8153.8
GR	1644.1	8212.7	1644.6	8261	1644.1	8309.1	1646.5	8329.1	1646.5	8358.1
GR	1645.2	8392.5	1648.2	8444.3						
ET		9.1	7.1				5460	6300	5000	8081.1
X1	348	36	5560	5613	435	401	425			
GR	1650	5000	1649.4	5057.6	1649.7	5139.7	1650.2	5192.3	1650.2	5255
GR	1648.3	5320.5	1647	5371.7	1645.2	5394.5	1646.2	5417.5	1645.4	5444.8
GR	1645.5	5560	1641.5	5569	1641.5	5604	1645.5	5613	1643.6	6579.2
GR	1644.1	6658.8	1644.4	6754	1644.4	6852.8	1644.1	6930.2	1644.6	6965.3
GR	1644.9	7064	1645.2	7161.8	1645.7	7258.6	1646.2	7348.4	1646.2	7406.9
GR	1646.5	7439.7	1646.8	7529.7	1647.6	7616.1	1647.8	7721.4	1647.3	7794.3
GR	1646	7846	1646	7926.4	1647	7994.4	1647.8	8039.6	1647.3	8063.5
GR	1647.3	8081.1								
ET		9.1	7.1				5557.07	6274.2	5000	7929.2
X1	350	37	5556.6	5604	322	255	317			
GR	1654	5000	1654	5026.2	1652.6	5083.2	1652.9	5169.6	1652.1	5218.4
GR	1652.6	5316	1651.6	5384	1650.8	5456.6	1650	5511.1	1650	5546.8
GR	1650	5556.6	1641.4	5558	1641.4	5598	1647.4	5604	1644.4	6597.2
GR	1645.7	6674.7	1646.5	6729.5	1647	6757.9	1646	6818.2	1646.2	6870.7
GR	1647	6930.6	1646.5	6998.9	1646.5	7031	1647	7068.1	1647.3	7150.1
GR	1647.6	7232.2	1647.8	7275.1	1648.1	7353.6	1648.1	7426.9	1647.8	7467.7
GR	1648.3	7555.1	1649.2	7632.2	1649.4	7729.7	1649.4	7810.3	1648.9	7852.3
GR	1647.6	7889.5	1648.1	7929.2						

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ET		9.1	7.1				5530.34	6250	5475	7523
X1	352	35	5560	5604	245	277	245			
GR	1657.7	5000	1659.8	5021.5	1658.7	5038.8	1658.5	5092.7	1658.5	5112.5
GR	1655.6	5151.7	1654.5	5191.6	1652.9	5227.3	1651	5264.2	1650	5284.2
GR	1649.7	5307.6	1650.8	5325.4	1651.3	5355.9	1650.2	5381.4	1653.2	5460.2
GR	1653.2	5478.6	1651	5504.4	1648.9	5560	1642.85	5567	1642.85	5597
GR	1649.8	5604	1648.1	6532.7	1647.6	6601.9	1648.1	6679.6	1648.9	6758.7

GR	1649.4	6820.3	1650	6904.5	1650.2	6973.4	1651.3	7041.5	1650.5	7117
GR	1651.3	7203.2	1651.6	7290	1651.6	7372.5	1652.6	7459	1652.6	7523
ET		9.1	7.1				4958.07	5757.29	4379.8	8217
X1	354	52	4944.6	5074.7	487	468	477			
GR	1665.4	4379.8	1665.4	4393	1666.5	4402.9	1666.2	4412.6	1665.4	4421.5
GR	1666.7	4445.7	1666.7	4488.2	1664.9	4541.8	1664.1	4594.9	1663.3	4647.2
GR	1661.9	4690.6	1660.9	4720	1654.2	4734.5	1654.2	4757.2	1656.1	4832.3
GR	1655.6	4858.4	1657.4	4870.9	1657.7	4910.6	1657.7	4944.6	1647	4975.6
GR	1646	5000	1647	5023.6	1658.2	5074.7	1656.6	5108.5	1650.2	5851.6
GR	1651	5916.3	1651.3	5977.6	1652.1	6023.9	1652.6	6105.8	1652.9	6195.5
GR	1653.2	6279.3	1653.7	6390.5	1654.8	6680.8	1656.3	6778.2	1657.7	6833.8
GR	1657.9	6896.5	1658.7	6991.2	1658.7	7074.3	1659.3	7164.3	1659	7255.5
GR	1657.7	7334	1658.5	7421.8	1659.3	7592	1659	7693.1	1659.3	7781.7
GR	1659.3	7863.9	1659.5	7949.6	1660	8048.1	1661.5	8114.7	1663.3	8171.6
GR	1667.7	8195.4	1668.5	8217						
ET		9.1	7.1				5079.85	5750	4506.4	7634.1
X1	356	53	5106.4	5145	455	560	495			
GR	1666.2	4506.4	1668.1	4541.1	1667.5	4556	1662.7	4582.6	1664.9	4593.7
GR	1665.4	4628.3	1664.6	4638.8	1664.1	4656.2	1663.5	4682.1	1661.9	4713
GR	1660.6	4744.2	1659.8	4773	1658.7	4793.4	1659	4809.3	1660.6	4825.6
GR	1660.9	4848.7	1661.4	4867.9	1660.3	4899.1	1659.3	4942.8	1657.9	4983.3
GR	1656.9	5000	1656.9	5009.9	1655.9	5106.4	1649.9	5107.4	1649.9	5144
GR	1656.5	5145	1655.6	5242.4	1655.8	5262.8	1653.7	5730.7	1654.2	5817
GR	1653.4	5847.6	1656.1	6046.7	1656.3	6117.4	1656.9	6192	1656.3	6256.3
GR	1658.2	6345.6	1658.8	6428.3	1658.8	6474.7	1659	6587	1659.8	6686.2
GR	1659.5	6751.3	1660.3	6851.7	1660	6941.7	1660	6975.8	1660	7085
GR	1660.5	7186.3	1660.5	7238.1	1660.5	7288.6	1661.3	7398.6	1661.5	7482.3
GR	1660.8	7537.4	1661.3	7582.2	1665	7634.1				
ET		9.1	7.1				6334.47	6850	5763	9742
X1	358	45	6208.6	6863.7	440	351	482			
GR	1666.8	5763	1663	5790.8	1666.3	5810.9	1665.8	5843.2	1665	5900.4
GR	1664	5985.7	1663.3	6084.2	1660.5	6158.2	1659	6208.6	1659	6313.7
GR	1658	6360.5	1656.3	6615	1655.8	6660.7	1656.1	6714.8	1656.1	6736.9
GR	1656.1	6762.5	1656.3	6863.7	1656.6	6972.2	1656.6	7038.3	1656.6	7128.5
GR	1656.8	7236.3	1657.5	7355.3	1659	7473.2	1660	7576.5	1660.5	7664.9
GR	1660.8	7778	1661	7798.7	1661	7849.8	1662	7968.6	1661.8	8090.3
GR	1662.5	8219.9	1663.5	8351.7	1665.3	8436.4	1665	8522.7	1666	8602.8
GR	1665.8	8643.1	1668.7	8673.3	1668.2	8723.3	1669	8772.2	1668.2	8782
GR	1669.5	9566	1667	9607.6	1666.8	9659.1	1666.5	9693.3	1668	9742

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NC	0.03	0.03	0.03							
ET		9.1	7.1				5210	5835	4723.3	8535.8
X1	359	59	4956.2	5706.9	60	60	60			
GR	1664.3	4723.3	1663.8	4798.7	1662.5	4899.7	1661	4956.2	1658.8	4976.9
GR	1656.6	4984.8	1654.8	4988.3	1654.8	5000	1655.1	5001.8	1657	5006.8
GR	1658.3	5026.4	1658.3	5079.5	1657.5	5172.7	1657.3	5243.6	1656.6	5370.4
GR	1654.8	5396.7	1653.3	5415.5	1656.3	5424.2	1657	5461.3	1653.8	5488.4
GR	1654.1	5508.1	1656.1	5520.2	1656.1	5559.6	1656.3	5567	1656.8	5641.9
GR	1658.8	5706.9	1658.5	5950.7	1658.5	6049.6	1658.5	6143.3	1659.3	6234.1
GR	1660.8	6305.7	1661.5	6385.9	1661.8	6407.4	1662	6468.5	1662	6563.3
GR	1662.5	6642.7	1663	6734.2	1663.8	6859.5	1664	6962.9	1664.8	7037.8
GR	1665.5	7134.6	1665.8	7187.5	1665.5	7223.4	1665.5	7336.7	1666.5	7425.6
GR	1668	7539.5	1669	7621.2	1669	7717.6	1668.7	7823.5	1668.5	7909.4
GR	1668.2	7968.3	1668.5	8056.2	1668.7	8160.8	1668.2	8258.5	1668.5	8354.2
GR	1668.7	8432.2	1668.2	8483.7	1667.2	8528.8	1665.5	8535.8		
ET		9.1	7.1				5100	5720	4540	8750.6
X1	359.1	68	4654.5	6459.6	79	79	79			
GR	1668	4370.9	1658.8	4389.8	1658.8	4432.1	1666.5	4474.1	1667	4491.8
GR	1669.7	4524	1670.7	4540	1670	4576.5	1668.2	4599.4	1664.5	4625.6
GR	1664.3	4633.1	1666.5	4654.5	1665.8	4687.8	1664.7	4722.3	1663.9	4759.4
GR	1663.7	4821.8	1662.6	4900.7	1661	5000	1659.1	5062.7	1657.8	5115.9
GR	1657	5194	1656.5	5272.8	1655.7	5358.7	1656.2	5421.3	1657	5447.6
GR	1658.1	5487.8	1658.3	5524.6	1658.2	5548.8	1658.1	5581.6	1658.9	5629.8
GR	1659.1	5665.5	1659.1	5734.3	1658.1	5828.1	1658.9	5911.2	1658.9	5982.8
GR	1658.9	6059.2	1659.4	6157.2	1660.5	6258.6	1661.3	6314.7	1661.5	6394.9
GR	1662.1	6459.6	1661.8	6527.1	1662.1	6613.9	1662.3	6692.2	1662.6	6774
GR	1662.9	6867.1	1662.9	6974.2	1663.1	7085.1	1663.7	7167.4	1663.9	7236.1
GR	1664.7	7317.5	1665.3	7402.7	1665.5	7489.9	1665.8	7584.9	1665.5	7688
GR	1665.3	7793.7	1665.3	7893.7	1665.3	7967.7	1665.3	8058.4	1665	8166.3
GR	1664.2	8266.3	1663.7	8371.1	1664.5	8478.5	1664.6	8512.4	1664.7	8561.1
GR	1664.2	8661.1	1666.1	8694.1	1668.5	8750.6				
NC	0.04	0.04	0.035							
ET		9.1	7.1				5100	5720	4603.9	6265
X1	360	59	4973.7	6262.2	58	58	58			
GR	1671.7	4603.9	1669	4626.8	1664.8	4645.3	1667.5	4666.2	1667.7	4704.4
GR	1665.3	4789	1663	4873	1661	4973.7	1659	4980.9	1657	4985.2
GR	1657	5000	1657	5006.2	1659	5011.5	1660.5	5022	1658.8	5071.1
GR	1657.8	5149.3	1657	5225.1	1656.6	5311.7	1655.8	5400.3	1653.8	5465.8
GR	1655.3	5487.1	1656.3	5527.4	1656.6	5577.1	1655.1	5599	1655.3	5617.1
GR	1657	5715.2	1658.3	5830	1658.3	5916.5	1658.8	6000.3	1658.8	6093.3
GR	1659	6179.1	1659.8	6262.2	1659.3	6313.4	1659.3	6354.7	1660	6470.4
GR	1661	6554.7	1661	6639.4	1661.8	6738.7	1662.3	6819	1663.3	6902.4
GR	1663	6960	1662.8	7053.4	1663.5	7089.8	1663.3	7199.6	1664	7324.2
GR	1664.5	7435.5	1665	7549.9	1665.3	7681.3	1666	7795.5	1666.5	7917.8

GR	1667	8032.4	1667	8058.3	1666.8	8128.8	1666.8	8264.1	1667.2	8406.1
GR	1668.2	8484.8	1668.5	8501.5	1668.5	8547.1	1671	8614.8		

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ET		9.1	7.1				5100	5720	4647.5	8398.7
X1	361	51	4956.4	6754.5	54	54	54			
GR	1664.3	4647.5	1668.2	4663.7	1668.5	4712.2	1666.3	4770.8	1663.8	4822.9
GR	1663.8	4926.8	1663.3	4956.4	1662	4974.5	1659.3	4982	1657.5	4988.2
GR	1656.3	4990.5	1656.3	5000	1656.3	5006.9	1658.3	5010.9	1659.3	5016
GR	1659.3	5042	1657.8	5084.9	1657.5	5121.4	1657.5	5237.4	1657.8	5404.6
GR	1657	5462.4	1654.8	5495.2	1657.3	5555.2	1656.8	5600.3	1657.8	5639.2
GR	1656.8	5783.7	1654.3	5788.5	1654.3	5793.5	1656.8	5799.7	1662.8	6754.5
GR	1663	6848	1662.5	6940.1	1662.8	7020.8	1663.8	7110.2	1665	7202.9
GR	1666.3	7299.9	1666.3	7309.8	1667.2	7353.7	1666.3	7466.2	1666.5	7572.3
GR	1667	7676.8	1667.7	7784.2	1667.7	7875.6	1667.2	7965.8	1667.2	8059.4
GR	1667.5	8162.2	1667.7	8202.9	1667.5	8275.5	1667.7	8332.1	1673.7	8352.5
GR	1673.2	8398.7								

ET		9.1	7.1				4950.3	5700	4690	6162
X1	362	51	4950.3	5017.8	491	759	547			
GR	1671.5	4690	1668	4692.2	1671.2	4702.5	1670.5	4735.8	1670.5	4754
GR	1668	4778.7	1665.8	4800.6	1664.3	4831.9	1664.5	4881	1666	4950.3
GR	1665.3	4974.8	1664.5	4982.7	1662.3	4986.6	1660.8	4991.2	1659	4994.6
GR	1659	5000	1659	5007.1	1661.3	5012.9	1664	5017.8	1663.8	5039.5
GR	1663	6241	1662.8	6356.7	1662.8	6450.8	1663.3	6577.8	1663.5	6693.4
GR	1664.3	6776.6	1668	6830.2	1668	6870.5	1667.7	6933.8	1667.2	7012.4
GR	1667.2	7038.1	1668.2	7093.7	1670.5	7180.2	1676.7	7230.1	1679.2	7286
GR	1680.2	7363.1	1679.7	7437.1	1680.7	7523.6	1680.4	7622	1677.9	7789.8
GR	1676.2	7837.2	1674.7	7869.9	1673	7921.2	1671.5	7963.3	1669	8010.2
GR	1668.5	8052.2	1670.5	8079.6	1672.7	8137.9	1669.2	8157.9	1669.5	8182.4
GR	1676	8222.1								

ET		9.1	7.1				5025	5630	4703.4	8100.3
X1	364	54	5046.2	5176.2	550	559	551			
GR	1678.2	4703.4	1677.9	4720.2	1678.2	4748.6	1677.5	4767.4	1679.2	4819.4
GR	1678.7	4879.8	1677.5	4917.1	1675	4937.3	1671.7	4954.7	1671.2	4966.9
GR	1669	4973	1667.2	4976.7	1665.3	4978.9	1664	4982.8	1663.8	5000
GR	1663.8	5016.9	1665.5	5023	1666.8	5028.8	1667	5046.2	1665	5056.5
GR	1664.8	5076.3	1664.5	5099.3	1661.5	5121.5	1661.8	5141.1	1664.3	5148.3
GR	1663.8	5166	1666.8	5176.2	1666.5	5201.3	1665.3	5211.2	1664	5569
GR	1666	6080	1668	6590	1671	6616.2	1670.5	6693.7	1671.5	6809.1
GR	1672.2	6915.8	1672.2	6993	1673	7075.1	1672.2	7174.7	1672.2	7250.1
GR	1673.5	7314.3	1675.2	7418.6	1674.7	7520	1675.2	7610.7	1675.2	7706.2
GR	1674.7	7794.1	1674.2	7833.8	1671.7	7857.2	1670	7891.2	1670.5	7965.6
GR	1670.5	8012.5	1671	8041.8	1676	8079	1676.5	8100.3		

ET		9.1	7.1				4950	5520	4647.7	7834.6
X1	366	35	4975.1	5056.1	440	447	460			
GR	1674	4647.7	1675	4669.6	1674	4717	1673.7	4741.7	1671	4809.7
GR	1668.2	4857.8	1667.7	4890.5	1668	4975.1	1666.5	4989.8	1665	5000
GR	1665.3	5020.6	1667.2	5027.6	1668.5	5036.2	1668.7	5056.1	1668	5079.2
GR	1667	5090.8	1668	5958	1673.5	6592	1672.7	6671.7	1672.7	6762.9
GR	1673.2	6844	1673	6922.3	1673.5	6989.3	1674	7111.8	1674.5	7214.9
GR	1675	7302.1	1675	7359.2	1674.2	7401	1673.7	7464.8	1673	7547.9
GR	1672.7	7589.3	1672.7	7630.7	1672.5	7698.8	1673.2	7774	1674	7834.6

ET		9.1	7.1				4909.72	5550	4397.9	6635
X1	368	48	4926.5	5045.2	439	432	440			
GR	1679.4	4397.9	1677.5	4427.1	1675.7	4449.2	1675.5	4494.2	1673	4543.1
GR	1672	4586.6	1672	4615	1674	4622.9	1671.5	4650	1671.5	4688.9
GR	1671	4729.8	1671.5	4762.3	1672.2	4789	1671.2	4810.9	1671.7	4877.3
GR	1671.2	4903.4	1670.5	4916.9	1670.2	4926.5	1668	4935.6	1667.5	4940.9
GR	1667.2	4964.9	1667.5	4983.2	1666.5	4990.8	1666.5	5000	1667	5012.4
GR	1669.7	5019.3	1670	5025.9	1670.2	5045.2	1668.5	5056.9	1669.2	6141
GR	1670	6227.4	1671	6328.5	1670.2	6413	1670.5	6511.7	1671.5	6618
GR	1671.5	6717.7	1671	6822.9	1671.5	6863.5	1671.7	6929.1	1671.2	7026.2
GR	1670.7	7105.1	1671.5	7187.3	1671.2	7271.5	1671.2	7302.1	1671.7	7400.1
GR	1673	7508.3	1673.2	7570.2	1674.5	7637.2				

ET		9.1	7.1				4977.2	5750	4780	7205
X1	370	50	4953.7	5026.9	425	463	479			
GR	1680.7	4481.6	1678.2	4523	1676.2	4559.6	1674.2	4593.8	1672.7	4625.5
GR	1671	4661.1	1671.2	4693.5	1671.2	4729.7	1673	4749.8	1675	4781.2
GR	1673.2	4827.2	1673	4909.1	1672.5	4935.4	1673.5	4953.7	1672.7	4974.4
GR	1670	4982.3	1668	4990.7	1668	5000	1668	5009.5	1670.2	5015.5
GR	1672.7	5026.9	1672.2	5045.6	1670.7	5055.9	1669.5	5496.4	1669.7	5868.6
GR	1669.7	6263.1	1670.5	6299.4	1672	6358.5	1670.5	6394.1	1670.5	6572.3
GR	1670.5	6635.8	1671	6723.7	1671.7	6808.1	1671.5	6868.4	1671.2	6917.2
GR	1672.5	7207.2	1671	7253.2	1671.5	7320.1	1672.5	7523.3	1672.7	7560.6
GR	1673.5	7593	1673.5	7600	1674	7696.4	1676	7727.7	1675.5	7748.5
GR	1676.7	7786	1676.7	7820.7	1675.5	7855.3	1675.7	7885.6	1676.7	7929.4

ET		9.1	7.1				4937.76	5775	4577	7150
X1	372	48	4909.3	5025.3	580	519	571			
GR	1677.7	4577	1676.5	4600.7	1675	4630	1675.5	4657.6	1674.5	4714.7
GR	1675.5	4730.8	1676.5	4754.7	1675.2	4794.3	1675.2	4829.1	1674.5	4909.3

GR	1672.7	4962.5	1672.5	4979.3	1670.7	4985.6	1669.5	4989.9	1669.5	5000
GR	1669.7	5009.8	1672.2	5016.6	1674	5025.3	1674.2	5063.1	1672.7	5107.5
GR	1672.7	5140.8	1672.5	5189.9	1672.7	6779.7	1674	6843.8	1673.5	6939.6
GR	1673	7034.3	1673.2	7116.6	1672.5	7340.3	1673	7426.1	1674.6	7498.6
GR	1673.5	7532.3	1673.5	7600	1672	7641.4	1670.7	7690	1673	7796.6
GR	1674.2	7886.9	1673.7	7908.7	1673	7921	1672.2	7946.5	1672.7	7968.3
GR	1672.5	8002.4	1673.5	8012.5	1671.2	8059.6	1673	8115.3	1676	8175.1
GR	1676.7	8193.9	1676.2	8272	1676.2	8325.3				
ET		9.1	7.1				4932.1	5600	4450.3	6850
X1	374	44	4905.5	5047.8	425	412	414			
GR	1680.4	4450.3	1679.7	4493.8	1678.7	4525.4	1680.7	4552.3	1681.2	4578.9
GR	1681.4	4609.8	1679.7	4620.7	1676.5	4641	1677	4703.7	1675.7	4760.3
GR	1675.5	4833.2	1675	4858.2	1677.2	4874	1677	4905.5	1675.2	4924.1
GR	1674.2	4949.8	1673.7	4975.1	1671.7	4981.7	1670.2	4988.1	1670.2	5000
GR	1670.2	5015.8	1673	5020.8	1675.2	5027.2	1675	5047.8	1672.7	5059.9
GR	1672.2	5110.9	1674	6982	1675.7	7271.5	1676	7304	1676	7334
GR	1676	7358	1675.5	7429.1	1674.7	7490	1674.7	7580.3	1674.5	7706.5
GR	1674.5	7772.2	1673.7	7838.9	1674	7892.7	1673.5	7929.9	1673.2	7984
GR	1673.5	8082.3	1673.2	8128.9	1672.2	8190	1676	8278		

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ET		9.1	7.1				4909.03	5375	4224	6479
X1	376	50	4874.4	5078.3	482	501	492			
GR	1683.2	4224	1682.4	4265.7	1680.9	4323.7	1680.4	4340.4	1682.7	4355.5
GR	1684.2	4374.5	1683.2	4400.2	1681.2	4422.1	1682.4	4443.5	1684.9	4468.5
GR	1686.4	4492.4	1687.7	4520.1	1687.9	4547.5	1687.7	4577.6	1686.4	4608.3
GR	1685.4	4642.8	1684.7	4681	1683.4	4721.1	1682.7	4753.7	1680.4	4820.3
GR	1679.2	4874.4	1678.4	4892.9	1676.5	4906.8	1674.5	4918.5	1673	4927.9
GR	1672.2	4935.8	1672.2	4953.7	1672	4967.1	1671.5	4974.4	1671.5	5000
GR	1671.7	5006.7	1672.7	5014.6	1673	5026.3	1673.2	5038.1	1674.7	5053.3
GR	1677.2	5068.5	1678.2	5078.3	1675	5104.7	1674.5	5159	1676.5	7070.7
GR	1677	7120.4	1677.2	7193.3	1679.7	7210	1680.7	7225.8	1680.9	7249.5
GR	1679.9	7267.8	1678.2	7290.6	1676.2	7324.4	1678.7	7341	1680.9	7359.5
ET		9.1	7.1				4964.2	5250	4919	6300
X1	378	68	4948.3	5135.5	449	453	453			
GR	1683.2	4103.4	1682.9	4134.8	1683.4	4175.8	1682.7	4225.3	1685.2	4242.4
GR	1685.7	4261.8	1686.2	4291.9	1684.9	4305	1680.7	4318.8	1680.4	4348.2
GR	1679.2	4372.9	1678.7	4398.7	1675.7	4420.7	1675.5	4439.1	1677.5	4458.1
GR	1680.4	4479.6	1683.4	4502.7	1685.7	4531.1	1686.4	4566.6	1686.2	4602.7
GR	1685.2	4633	1684.2	4646.2	1681.9	4664.2	1678.9	4680.3	1676.2	4714.3
GR	1675.5	4742	1677.2	4770.1	1677.9	4797.6	1677.7	4831.4	1678.4	4866.8
GR	1679.2	4895.8	1681.9	4918.8	1681.9	4948.3	1679.9	4958.3	1677.9	4964.6
GR	1676.2	4968.2	1674	4975.8	1671.7	4991.3	1671.7	5000	1671.7	5011.4
GR	1673	5014.6	1673	5027.2	1673	5039.1	1673	5045.8	1673	5075.9
GR	1673	5094.7	1672.5	5103.3	1673.7	5106.6	1675.7	5116.7	1677.5	5122.5
GR	1679.4	5128.2	1681.4	5135.5	1681.4	5165.6	1677.5	5178.6	1677.1	6323.7
GR	1677.6	6418.4	1678.4	6485.3	1679.1	7022	1678.9	7046.1	1677.4	7072.4
GR	1677.6	7087.6	1678.9	7107.4	1675.6	7140.3	1672.9	7158.5	1672.7	7170.8
GR	1673.2	7200	1677.6	7249.2	1681.6	7271.6				
ET		9.1	7.1				4938.98	5110	4900	5880
X1	380	49	4925.5	5110	504	528	512			
GR	1691.3	4007.4	1694.3	4029.8	1696.3	4078.5	1691.3	4106.3	1690.1	4161.9
GR	1687.1	4322.9	1683.6	4450.7	1682.1	4522.3	1681.4	4574.5	1680.1	4657.1
GR	1679.9	4732.2	1679.9	4755.8	1681.6	4775.7	1682.1	4809.1	1681.6	4831.3
GR	1680.4	4849.7	1681.1	4867.7	1683.6	4883	1684.3	4925.5	1682.1	4931.5
GR	1680.4	4937.6	1678.1	4945.7	1676.4	4951.1	1675.4	4959.3	1674.9	4975.7
GR	1674.7	4993.4	1674.2	5000	1674.2	5018.1	1674.4	5024.6	1674.4	5044.8
GR	1675.4	5053.1	1675.6	5066.6	1675.9	5087.6	1678.1	5094.2	1680.1	5099.9
GR	1681.8	5103.4	1684.1	5110	1684.1	5137.8	1678	5940	1680.6	6351.8
GR	1680.1	6413.9	1680.6	6492.7	1679.9	6542.9	1680.1	6585.8	1680.4	6671.1
GR	1681.8	6706.3	1682.3	6767.3	1681.6	6814.3	1680.9	6845.1		
ET		9.1	7.1				4925.2	5130	4873	5390
X1	382	55	4911.2	5127.1	514	509	509			
GR	1698.8	3824.3	1698.8	3878.5	1694	3905.6	1692.3	3927.9	1691.8	3958
GR	1690.8	3990.4	1690.6	4024	1690.1	4055.3	1689.8	4090.6	1688.6	4115.9
GR	1688.3	4157.6	1688.1	4204.4	1688.1	4272.4	1687.6	4352.2	1687.6	4392.4
GR	1687.8	4430.2	1687.3	4489.1	1687.3	4530.6	1689.1	4540.7	1690.1	4570.3
GR	1687.3	4593.7	1682.1	4629.5	1681.4	4660	1681.4	4715.8	1682.3	4768.2
GR	1682.8	4809	1683.1	4849.3	1682.8	4862.7	1684.6	4873.1	1684.3	4911.2
GR	1682.3	4925	1680.1	4931.4	1678.4	4934.5	1676.1	4939	1675.4	4943.1
GR	1674.2	4956.5	1674.2	4981	1674.2	5000	1674.9	5003.8	1676.1	5012.3

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GR	1674.9	5048.5	1674.9	5059	1675.9	5068.7	1677.4	5076.3	1679.1	5081.7
GR	1681.1	5087.4	1683.1	5093.2	1683.8	5098.1	1684.6	5127.1	1679.6	5262.9
GR	1680.6	5438.8	1683.8	6457.2	1683.8	6480.6	1684.1	6611.2	1684.1	6622.8
ET		9.1	7.1				4910.94	5072.8	3574.2	5260
X1	384	81	4815.4	5078.9	512	512	512			
GR	1705.2	3574.2	1707	3608.2	1707.5	3641.4	1707.2	3671.4	1703.2	3686.1
GR	1703	3697.6	1702.5	3722.8	1702.2	3793.1	1702.5	3855.5	1700.7	3952.8
GR	1696.5	4011.2	1693.8	4088.3	1693.3	4137.2	1692.5	4172	1692.5	4199.9
GR	1692.8	4240.3	1692.8	4278.8	1693.3	4333.1	1693.3	4361	1688.8	4389.7
GR	1687.1	4472	1685.8	4528.4	1684.6	4576.1	1683.3	4631.5	1683.1	4667.2

GR	1684.8	4703.9	1687.1	4737.3	1687.1	4760.6	1687.1	4786.6	1689.3	4800.2
GR	1691.1	4815.4	1690.3	4848.6	1688.8	4869.5	1688.1	4893.8	1685.8	4901.1
GR	1684.1	4908.4	1682.1	4913	1680.1	4916.9	1678.1	4925.6	1676.6	4931.7
GR	1675.6	4941.6	1675.4	4977	1675.4	4995.4	1674.4	5000	1674.4	5005.3
GR	1674.4	5016.6	1675.6	5025.2	1676.1	5041.9	1676.4	5056.2	1678.1	5061.9
GR	1680.1	5066.6	1682.1	5070.6	1684.1	5075.5	1685.3	5078.9	1685.3	5109.3
GR	1684.1	5118	1682.6	5436.1	1682.3	5575.3	1682.1	5607.6	1682.8	6200.8
GR	1683.1	6263.6	1684.8	6296.6	1685.1	6397.5	1685.6	6463.3	1685.3	6501.4
GR	1686.1	6516.6	1685.3	6534.5	1681.6	6556.5	1681.1	6578.3	1679.4	6613.1
GR	1678.6	6649.7	1679.6	6669.7	1681.1	6696	1683.1	6716	1682.8	6750
GR	1682.1	6778.1	1681.6	6812	1681.6	6856.2	1680.6	6874.3	1682.6	6898.6
GR	1685.3	6930.3								
ET		9.1	7.1				4903.59	5067.77	3411.3	6228.5
X1	386	73	4888.3	5075	535	584	535			
GR	1720.4	3411.3	1717.6	3443.1	1715.7	3472.9	1712.9	3502.1	1711.2	3527.5
GR	1708.4	3564	1707	3592.4	1705.7	3631.6	1708.4	3655.9	1709.7	3677.5
GR	1708	3709	1705.5	3750.4	1702.5	3789.8	1702.2	3838.0	1701.7	3864.3
GR	1703.7	3891	1704.2	3914.4	1703.7	3927.8	1701.5	3946.6	1702	3964.4
GR	1699.5	3995.1	1701.7	4016.7	1701.5	4048.3	1700	4069	1698.8	4104.7
GR	1697.5	4140.6	1692.8	4176.1	1691.8	4197.4	1696	4218	1703.2	4233.1
GR	1703.5	4246.9	1698.5	4264.6	1698.5	4300.1	1697.3	4339.1	1691.6	4376.9
GR	1690.3	4405.8	1689.1	4469.2	1688.8	4522.2	1689.1	4585.9	1687.1	4632.9
GR	1686.1	4675.3	1687.3	4720.7	1685.3	4759	1684.8	4807.4	1684.8	4830.9
GR	1686.6	4858.1	1687.8	4874.1	1687.8	4888.3	1685.1	4900.6	1683.1	4906.5
GR	1680.1	4913.7	1678.1	4921.7	1677.1	4925.2	1677.1	4939.6	1676.9	4966
GR	1677.1	4976.7	1677.4	4984.3	1675.1	4991	1675.1	5000	1675.4	5001.2
GR	1676.4	5020.7	1677.6	5044.1	1679.1	5052	1681.1	5059.1	1683.3	5065.2
GR	1685.1	5071.1	1687.1	5075	1687.8	5097.1	1684.6	5114.9	1684.6	5516.3
GR	1687.3	6177.7	1690.6	6202.1	1689.3	6228.5				
ET		9.1	7.1				4906.47	5080.7	4700	5300
X1	388	81	4873.9	5085.9	470	426	458			
GR	1734	3500.3	1732.3	3525.2	1730.3	3547.7	1726.6	3584.9	1725.1	3613
GR	1722.1	3640	1717.4	3665.2	1715.2	3670.7	1718.6	3684	1720.6	3716.1
GR	1720.4	3745.8	1716.9	3771.9	1716.4	3794.1	1715.9	3810.5	1712.9	3830.9
GR	1711.4	3837.6	1712.7	3864.8	1711.9	3890.7	1709.7	3913.5	1708	3925.9
GR	1708	3951	1706.5	3969.9	1707.5	3994.7	1705.2	4011.9	1704.2	4017.6
GR	1708.9	4053.6	1702.7	4090	1700.2	4120	1704.7	4140.1	1703.2	4183.2
GR	1702	4222.2	1701.5	4262.2	1699.3	4276.8	1704	4311.8	1692.3	4349.7
GR	1691.8	4391.4	1692.5	4445.4	1692	4489.2	1689.1	4596	1689.8	4635.6
GR	1688.3	4683.5	1687.6	4715	1687.6	4741	1688.6	4765.6	1688.8	4826
GR	1688.3	4873.9	1686.8	4894.7	1686.1	4904.4	1684.1	4908.4	1682.3	4911.8

GR	1680.4	4916.5	1678.1	4919.1	1678.1	4925.9	1677.6	4930.6	1676.1	4937.3
GR	1676.1	4953	1676.6	4959.6	1676.9	4978	1676.4	4986.8	1675.6	4991
GR	1675.6	5000	1676.9	5004.8	1676.9	5016	1677.1	5033	1676.6	5045.3
GR	1677.1	5055.4	1677.6	5059.9	1679.9	5067.2	1682.1	5074.2	1684.1	5079.3
GR	1686.1	5082.2	1687.1	5085.9	1687.1	5107	1687.6	5653.1	1687.6	5700.6
GR	1688.1	5746	1687.8	5776.3	1687.6	5800.1	1693.3	5816.1	1693.3	5835
GR	1686.1	5857								
ET		9.1	7.1				4906.21	5079.26	4700	5300
X1	390	79	4874.4	5144.2	534	449	532			
GR	1722.6	3490.2	1720.4	3537.9	1719.4	3592.6	1718.4	3635.1	1716.2	3666.7
GR	1708.9	3696.3	1708	3742.4	1707	3787.9	1709.7	3822.9	1709.9	3867.8
GR	1708.9	3918.3	1708.9	3938	1705.7	3952.5	1707.2	3981.4	1707.5	4014.6
GR	1707.5	4040.7	1706	4065	1704.2	4094.2	1700.7	4127.1	1695.6	4164.6
GR	1694.6	4181.4	1696.3	4191.8	1694	4209.3	1691.6	4222.1	1694.3	4239.2
GR	1692	4251.5	1691.8	4276.2	1695.3	4285.7	1696.5	4315.2	1693.3	4336
GR	1691.1	4392.3	1691.1	4457.5	1689.8	4510.5	1687.6	4552	1687.8	4615.1
GR	1687.1	4681.3	1687.6	4720.4	1690.8	4763.8	1690.8	4796.6	1690.3	4836.8
GR	1690.3	4874.4	1688.8	4886.5	1688.1	4899.2	1686.1	4905.2	1683.3	4912.2
GR	1680.9	4919.6	1678.9	4922.7	1678.1	4926.7	1677.6	4940.4	1677.6	4950
GR	1677.9	4969.5	1677.4	4984.2	1676.4	4991.3	1675.9	5000	1675.9	5004.7
GR	1677.1	5012	1677.6	5035.4	1678.9	5052.1	1679.1	5062.1	1679.1	5070.3
GR	1682.1	5072.1	1683.3	5075.6	1685.3	5078.4	1687.1	5082.3	1689.1	5086.1
GR	1689.1	5102.5	1689.8	5116.5	1691.1	5144.2	1688.6	5369.7	1688.8	5445.9
GR	1686.8	5576.8	1686.3	5602.6	1687.3	5652.6	1695.3	5664.3	1695.5	5679.3
GR	1688.8	5703.2	1690.6	5733.1	1691.3	5755.3	1691.3	5771.4		
ET		9.1	7.1				4916.13	5085.4	4800	5200
X1	392	69	4762.4	5141.4	590	531	577			
GR	1692.5	3835.9	1692	3887.8	1691.6	3951.5	1691.6	4018.1	1691.1	4050.1
GR	1694.8	4076.5	1695.5	4104.1	1703.5	4135.1	1696	4160.9	1694.8	4212.7
GR	1694.8	4269.9	1695	4317	1691.1	4361.1	1692	4403.7	1692.8	4444.3
GR	1691.3	4481.5	1690.1	4510.7	1690.3	4543.2	1691.1	4590.8	1691.1	4632.5
GR	1695.8	4646.6	1697	4679.4	1695.8	4707.2	1696	4762.4	1694.8	4816.3
GR	1694	4844.6	1692.3	4877.6	1689.3	4891.7	1689.3	4904.7	1687.1	4914
GR	1685.1	4920.4	1683.1	4925.5	1681.1	4930.9	1679.4	4936.8	1678.4	4946
GR	1677.6	4955.4	1677.9	4965.8	1679.1	4970.1	1678.6	4985.5	1676.9	4992.6
GR	1676.6	4994.8	1676.6	5000	1676.9	5005.3	1678.6	5009.2	1678.9	5017.1
GR	1677.4	5025.1	1677.1	5030.4	1678.1	5056.3	1678.9	5065.7	1679.4	5068.8
GR	1681.4	5071.1	1683.1	5077.7	1685.1	5081.8	1687.1	5087.2	1689.1	5092.8
GR	1689.1	5107.8	1691.1	5117.1	1692.5	5141.4	1692.5	5163.9	1692.3	5190.4
GR	1692	5203.9	1689.3	5223.7	1689.6	5269.6	1686.8	5403.3	1687.8	5476.9
GR	1696.5	5494.8	1696	5510.8	1691.1	5528.7	1691.3	5555.2		
ET		9.1	7.1				4871.53	5042.45	4800	5200
X1	396	56	4743.5	5127.8	448	450	448			

GR	1711.2	3827.5	1694.3	3876.8	1693.8	3911.3	1697	3928	1695.3	3991.7
GR	1693.8	4061.6	1692.8	4123.7	1691.1	4206.2	1691.1	4281.1	1691.1	4347.7
GR	1689.8	4380.7	1695.3	4743.5	1693.8	4768.2	1692.3	4837.9	1690.8	4848.9
GR	1691.1	4859.5	1689.1	4866.7	1687.3	4870.8	1685.3	4876.5	1683.3	4882.4
GR	1681.4	4888.1	1681.1	4893.5	1680.1	4901.6	1680.1	4911.3	1678.1	4922
GR	1677.9	4929.1	1679.6	4934.1	1680.1	4940.5	1679.6	4951.8	1678.6	4957
GR	1677.4	4959.5	1677.9	4968	1679.1	4978.8	1678.9	4987.2	1677.9	5000
GR	1679.6	5012.7	1681.4	5022.6	1683.1	5034.5	1684.1	5036	1686.1	5040

1

GR	1688.1	5045.2	1689.1	5049.8	1689.3	5064.7	1692	5075.9	1692.8	5099.6
GR	1692.8	5112.8	1694.3	5127.8	1688.8	5146.4	1689.1	5169	1689.1	5314.6
GR	1688.6	5342.3	1689.3	5392.6	1697.3	5412	1697.3	5426.1	1692.8	5442.7
GR	1692.3	5468.6								
ET		9.1	7.1				4913.56	5079.42	4800	5200
X1	396	56	4901.7	5137.7	520	498	507			
GR	1695	4099.9	1693.8	4172.5	1693.8	4238.5	1693	4314.2	1691.8	4370.8
GR	1688.6	4390.9	1690.8	4403.6	1690.6	4427.4	1692	4445.7	1692.5	4477.4
GR	1692.8	4507	1693	4569.9	1692.5	4643.5	1695.8	4668.7	1695	4688.7
GR	1696.3	4703	1695.3	4748.5	1694.3	4782.2	1693.3	4816	1692	4869
GR	1691.1	4901.7	1689.3	4909.3	1687.3	4915.2	1685.3	4920	1683.3	4924.7
GR	1681.6	4925.5	1681.6	4931.9	1680.6	4940.7	1678.9	4949.3	1678.4	4956.7
GR	1681.6	4968.2	1681.4	4974	1680.4	4980	1678.4	4990.9	1678.4	5000
GR	1680.1	5005.4	1680.1	5015.5	1680.6	5036.5	1680.1	5057.5	1682.6	5065.7
GR	1684.1	5069.9	1686.1	5075.2	1688.1	5080	1690.1	5085.9	1692.3	5109.2
GR	1692.8	5137.7	1692.8	5151.4	1690.6	5371.3	1690.8	5420	1690.1	5445.1
GR	1699.8	5464.9	1699.8	5478.4	1691.1	5498	1691.1	5515	1688.8	5524
GR	1688.8	5540.6								
NC	0.03	0.03	0.015	0.3	0.5					
ET		9.1	7.1				4927	5138.9	4927	5138.9
X1	398	29	4942	5122	305	371	362			
GR	1689.4	4460.9	1689.1	4492.5	1688.9	4541.8	1690.6	4574.9	1691.9	4594.8
GR	1691.9	4621.4	1692.4	4644.6	1692.1	4672.7	1690.9	4691.9	1689.1	4742.3
GR	1688.6	4795.1	1688.6	4845.8	1688.4	4892.4	1688.6	4922.8	1686.55	4942
GR	1676.3	4972	1676.3	5092	1686.94	5122	1688.1	5141.5	1689.4	5148.7
GR	1690.1	5158.2	1690.9	5173.2	1690.9	5190.7	1690.4	5214.5	1690.9	5235.5
GR	1691.6	5261.3	1691.4	5294.6	1692	5340	1696	5516		

Downstream Vegas Valley Rd.
Special Bridge, Bridge elevations taken from field survey conducted by
Nolte & Assoc., 12-2-97

Downstream Vegas Valley Rd.
Special Bridge, Bridge elevations taken from field survey conducted by
Nolte & Assoc., 12-2-97

X1	400	26	1377	1501.5	120	232	170			
X3	10									
GR	1701.1	0	1698.8	107.6	1696.9	199.2	1694.4	294.5	1692.6	399.5
GR	1690.2	507.9	1689.4	598.4	1689.2	722.4	1689.4	817.9	1689.6	950.5
GR	1689.6	1062.2	1689.6	1160.4	1689.1	1261.9	1690.674	1372.2	1691.5	1377
GR	1676.3	1377.1	1676.3	1501.4	1691.5	1501.5	1690.1	1510.3	1690.6	1628.8
GR	1690.6	1628.9	1691.1	1718.1	1691.9	1795.3	1692.5	1917.5	1694	2112.9
GR	1696	2204.5								
SB	1.25	1.5	2.6	125	125	4.5	1224	0	1676.7	1676.3
X1	400.1	26	1377	1501.5	88.7	88.7	88.7			
X2			1	1687.1	1691.5			2		
X3	10									
GR	1701.1	0	1698.8	107.6	1696.9	199.2	1694.4	294.5	1692.6	399.5
GR	1690.2	507.9	1689.4	598.4	1689.2	722.4	1689.4	817.9	1689.6	950.5
GR	1689.6	1062.2	1689.6	1160.4	1689.1	1261.9	1690.674	1372.2	1691.5	1377
GR	1676.7	1377.1	1676.8	1501.4	1691.5	1501.5	1690.1	1510.3	1690.6	1628.8
GR	1690.6	1628.9	1691.1	1718.1	1691.9	1795.3	1692.5	1917.5	1694	2112.9

1

GR	1696	2204.5								
NC				0.1	0.3					
ET		9.1	7.1				4946.1	5149.77	4700	5300

Rt. bank survey data *from Links* Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

X1	401	15	4954	5135	260	150	218			
GR	1696	4549.8	1689.9	4882.3	1689.6	4930.1	1689.4	4938.8	1688.3	4954
GR	1678.2	4984	1678.43	5105	1688.3	5135	1688.9	5150.5	1689.9	5169.9
GR	1690.6	5194.3	1692.4	5233	1702.65	5259.8	1697.65	5289.8	1696.65	5434.4
ET		9.1	7.1				4956.22	5123.78	4700	5300

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

X1	402	33	4949.5	5130.5	97	55	83			
GR	1698.3	4363.5	1697.8	4395	1700.3	4407.9	1700.5	4420.2	1696.3	4448.3
GR	1696.3	4524.1	1700.5	4548	1700.5	4560.1	1697.3	4570.7	1697.5	4621.2
GR	1695.3	4641.4	1695.6	4667.7	1696.1	4693.1	1696.6	4724.4	1694.8	4736.9
GR	1692.8	4756.7	1692.8	4799.3	1692.1	4838	1691.6	4872.9	1691.3	4921.1

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 GR   1690.8      4942.6      1690.9      4949.5      1680.9      4979.5      1680.9      5100.5      1690.9      5130.5
 GR   1691.6       5146       1693.8       5156       1695.6      5173.7      1696.3       5192       1705.7       5200
 GR   1702.7       5230       1697.7       5255       1696.7      5349.4

 ET                 9.1         7.1                                          4965.56     5124.44      4800        5200
....  Rt. bank survey data from Links Golf Course Grading Plan
      Plans by CELLA BARR ASSOC., 03-98
            Rt. bank survey data from Links Golf Course Grading Plan
            Plans by CELLA BARR ASSOC., 03-98
 X1       404          37        4954.5      5135.5        272         226         252
 GR   1695.8       4261.7      1695.6       4281       1699.3      4312.7      1699.3      4360.7      1698.3      4410.3
 GR   1698.3       4418.5      1696.6      4444.8      1695.6        4490      1694.8      4532.5      1694.3      4553.8
 GR   1695.6       4595.6      1695.6      4670.5      1696.8      4692.9      1696.6      4731.1      1693.8      4758.5
 GR   1693.6       4805.3      1693.3      4856.6      1694.1      4885.6      1693.6      4920.8      1692.3      4930.7
 GR   1692.2       4954.5      1682.2      4984.5      1682.2      5105.5      1692.2      5135.5      1693.1      5157.7
 GR   1695.8       5173.6        1700        5165      1705.7        5202      1705.7        5215      1702.7        5239
 GR   1697.7         5268      1697.7        5385      1697.7        5412      1705.2        5426      1702.7        5440
 GR   1697.7         5465      1693.7      5487.3

 ET                 9.1         7.1                                          4944.15     5091.79      4500        5200
      Rt. bank survey data from Links Golf Course Grading Plan
      Plans by CELLA BARR ASSOC., 03-98
            Rt. bank survey data from Links Golf Course Grading Plan
            Plans by CELLA BARR ASSOC., 03-98
 X1       406          47        4924.2      5105.8        482         281         370
 GR   1698.5       4363.9      1698.5       4419       1699.8      4422.6      1699.3      4461.2      1698.8      4561.1
 GR   1696.6         4627      1696.6      4726.1      1696.8      4798.6      1699.8      4805.8      1698.3      4819.2
 GR   1696.3       4856.1      1695.8      4884.3      1695.1      4898.1      1693.6      4924.2      1691.3      4935.4
 GR   1689.3       4941.9      1686.9      4948.8      1685.4      4955.4      1683.9      4961.1      1683.9      4973.6
 GR   1683.9         5000      1683.9      5016.3      1683.9      5043.3      1683.9      5063.1      1683.9        5077
 GR   1686.1       5084.7      1688.1      5090.6      1690.1      5096.3      1692.1      5100.6      1693.3      5105.8

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 GR     1698         5155      1706.7         5182      1706.7         5200      1700         5242      1699         5256
 GR     1699         5400      1702.7         5432      1706.5         5450      1702.7       5467      1700         5485
 GR     1696         5502        1695         5675      1702.7         5705      1707.7       5720      1707.7       5735
 GR     1698         5765      1696.1       5778.2

 ET                 9.1         7.1                                          4912.83     5060.94      4700        5200
      Rt. bank survey data from Links Golf Course Grading Plan
      Plans by CELLA BARR ASSOC., 03-98
            Rt. bank survey data from Links Golf Course Grading Plan
            Plans by CELLA BARR ASSOC., 03-98
 X1       408          27        4896.5        5077         334         284         303
 GR   1697.1       4351.8      1697.3       4445.8      1697.3      4553.3        1697       4626.5      1696.5        4800
 GR   1694.6       4896.5      1684.6       4926.5      1684.6      5047.5      1694.6         5077      1694.8      5101.5
 GR   1696.8       5123.2        1700         5140      1707.7        5160      1709.2         5176      1707.7        5180
 GR   1697.7         5202      1697.7         5355      1707.7        5385      1711.7         5396      1707.7        5415
 GR   1697.7         5465      1698.7         5550      1702.7        5715      1709.2         5740      1707.7        5750
 GR   1697.7         5775      1694.5       5792.9

 ET                 9.1         7.1                                          4875.85     5024.15      4700        5200
      Rt. bank survey data from Links Golf Course Grading Plan
      Plans by CELLA BARR ASSOC., 03-98
            Rt. bank survey data from Links Golf Course Grading Plan
            Plans by CELLA BARR ASSOC., 03-98
 X1       410          32        4859.5      5040.5        351         291         318
 GR   1698.5       4431.2        1699       4525.5      1698.8        4630      1698.8      4735.2      1698.8      4774.2
 GR   1696.8       4810.7      1696.1       4859.5      1686.1      4889.5      1686.1      5010.5      1696.1      5040.5
 GR   1696.3       5076.5      1696.6       5098.2      1697.8      5111.1        1701         5120      1702.7        5130
 GR   1707.7         5142      1710.7         5155      1707.7        5165      1702.7         5176      1697.7        5190
 GR   1697.7         5350      1702.7         5371      1707.7        5395      1702.7         5431      1697.7        5455
 GR   1692.7         5580      1692.7         5627      1697.7        5654      1707.7         5720      1707.7        5746
 GR   1697.7         5770      1696.5       5799.9

 ET                 9.1         7.1                                          4859.5      5060.5       4795.5      5801.3
      Rt. bank survey data from Links Golf Course Grading Plan
      Plans by CELLA BARR ASSOC., 03-98
            Rt. bank survey data from Links Golf Course Grading Plan
            Plans by CELLA BARR ASSOC., 03-98
 X1       412          31        4859.5      5060.5        215         218         215
 GR   1691.6       4343.1      1691.6       4362       1691.6      4381.7      1691.6      4419.9      1691.6      4437.1
 GR   1691.6       4464.6      1691.1       4480.8      1690.8      4500.5      1690.1      4522.2      1689.8      4535.7
 GR   1689.6       4566.8      1688.6         4579      1692.3      4589.6      1694.1      4602.4      1695.8      4614.7
 GR     1698       4633.5        1699       4653.7      1699.5      4680.9      1699.5      4706.3      1699.8      4728.9
 GR   1700.5       4754.8      1702.3       4774.9      1703.5      4795.5      1700.5      4827.4      1698.3      4841.5
 GR   1698.3       4859.5      1686.6       4889.5      1686.6        5000      1686.6      5030.5      1697.3      5060.5
 GR   1697.3       5077.9        1699         5084.6    1702.7        5100      1707.7        5110      1712.2        5127
 GR   1707.7         5145      1702.7         5160      1698.7        5170      1696.7        5315      1697.7        5350
 GR   1702.7         5382      1707.7         5417      1702.7        5440      1692.7        5542      1697.7        5580
 GR   1702.7         5615      1707.7         5680      1710.7        5720      1707.7        5745      1697.7        5766
 GR   1697.5       5801.3

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 NC     0.04         0.04       0.035
 ET                 9.1         7.1                                          4939.5      5063.1       4414.2      5158
      Rt. bank survey data from Links Golf Course Grading Plan
      Plans by CELLA BARR ASSOC., 03-98
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Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

X1	414	57	4939.5	5063.1	492	500	497			
GR	1702.8	4414.2	1702.5	4510.2	1702	4601	1702	4676	1702.5	4750.1
GR	1702.8	4829.4	1702.3	4865.9	1705.7	4875.3	1702.3	4892.9	1701.5	4939.5
GR	1699.8	4944.8	1697.5	4949	1695.1	4954	1693.3	4957.3	1691.1	4959.8
GR	1690.6	4968.2	1689.6	4984	1688.4	4991.1	1688.4	5000	1688.4	5009.7
GR	1690.8	5020.3	1692.1	5033.3	1693.3	5041.3	1695.6	5053.7	1697.3	5058.1
GR	1699.3	5060.9	1701	5062	1703.3	5063.1	1704.2	5082.9	1704	5099.6
GR	1706	5132	1710	5140	1712.7	5151	1715.7	5158	1715.7	5170
GR	1712.7	5180	1707.7	5195	1702.7	5210	1697.7	5280	1691.7	5300
GR	1691.7	5332	1692.7	5340	1697.7	5362	1707.7	5395	1708.7	5400
GR	1707.7	5405	1702.7	5422	1698.7	5435	1697.7	5512	1697.7	5570
GR	1702.7	5625	1707.7	5695	1712.7	5805	1712.7	5825	1707.7	5835
GR	1700.7	5847	1700.7	5900.4						
ET		9.1	7.1				4389.3	5162	4389.3	5162

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

X1	416	48	4948.9	5056.3	351	356	353			
GR	1703	4389.3	1702.8	4471	1702.8	4561.4	1702.8	4651.3	1702.5	4743.5
GR	1703.5	4832.5	1704.7	4884	1705.5	4896.9	1703.5	4921.8	1703.3	4948.9
GR	1701.3	4952.8	1699	4955.3	1697.1	4957.4	1695.1	4961	1693.1	4964.5
GR	1693.1	4970.7	1693.1	4979	1693.1	4983.8	1692.1	4987	1689.8	4994.8
GR	1689.8	5000	1689.8	5007.8	1690.6	5018.1	1691.3	5034.4	1693.3	5039.3
GR	1695.1	5043.6	1697.1	5046.8	1699	5050.3	1701	5053	1703	5056.3
GR	1703	5093.5	1709.5	5111.5	1706.2	5129.4	1706	5135	1710	5145
GR	1715.7	5162	1712.7	5175	1702.7	5215	1697.7	5268	1692.7	5290
GR	1692.7	5600	1697.7	5665	1707.7	5723	1717.7	5785	1717.7	5785
GR	1717.7	5875	1702.7	5890	1701.7	5944.4				
ET		9.1	7.1				4948.7	5057.3	4234.5	5846.2

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOCIATES, 03/98

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOCIATES, 03/98

X1	418	46	4948.7	5057.3	278	272	274			
GR	1704.2	4234.5	1704	4316.2	1704.7	4351	1706.2	4378	1705.9	4398.4
GR	1705.4	4417.6	1704	4450.3	1704	4518	1703.7	4549.4	1706.9	4582.8
GR	1704	4598.3	1704	4663.3	1705.2	4916.9	1705.2	4948.7	1704	4953.3
GR	1702	4955.1	1699.5	4959.7	1697.8	4961.7	1695.8	4963.5	1693.8	4964
GR	1693.3	4964.8	1693.6	4975.1	1693.3	4978.4	1691.8	4986.3	1691.8	4992
GR	1691.8	5000	1692.3	5009.6	1692.6	5013.8	1693.1	5023.4	1694.8	5028.7
GR	1696.8	5034	1698.5	5038.6	1701.3	5040.4	1703	5043.2	1704	5057.3
GR	1703.8	5075.3	1703.5	5084.4	1707.7	5099.4	1703.8	5113.9	1706	5147
GR	1710	5155	1716.2	5182	1716.7	5365	1716.7	5605	1714.7	5750
GR	1702.4	5846.2								

ET		9.1	7.1				4939	5058.1	4399.9	5476
X1	420	53	4939	5058.1	547	590	570			
GR	1706.9	4399.9	1706.7	4427.1	1706.9	4465.8	1708.4	4492.1	1708.7	4570.3
GR	1707.7	4645.4	1706.4	4677.9	1706.2	4721.6	1707.9	4746.7	1707.9	4826.9
GR	1705.2	4855.7	1705.2	4892.6	1705.9	4939	1702.7	4948.8	1699.5	4956.6
GR	1697.2	4963.7	1696.5	4970.1	1696.5	4978.3	1696.3	4988.4	1694	5000
GR	1694	5004.2	1694	5023	1698.2	5033.3	1703.2	5042.6	1706.2	5048.2
GR	1707.7	5058.1	1707.7	5073.8	1708.2	5099.6	1707.9	5129.3	1708.9	5168.9
GR	1708.4	5198.4	1708.7	5239.6	1708.7	5270.7	1709.2	5349.2	1709.4	5417
GR	1711.2	5476	1708.9	5540.8	1708.4	5566.7	1707.7	5579.4	1707.2	5585.1
GR	1707.2	5777.7	1710.2	5802.8	1711.4	5827.4	1712.6	5865.7	1710.7	5888.5
GR	1709.7	5902.9	1708.9	5910.9	1707.7	5922.9	1706.9	5936.7	1706.7	5965
GR	1703.7	5975.4	1705.2	5985.2	1706.2	6009.9				

Confluence with Flamingo Wash

Confluence with Flamingo Wash

X1	422	65	4966.9	5126.4	290	330	319			
GR	1709.4	4283.7	1708.2	4303.5	1707.9	4347	1709.7	4375.1	1709.7	4443.8
GR	1709.7	4508.5	1709.2	4537.9	1708.4	4563.8	1707.7	4604.3	1709.2	4633.6
GR	1709.4	4707.2	1710.9	4741	1712.4	4765.4	1712.4	4819	1712.4	4867.7
GR	1711.4	4879.2	1709.4	4887.5	1708.7	4893.7	1707.7	4903.2	1706.4	4932.2
GR	1705.7	4939.5	1704.7	4945.8	1703.5	4952.3	1702.5	4960.2	1701.2	4966.9
GR	1700.2	4972.8	1700	4979.9	1700	4987.5	1698	4988.6	1697.2	4988.9
GR	1696.3	4989.8	1695	4990.9	1694.3	4991.5	1694.3	4995.6	1694.3	5000
GR	1694.3	5003.7	1695.3	5006.7	1696.8	5009.4	1697.5	5015.2	1700.2	5021
GR	1702.7	5024.4	1704.9	5028.3	1706.2	5034.3	1708.4	5046.7	1711.2	5056.7
GR	1711.6	5068.3	1710.9	5098.6	1709.4	5105.8	1710.4	5116.4	1709.4	5126.4
GR	1708.9	5148.8	1710.9	5172.5	1714.1	5189.4	1715.9	5202.2	1715.1	5218.9
GR	1713.9	5240.3	1713.1	5257.4	1711.9	5270.8	1712.6	5291.1	1711.9	5302.4
GR	1712.4	5316.1	1710.9	5328.3	1711.6	5375.9	1710.2	5427.4	1709.4	5490.1
JT	2	5504.38	5993							
ET		9.1	7.1				4945.14	5222.06	4687.9	5432.3
X1	424	63	4951.8	5065.6	439	456	458			
GR	1711.4	4176.6	1711.2	4238.3	1709.9	4258	1709.9	4300.9	1711.2	4323.2
GR	1711.6	4391.8	1710.7	4422.4	1710.7	4485.3	1708.7	4509	1708.9	4555.9
GR	1710.9	4574.9	1710.4	4653.4	1712.1	4675	1713.6	4687.9	1711.6	4707.2
GR	1711.4	4726.9	1711.2	4775.4	1711.4	4873.6	1711.4	4916.2	1710.7	4939.2
GR	1709.7	4946.6	1708.4	4951.8	1706.2	4956	1704.4	4960.2	1703.5	4964.4

GR	1703	4969.4	1703	4980.8	1703	4992.8	1702.2	5000	1702.5	5004.9
GR	1702.5	5014.5	1703	5022.5	1703.2	5030.7	1704.2	5037.8	1705.4	5043.6
GR	1706.2	5054.1	1706.9	5065.6	1706.9	5074.3	1706.4	5109.8	1706.2	5122.6
GR	1705.4	5130	1703.2	5137.1	1701.5	5142	1700.2	5146.9	1699.2	5149.9
GR	1699	5154	1699	5158.6	1699.7	5164.3	1701.2	5169.7	1703	5176.1
GR	1704.9	5183.4	1706.4	5190.7	1707.9	5196.5	1709.2	5208.4	1710.2	5228
GR	1710.4	5280.6	1711.2	5349.2	1713.1	5401.9	1714	5432.3	1712.4	5454.2
GR	1710.9	5481.9	1709.7	5505.9	1710.4	5572.9				

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ET		9.1	7.1				4942.09	5176.93	4704.3	5180
X1	426	71	4954.1	5058.8	247	287	268			
GR	1712.4	4239	1710.9	4266.3	1710.7	4310.5	1711.9	4326.7	1711.9	4408.5
GR	1711.4	4414.2	1711.6	4492.1	1709.9	4515	1709.9	4559.5	1711.2	4570.9
GR	1710.9	4654.2	1712.6	4679.4	1714.4	4693.6	1714.6	4704.3	1712.9	4719
GR	1712.4	4762.4	1712.1	4788.8	1711.9	4833.1	1711.9	4866.6	1712.6	4884.5
GR	1712.9	4911.1	1712.9	4930.2	1711.4	4938.1	1709.7	4946	1707.9	4954.1
GR	1706.2	4966.4	1705.4	4975.3	1705.1	4982.6	1705.2	4995.1	1704.9	5000
GR	1705.2	5011.1	1705.1	5023.4	1705.1	5034.4	1706.4	5044.5	1708.2	5051.8
GR	1708.9	5058.8	1709.4	5079.6	1709.7	5102.9	1709.9	5139.7	1710.7	5186.1
GR	1710.2	5199.6	1708.2	5210.5	1705.9	5221.4	1703.7	5229.7	1701.7	5237.9
GR	1701.7	5252.1	1701.5	5276.7	1701.5	5289.3	1703.7	5301.4	1705.9	5312.2
GR	1708.4	5323.9	1711.2	5334.2	1711.6	5343.6	1713.4	5351.2	1713.4	5367.1
GR	1712.4	5377.5	1711.9	5389.9	1711.6	5408.8	1712.1	5446.9	1712.4	5493.5
GR	1712.9	5516.7	1714.1	5528.3	1714.9	5540.1	1714.6	5548.5	1714.1	5562.6
GR	1713.9	5574.9	1712.9	5584.5	1712.4	5604.2	1712.4	5636.1	1712.1	5664.4
GR	1711.6	5695.9								

ET		9.1	7.1				4911.61	5142.98	4900	5200
X1	428	90	4903.8	5187.1	433	522	485			
X3	10									
GR	1708.7	4020.2	1708.7	4044.8	1710.7	4061.8	1710.4	4092.1	1711.2	4105.5
GR	1711.4	4135.6	1712.2	4175.7	1711.9	4211.6	1710.4	4242.5	1710.2	4289
GR	1709.7	4308	1712.2	4319.1	1712.2	4369.1	1713.2	4412.8	1712.2	4434.8
GR	1711.9	4450.9	1712.2	4481.3	1712.2	4533.9	1712.2	4589.3	1712.1	4624.6
GR	1713.4	4637.6	1713.4	4652.7	1710.9	4667.7	1710.9	4737.8	1712.2	4761.6
GR	1712.9	4806.7	1712.9	4869.8	1714.7	4876.1	1715.2	4903.8	1713.2	4914.5
GR	1712.2	4924.8	1709.9	4936.5	1709.5	4950	1708.5	4975.8	1708.2	4985.3
GR	1708.1	4992.7	1707	5000	1707.2	5010	1708.1	5020.3	1708.3	5037.8
GR	1708.5	5051.2	1708.5	5063.3	1708.2	5071.9	1709.2	5080.1	1709.7	5094.7
GR	1710.4	5107.1	1711.2	5122.5	1712.2	5134.3	1714.4	5146.7	1716.2	5187.1
GR	1716.2	5279.7	1715.4	5342.5	1716.2	5374.5	1716.2	5391.1	1713.7	5409
GR	1713.7	5428.5	1714.2	5440.2	1712.4	5449.9	1714.4	5463	1717.9	5492.7
GR	1716.7	5506.3	1716.2	5556.1	1714.2	5575.5	1712.7	5584.5	1710.4	5599.4
GR	1707.2	5622.3	1706	5632.1	1705	5640.8	1704.7	5647.7	1704.7	5660.6
GR	1705.2	5672.6	1705.7	5693.6	1705.7	5702.6	1708.2	5712.8	1709.9	5726.7
GR	1712.1	5737.1	1712.9	5748.9	1713.7	5760.3	1713.9	5789.2	1714.2	5823.1
GR	1714.2	5849.5	1716.1	5887.6	1716.2	5913	1716.7	5945.2	1717.9	5970.8
GR	1719.1	5992.7	1719.4	6010.2	1717.1	6023.3	1716.9	6067.7	1716.2	6083.3

ET		9.1	7.1				4899.9	5150	4669.1	5150
X1	430	71	4899.9	5105.3	140	244	182			
X3	10									
GR	1710.7	4100.4	1710.4	4108.5	1711.9	4130.3	1712.2	4145.3	1712.2	4189.4
GR	1712.2	4254.4	1710.7	4278.3	1711.2	4314	1709.9	4345.8	1712.7	4372.2
GR	1712.9	4421.4	1712.7	4463.4	1713.2	4508.5	1712.2	4528.4	1712.4	4562
GR	1714.2	4585.5	1714.2	4626.7	1714.4	4669.1	1713.4	4686	1712.2	4701.1
GR	1712.7	4734.7	1712.4	4761.4	1713.9	4780.1	1713.4	4821.3	1712.9	4859.4
GR	1713.9	4899.9	1713.2	4907.1	1712.2	4913.2	1710.7	4920.4	1710.4	4936.9
GR	1710.4	4951	1710.4	4965.6	1709.9	4976.7	1709.7	4984.7	1709.2	4992.4
GR	1708.5	4997.8	1708	5000	1708	5005.8	1709.5	5011.5	1709.7	5017.1
GR	1709.9	5028.4	1710.4	5038.9	1710.4	5050.5	1710.9	5063.5	1710.7	5077.4
GR	1711.7	5086.2	1713.7	5095.9	1714.4	5105.3	1714.9	5127.7	1715.2	5148.8

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GR	1715.7	5164.4	1715.7	5176.5	1714.4	5199.6	1713.7	5214.5	1714.2	5240.2
GR	1714.4	5270	1714.4	5306.1	1715.2	5351.4	1716.2	5404.3	1716.2	5459.6
GR	1717.1	5502	1717.4	5544.6	1717.6	5586.2	1718.6	5632.4	1718.1	5683.5
GR	1717.9	5719.2	1717.9	5748.4	1716.2	5778.2	1715.4	5795.4	1715.4	5845.2
GR	1716.9	5879.1								

NC	0.03	0.03	0.025	0.3	0.5					
ET		9.1	7.1				4758	5155.1	4758	5208
X1	432	48	4916.4	5090.9	538	580	565			
X3	10									
GR	1709.2	3973.8	1710.9	3982.8	1710.4	4018.5	1710.7	4050.7	1709.5	4082
GR	1710.2	4146	1709.9	4232.1	1709	4245.8	1708.5	4311.7	1709	4399.4
GR	1712.2	4474	1711.9	4509.1	1712.2	4558.9	1713.9	4622.2	1714.7	4672.6
GR	1714.2	4712.5	1716.2	4729.1	1716.2	4740.1	1714.2	4754.3	1714.2	4803
GR	1714.2	4874.7	1714.2	4916.4	1713.4	4927.5	1712.5	4935.9	1710.7	4990.5
GR	1709	4995.9	1709	5000	1709	5003.1	1712.1	5053.3	1713.9	5090.9
GR	1714.4	5110.4	1714.7	5124.6	1714.7	5140.7	1715.4	5152.3	1717.9	5172
GR	1718.4	5185	1718.6	5208.4	1717.9	5286.6	1716.2	5310.9	1715.7	5356
GR	1716.4	5375	1718.1	5407.5	1718.4	5458.8	1717.9	5522.1	1717.9	5556.8
GR	1715.2	5591.5	1714.9	5628.3	1716.9	5657.2				

ET		9.1	7.1				4935.8	5085.38	4935.8	5086.4
X1	438	59	4935.8	5086.4	465	527	494			

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 X3       10
 GR   1713.5      4359.7    1713.7      4416.1    1713.7      4459      1713.9      4512.1    1714.4      4553.5
 GR   1716.7      4612.7    1718.9      4641.2    1719.1      4652.8    1718.4      4677.2    1718.4      4696.8
 GR   1718.6      4714.2    1721.1      4728.3    1722.6      4738.7    1722.8      4746      1722.1      4755.4
 GR   1720.1      4761.6    1717.7      4776.8    1717.4      4791.8    1717.4      4817.2    1717.2      4839
 GR   1716.2      4856.1    1715.2      4869.4    1715.4      4879.1    1716.9      4893      1717.4      4908.7
 GR   1717.7      4925      1717.4      4926.5    1716.2      4935.8    1714.4      4947.6    1712.7      4957.3
 GR   1712.7      4976.2    1712.5      4990.8    1711        5000      1711.2      5003.7    1712.7      5011.2
 GR   1712.7      5029.1    1713        5048.3    1710.5      5062.4    1710.5      5064.9    1710.5      5066.8
 GR   1712.2      5071.9    1712.8      5073.5    1714.9      5078.4    1716.9      5086.4    1718.2      5110
 GR   1718.2      5137.5    1718.4      5170      1717.9      5185.9    1720.4      5209.1    1720.4      5226.3
 GR   1720.4      5274.8    1720.6      5362.8    1720.6      5438.3    1720.9      5495.4    1720.6      5564.9
 GR   1718.2      5591.7    1718.2      5632.2    1720.4      5657.5    1721.4      5715.6

 X1       439         35      618.4       751.6         28          28          28
 X3       10
 GR   1714.4         0      1717.4        99.2      1721.1       199.9      1723.3       292.7    1724.6       349.5
 GR   1725.8       401      1726.6       443.1      1727.1       499.5      1727.1       560.8    1726.4       618.4
 GR   1714.8       618.5    1714.4       631.5        1712       655.7      1711.845     659.1    1711.764     660.9
 GR   1711.4       668.9    1711.7       676.5      1710.9       680.7      1710.7       685      1710.9       690.8
 GR   1714.2       743.8    1715.338     751.5      1722.5       751.6      1722.4       799.3    1719.6       900.4
 GR   1718.9       950.5    1718.2       997.7      1717.7      1100.8      1717.4      1201.1    1717.9      1298.6
 GR   1718.4      1399.2    1718.4      1499.7      1719.4      1601.2      1719.9      1701.4    1719.6       1799
   Downstream Sahara Ave.
   Normal Bridge
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        Downstream Sahara Ave.
        Normal Bridge
 X1     439.1         37      618.4       751.5          1           1           1
 X3       10
 BT       -26      349.5     1724.6      1724.6        401      1725.8      1725.8       443.1    1726.6       1726.6
 BT                499.5     1727.1      1727.1      560.8      1727.1      1727.1       618.4    1726.4       1726.4
 BT                618.5    1728.42      1714.8      618.5     1728.42     1724.42       659.1    1727.27      1723.27
 BT                659.1    1727.27    1711.845      660.9     1727.27     1711.764       660.9    1727.27      1723.27
 BT                709.1     1725.9      1721.9      709.1      1725.9     1718.913       710.9     1725.9     1713.046
 BT                710.9     1725.9      1721.9      751.5     1724.75     1720.75       751.5     1722.5       1722.5
 BT                799.3     1722.4      1722.4      900.4     1719.6      1719.6        950.5     1718.9       1718.9
 BT                997.7     1718.2      1718.2     1100.8     1717.7      1717.7       1201.1     1717.4       1717.4
 BT               1298.6     1717.9      1717.9     1399.2     1716.4      1718.4
 GR   1714.4         0      1717.4        99.2      1721.1       199.9      1723.3       292.7    1724.6       349.5
 GR   1725.8       401      1726.6       443.1      1727.1       499.5      1727.1       560.8    1726.4       618.4
 GR   1714.8       618.5    1714.4       631.5        1712       655.7      1711.845     659.1    1711.764     660.9
 GR   1711.4       668.9    1711.7       676.5      1710.9       680.7      1710.7       685      1710.9       690.8
 GR   1712.9     709.1     1713.046      710.9      1714.2       743.8     1715.338      751.5    1722.5       751.5
 GR   1722.4       799.3     1719.6       900.4      1718.9       950.5      1718.2       997.7    1717.7      1100.8
 GR   1717.4      1201.1    1717.9      1298.6      1718.4      1399.2      1718.4      1499.7    1719.4      1601.2
 GR   1719.9      1701.4    1719.6        1799

 ET                  9.1       7.11                                                      711.1     842.91       600          1000
 X1       440         46      709.8       842.95         104         104         104
 X3       10
 BT       -28      349.5     1724.6      1724.6        401      1725.8      1725.8       443.1    1726.6       1726.6
 BT                499.5     1727.1      1727.1      560.8      1727.1      1727.1       626.8    1726.3       1726.3
 BT                  660     1725.6      1725.6      699.8      1725.3      1725.3       709.8    1726.17      1726.17
 BT                709.9    1728.42     1719.031      709.9     1728.42     1724.42       750.5    1727.27      1723.27
 BT                750.5    1727.27    1713.599      752.3     1727.27      1713.6       752.3    1727.27      1723.27
 BT                800.5     1725.9      1721.9      800.5      1725.9     1714.472       802.3     1725.9     1714.572
 BT                802.3     1725.9      1721.9      842.9     1724.75     1720.75       842.9    1724.75     1717.944
 BT               842.95     1722.5      1722.5      900.4     1719.6      1719.6        950.5     1718.9       1718.9
 BT                997.7     1718.2      1718.2     1100.8     1717.7      1717.7       1201.1     1717.4       1717.4
 BT               1298.6     1717.9      1717.9
 GR   1714.4         0      1717.4        99.2      1721.1       199.9      1723.3       292.7    1724.6       349.5
 GR   1725.8       401      1726.6       443.1      1727.1       499.5      1727.1       560.8    1726.3       626.8
 GR   1725.6       660      1725.3       699.8     1726.17       709.8     1719.031      709.9    1716.1         716
 GR   1716.1       720      1715.1       726.1      1713.7       733.8      1713.4       740.9    1713.599     750.5
 GR   1713.6       752.3    1713.7       755.4      1713.7       765.2        1712       771.4    1711.7       776.4
 GR   1713.9       782.6    1713.9       787.5      1714.2       795.6     1714.472      800.5    1714.572     802.3
 GR   1715.4       817.2    1715.9       825.8      1717.6       837.6     1717.944      842.9    1722.5       842.95
 GR   1719.6       900.4    1718.9       950.5      1718.2       997.7      1717.7      1100.8    1717.4      1201.1
 GR   1717.9      1298.6    1718.4      1399.2      1718.4      1499.7      1719.4      1601.2    1719.9      1701.4
 GR   1719.6        1799

 X1     440.1         46      709.8       842.95          1           1           1
 X3       10
 GR   1714.4         0      1717.4        99.2      1721.1       199.9      1723.3       292.7    1724.6       349.5
 GR   1725.8       401      1726.6       443.1      1727.1       499.5      1727.1       560.8    1726.3       626.8
 GR   1725.6       660      1725.3       699.8     1726.17       709.8     1719.031      709.9    1716.1         716
 GR   1716.1       720      1715.1       726.1      1713.7       733.8      1713.4       740.9    1713.599     750.5
 GR   1713.6       752.3    1713.7       755.4      1713.7       765.2        1712       771.4    1711.7       776.4

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 GR   1713.9       782.6    1713.9       787.5      1714.2       795.6     1714.472      800.5    1714.572     802.3
 GR   1715.4       817.2    1715.9       825.8      1717.6       837.6     1717.944      842.9    1722.5       842.95
 GR   1719.6       900.4    1718.9       950.5      1718.2       997.7      1717.7      1100.8    1717.4      1201.1
 GR   1717.9      1298.6    1718.4      1399.2      1718.4      1499.7      1719.4      1601.2    1719.9      1701.4
 GR   1719.6        1799
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 X1      441       62     4903.8     5097.5       31       31       31
 X3       10                                                 1725     1725
 GR   1718.9   4259.8     1718.9     4302.3   1716.2   4324.1   1713.9   4350.1   1716.2   4369.2
 GR   1716.4   4381.9     1714.7     4413.7   1714.4   4456.9   1713.5   4496.4   1714.9   4525.1
 GR   1716.1   4593.7     1717.4     4613.3   1717.2     4639   1716.1   4659.3   1716.2   4671.3
 GR   1716.9     4685     1718.4     4706.4   1718.9   4734.5   1720.1   4767.8   1720.1   4802.2
 GR   1721.4   4827.2     1721.6     4843.8   1721.6   4861.8   1720.1   4876.3   1718.9   4888.1
 GR   1717.3   4902.5     1717.2     4903.8   1716.2   4920.7   1714.9   4936.5   1713.9   4953.2
 GR   1713.2   4968.2     1712.7     4986.2   1712.7   4994.1   1711.7   4997.7   1711.7     5000
 GR   1711.7   5002.3     1712.5     5006.7   1713.5   5020.3   1713.7   5039.5   1715.2   5059.1
 GR   1716.4   5079.4     1716.7     5096.5   1716.7   5097.5   1716.9   5123.6   1717.2     5142
 GR   1717.7   5163.3     1720.1     5179.9   1720.4   5215.1   1719.9   5276.4   1718.4     5295
 GR   1716.9     5307     1716.7     5344.4   1719.1   5359.7   1720.1   5376.5   1720.1     5404
 GR   1720.6   5452.8     1721.1     5490.7   1721.1   5538.9   1721.1   5585.4   1721.6   5630.6
 GR   1721.6   5669.5     1721.1     5698.6

 NC     0.03     0.15      0.025        0.1      0.3
 QT        2     5993       5993
 ET                9.1        7.1                                  66   527.91       66      644
 X1      442       13         66        520      497      447      466
 X3       10
 GR     1722        0       1720         66     1720      255   1714.2      268   1712.4      310
 GR   1712.4      315     1712.5        320   1714.2      337     1716      370     1716      470
 GR     1721      520       1724       1082     1724     1407

 NC     0.03     0.03      0.025
 ET                9.1        7.1                              541.03   929.62   492.08   991.72
 X1      444       87     649.77     801.43      314      270      299
 X3       10
 GR   1718.1        0     1718.86     224.52   1720.83   349.36   1720.83   349.63   1720.83   349.95
 GR   1720.8   350.29     1720.83     350.64   1720.84   350.96   1720.11   362.81   1720.11   363.03
 GR   1719.9   403.33     1719.87     403.48     1721.1   418.61   1721.11   418.94   1723.09   491.94
 GR   1723.1   492.09     1723.08     492.18   1722.84   514.09   1721.85   528.3    1721.85   528.41
 GR   1720.4   547.89     1720.86     575.25   1720.86   575.35   1720.87   598.81   1720.13   613.19
 GR   1720.1   624.05     1720.1      624.09     1720.1   634.43   1718.89   649.77   1716.66   663.57
 GR   1716.7   663.57     1716.59     666.79   1716.17   685.63   1716.17   685.63   1716.17   699.31
 GR   1716.2   699.32     1716.2      712.56     1716.2   712.57   1716.1    721.32   1716.1    721.33
 GR   1713.9   731.94     1713.95     731.95   1713.94   731.96   1713.94   731.97   1714.68   742.37
 GR   1714.7   742.38     1715.68     751.8    1715.68   751.84   1716.43   764.47   1716.43   764.5
 GR   1716.4   776.07     1716.67     786.5    1716.67   786.57   1717.68   794.06   1717.67   794.09
 GR   1718.9   801.43     1719.15     810.08   1719.16   810.12   1719.16   810.18   1719.65   830.21
 GR   1719.6   830.26     1720.11     859.36   1720.12     859.5  1720.32   884.61   1720.32   884.86
 GR   1720.4   906.24     1720.89     928.82   1720.89   929.03   1721.63   950.34   1721.88   966.41
 GR   1721.9   966.79     1722.61     990.53   1722.61   991.44   1722.61  1060.15   1720.42  1075.69
 GR   1719.7  1091.13     1719.66    1091.44   1719.65  1091.67   1719.42  1128.47   1721.6   1145.49
 GR   1721.6  1146.38     1721.48    1182.56   1720.69  1420.41   1720.61  1453.08   1721.82  1696.29
 GR   1722.3  1836.19     1722.33    1879.56
1
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 ET                9.1        7.1                              561.88   737.35    454.6      753
   Attempts were made to remove .04' negative surcharge on floodway profile
   by both widening and narrowing encroachments. Negative Surcharge
   is due to computational shortcomings of HEC-2 computer program
         Attempts were made to remove .04' negative surcharge on floodway profile
         by both widening and narrowing encroachments. Negative Surcharge
         is due to computational shortcomings of HEC-2 computer program
 X1      446       91     565.43     731.96      410      360      390
 GR   1720.9        0     1720.96       1.95   1720.76    14.81   1721.16   140.89   1721.83   184.96
 GR   1721.9   218.73     1721.85     226.04   1723.18   236.49   1724.44   298.22    1724.2   301.94
 GR   1724.1   314.65     1723.69     357.47   1724.06      362   1723.74   381.35   1724.31   402.89
 GR   1723.8   409.64      1724.5     419.81   1725.04   437.03   1724.97   443.25   1725.34   454.61
 GR   1725.1   458.59     1724.64     464.08   1724.71   497.67   1724.84   505.03   1724.83   511.39
 GR     1724   541.31     1723.79     545.03   1723.78   547.84   1722.15   562.81   1722.15   565.43
 GR   1721.8   569.34     1720.75     585.89   1720.19   589.32   1719.83   596.12   1719.33   601.36
 GR   1718.7   609.58     1718.61     614.87   1718.62   622.45   1718.62     625.7  1718.06   635.78
 GR   1718.1   638.88     1718.26     645.12   1718.24   647.15   1717.48     655.5  1716.98   657.93
 GR   1716.6   661.76     1715.85     666.02   1715.67   669.59   1715.83   671.92   1717.75   675.66
 GR     1718   677.76      1717.8     691.76   1717.96   694.51   1718.55   700.95   1718.55   705.44
 GR   1718.6    705.7     1719.45     722.23   1719.66    723.8   1721.38   730.45   1721.64   731.96
 GR   1721.7   733.75     1722.92     741.72     1723.1   753.35    1723.2   757.32   1722.02   767.64
 GR   1722.1   773.32     1722.94      794.8   1722.97   799.48   1723.28   833.72   1723.29   837.37
 GR   1723.4   841.26     1723.41     866.12   1723.53   869.54   1723.57   872.15   1723.14   908.33
 GR   1723.2   911.74     1723.05     989.35   1723.05   996.45   1722.81   998.09   1722.73   999.74
 GR   1721.9  1019.93     1720.99    1034.4    1720.97  1039.73   1721.16  1039.27   1721.15  1090.81
 GR   1721.1  1109.98     1721.08    1112.9    1721.19  1142.87   1722.86  1476.48   1723.53  1682.79
 GR   1723.6  1730.97

 ET                9.1        7.1                              4912.6   5097.2     4800      5150
 X1      448       45     4912.6     5073.7      629      560      595
 X3       10
 GR   1723.9   4653.6     1725.8     4679.7   1726.3   4746.3   1726.3   4766.3   1726.8   4779.3
 GR   1726.3   4794.5     1725.8     4825.9   1725.6   4852.7   1725.3   4879.3   1724.8   4896.3
 GR   1724.8   4912.6     1723.8     4926.6   1722.4   4934.4   1720.6   4943.3   1720.1   4959.5
 GR   1720.2   4975.8     1718.9     4989.7   1717.4   4997.7   1717.4     5000   1717.4   5002.5
 GR   1719.6   5006.6     1720.2     5020.8   1720.1   5035.8   1720.6   5046.3   1721.9   5063.3
 GR   1723.8   5073.7     1724.3       5091   1726.3   5104.7   1729.3   5120.9   1730.3   5131.5
 GR   1730.3   5149.1       1731     5166.9   1730.8   5183.5     1729   5200.7     1730   5213.3
 GR   1730.8   5225.3       1729     5241.2   1725.6   5254.4   1725.3   5272.4   1726.8   5319.4
 GR   1725.8   5366.4     1726.1     5413.3   1725.6   5458.4   1724.8   5507.4     1724   5547.7
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ET		9.1	7.1				4874	5087.15	4828.4	5121.8
X1	450	51	4912.9	5075.3	540	506	527			
GR	1724.1	4580	1724.6	4617.6	1724.6	4647.4	1726.8	4668.4	1728.3	4750.6
GR	1728.5	4770	1728.8	4806	1731	4813.8	1732.5	4827	1732.3	4839.2
GR	1729	4856.8	1726.8	4867.1	1726.3	4885.9	1725.3	4902.3	1726.1	4912.9
GR	1725.1	4925.5	1723.1	4934.3	1721.9	4946	1721.6	4962.4	1720.9	4977.2
GR	1720.1	4990.3	1719.1	4996.8	1719.1	5000	1719.1	5001.9	1720.4	5005.1
GR	1721.6	5016.8	1721.4	5026.9	1722.8	5047.5	1723.6	5064.8	1726.1	5075.3
GR	1726.3	5086.2	1729	5094.6	1730	5104.1	1731.3	5118.3	1731.3	5142.5
GR	1730.5	5167.3	1729.3	5179.9	1726.6	5188.2	1726.6	5198	1726.8	5216.9
GR	1728.1	5228.9	1728.1	5242.4	1728.1	5255.5	1728.1	5290.5	1728.3	5360.1
GR	1726.8	5391.3	1731.3	5419.7	1730.8	5508.7	1726.3	5546.6	1726.6	5585.4

1

GR	1726.3	5617.9								
ET		9.1	7.1				4914.73	5084.48	4828.9	5230.4
X1	452	60	4875.9	5101.6	544	493	517			
GR	1728.8	4349.3	1730.3	4370.2	1732.8	4445.7	1732.8	4487	1732.8	4497.9
GR	1732.5	4544.4	1732.2	4582.9	1731	4628.1	1730.3	4648.3	1730.3	4699
GR	1731.3	4729.9	1729.8	4796.8	1729	4801.6	1729.8	4805.1	1730.5	4815.1
GR	1731.3	4825.5	1731	4859.6	1730.8	4875.9	1729.3	4895.7	1728.3	4911.3
GR	1727.6	4919.5	1725.8	4929.5	1724.5	4939.6	1722.6	4949.8	1722.6	4959.9
GR	1721.6	4970.4	1721.4	4980.9	1721.4	4989.3	1719.4	4997.5	1719.4	5000
GR	1719.4	5001.6	1720.4	5006.2	1721.6	5015.9	1721.6	5032.4	1721.9	5044.5
GR	1723.6	5055.7	1725.3	5068.5	1727.3	5080.2	1729	5090.5	1730	5101.6
GR	1730.3	5124.1	1730	5151.9	1730.3	5172.7	1730	5188	1729.8	5203.1
GR	1731.3	5211.5	1732	5230.2	1731.5	5269.5	1731	5307.8	1727.9	5337.5
GR	1727.9	5384.5	1731.3	5414.9	1732	5468.3	1732.3	5509.2	1732.1	5549.3
GR	1731.5	5593.1	1731.3	5679.9	1727.9	5695.5	1726.8	5711.9	1727.6	5737.7
ET		9.1	7.1				4908.3	5087.3	4822.3	5335
X1	454	46	4908.3	5087.3	514	478	500			
GR	1730.3	4598.9	1730.3	4636.4	1732.3	4666.4	1732.1	4736.5	1732.8	4750.9
GR	1733	4762	1731.8	4773.6	1731.5	4793.9	1734	4822.3	1731.5	4849.1
GR	1731	4875.1	1730.5	4894.1	1729.8	4908.3	1727.8	4923.2	1725.3	4934.5
GR	1723.6	4947.3	1722.4	4958.8	1721.6	4970.4	1721.6	4979.9	1721.4	4985.6
GR	1720.1	4994.4	1720.1	5000	1720.1	5003	1721.6	5011.7	1721.6	5023.9
GR	1722.4	5037.9	1723.3	5049.4	1725.1	5061.1	1727.6	5071.1	1730	5079
GR	1731.5	5087.3	1731.8	5102.2	1732.3	5123.8	1732	5169.8	1732.5	5220.6
GR	1732.5	5276.1	1733	5333.9	1730.3	5356.1	1730.5	5404.5	1732.8	5432.7
GR	1733.5	5503.7	1732.1	5528.3	1731.5	5614.3	1728.1	5636.7	1728.6	5678.3
GR	1730	5696.1								
ET		9.1	7.1				4900	5098.3	4568.8	5699.9
X1	456	43	4900	5098.3	546	475	510			
GR	1734.7	4568.8	1733.3	4607.2	1736.5	4671.1	1734.7	4754.4	1733.7	4782.8
GR	1732.3	4809.3	1732.5	4841.5	1732.3	4881	1733	4900	1731.5	4913.2
GR	1729	4923.1	1726.1	4937.1	1724.2	4956.3	1722.4	4978.4	1721.9	4989.1
GR	1720.4	4994.3	1720.4	5000	1720.4	5002.4	1722.1	5005.9	1722.8	5021.5
GR	1723.6	5035.2	1724.6	5048.8	1726.1	5062.9	1729.3	5076.4	1731.5	5086
GR	1732.2	5098.3	1732.2	5124	1732.8	5142.7	1732.8	5172.4	1732.8	5213.1
GR	1734	5258.3	1732.8	5358.7	1731.8	5370.6	1731.8	5418	1732.8	5445.8
GR	1732.5	5505.2	1732.3	5522	1730.8	5538	1731	5567.5	1730.5	5616.6
GR	1730	5632.4	1729.8	5670.2	1731.5	5699.9				
NC	0.05	0.05	0.04							
ET		9.1	7.1				4895.3	5101.1	4192.8	5792.5
X1	458	50	4895.3	5101.1	396	384	392			
GR	1739.4	4192.8	1738.9	4273.4	1736.2	4353.3	1736.5	4433.3	1736.2	4513.4
GR	1736.5	4593.4	1736.2	4673.3	1736.7	4716.4	1734.2	4753.3	1735.7	4826.5
GR	1735.7	4995.3	1734.7	4908.5	1731.5	4921.6	1728.3	4932.7	1729.3	4947.4
GR	1722.6	4958.1	1722.1	4971.2	1722.1	4986.3	1720.6	4991	1720.6	5000
GR	1720.6	5003.4	1721.6	5010.1	1722.6	5027.9	1723.3	5042	1724.6	5053.7
GR	1728.6	5069.8	1729.5	5076.4	1731.3	5080.8	1734.2	5085.4	1734.7	5093
GR	1736.2	5101.1	1738.5	5131.4	1740.2	5185.5	1739.9	5205.7	1738.5	5233.3
GR	1735	5276.9	1734.5	5364.8	1733	5383	1733	5426	1734.2	5450.5
GR	1735	5510.5	1735	5530.9	1733	5535.8	1733	5553	1733	5619.4

1

GR	1730.8	5641.8	1730.8	5689	1732.8	5713.2	1733	5782.3	1733	5792.5
NC				0.3	0.5					
ET		9.1	7.1				4908.3	5125.7	4158.6	5731.4
X1	460	48	4908.3	5125.7	359	355	357			
GR	1738.3	4158.6	1737.3	4230.5	1736.8	4309.5	1736.6	4388.5	1736.8	4467.5
GR	1736.8	4546.5	1736.3	4625.5	1736.2	4704.6	1734.3	4783.5	1734.3	4806.1
GR	1736.8	4819.4	1738	4843	1736.8	4862.5	1736.4	4886	1735.8	4908.3
GR	1732.6	4925	1728.6	4940.2	1724.2	4967.8	1723.4	4984.9	1721.7	4996
GR	1721.7	5000	1721.7	5005.4	1723.7	5014.5	1724.2	5057.7	1728.1	5071
GR	1732.1	5086.1	1733.8	5094.8	1734.3	5106.7	1736.1	5125.7	1737.1	5151.8
GR	1737.5	5176.6	1737.7	5243.5	1735	5271.7	1735	5293.3	1734.5	5314.4
GR	1736.7	5338.6	1736.7	5400.8	1736	5431.5	1734.7	5443.6	1734.7	5520.6
GR	1732.3	5543.9	1732.8	5573.5	1732.3	5594.6	1733.7	5619.9	1734.5	5684.1
GR	1734.5	5709.9	1733	5716.7	1733	5731.4				
ET		9.1	7.1				4913.3	5084.9	3970.8	5752.6
X1	468	36	4913.3	5084.9	261	286	274			
GR	1738.5	3970.8	1738	4065.2	1738	4152.2	1738.3	4241.2	1738.5	4330.2

	380.000	512.00	.00	.00	1674.20	7100.00	1680.05	1679.62	1681.23	58.34	8.96	920.46	929.59
	380.000	512.00	.00	.00	1674.20	7100.00	1680.66	.00	1681.77	44.56	8.43	842.28	1063.66
*	382.000	509.00	.00	.00	1674.20	7100.00	1682.23	.00	1682.70	16.04	5.82	1447.09	1772.87
*	382.000	509.00	.00	.00	1674.20	7100.00	1682.56	.00	1683.18	17.99	6.34	1119.50	1673.74
	384.000	512.00	.00	.00	1674.40	7100.00	1683.00	.00	1683.68	19.84	6.61	1074.36	1593.89
	384.000	512.00	.00	.00	1674.40	7100.00	1683.46	.00	1684.05	15.94	6.17	1149.97	1778.49
	386.000	535.00	.00	.00	1675.10	7100.00	1684.09	.00	1684.79	21.61	6.74	1052.85	1527.21
	386.000	535.00	.00	.00	1675.10	7100.00	1684.35	.00	1685.00	18.97	6.48	1096.15	1629.93
	388.000	458.00	.00	.00	1675.60	7100.00	1685.06	.00	1685.53	11.70	5.46	1299.37	2075.84
	388.000	458.00	.00	.00	1675.60	7100.00	1685.22	.00	1685.67	10.92	5.35	1327.29	2148.12

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	390.000	532.00	.00	.00	1675.90	7100.00	1685.70	.00	1686.19	12.83	5.63	1262.06	1981.86
	390.000	532.00	.00	.00	1675.90	7100.00	1685.82	.00	1686.29	12.18	5.54	1282.74	2034.45
	392.000	577.00	.00	.00	1676.60	7100.00	1686.43	.00	1686.94	13.20	5.73	1239.47	1954.13
	392.000	577.00	.00	.00	1676.60	7100.00	1686.52	.00	1687.02	12.73	5.66	1253.62	1990.20
	394.000	448.00	.00	.00	1677.40	7100.00	1687.04	.00	1687.61	16.06	6.36	1171.36	1771.53
	394.000	448.00	.00	.00	1677.40	7100.00	1687.10	.00	1687.66	15.61	6.31	1181.90	1797.25
	396.000	507.00	.00	.00	1678.40	7100.00	1687.86	.00	1688.46	16.85	6.20	1144.31	1729.40
	396.000	507.00	.00	.00	1678.40	7100.00	1687.90	.00	1688.49	16.54	6.17	1150.99	1745.72
*	398.000	352.00	.00	.00	1676.30	7100.00	1688.41	.00	1688.63	.67	3.80	1899.81	8703.28
*	398.000	352.00	.00	.00	1676.30	7100.00	1688.44	.00	1688.66	.66	3.78	1906.70	8749.48
	400.000	170.00	.00	.00	1676.30	7100.00	1688.36	.00	1688.71	1.04	4.73	1500.19	6948.16
	400.000	170.00	.00	.00	1676.30	7100.00	1688.39	.00	1688.74	1.04	4.72	1504.14	6976.69
	400.100	88.70	1691.50	1687.10	1676.70	7100.00	1688.80	.00	1689.14	1.05	4.74	1498.40	6935.22
	400.100	88.70	1691.50	1687.10	1676.70	7100.00	1688.83	.00	1689.18	1.04	4.73	1502.60	6965.60
	401.000	218.00	.00	.00	1678.20	7100.00	1688.87	.00	1689.17	1.10	4.41	1617.69	6777.23
	401.000	218.00	.00	.00	1678.20	7100.00	1688.91	.00	1689.20	1.08	4.39	1624.60	6820.61
*	402.000	83.00	.00	.00	1680.90	7100.00	1688.66	.00	1689.28	3.32	6.34	1119.76	3896.90
*	402.000	83.00	.00	.00	1680.90	7100.00	1688.70	.00	1689.31	3.26	6.31	1125.99	3932.06
*	404.000	252.00	.00	.00	1682.20	7100.00	1688.51	.00	1689.51	6.80	8.04	883.39	2723.49
	404.000	252.00	.00	.00	1682.20	7100.00	1688.55	.00	1689.54	6.64	7.98	889.64	2754.73
*	406.000	370.00	.00	.00	1683.90	7100.00	1688.52	1688.52	1690.61	20.81	11.60	612.31	1556.44
*	406.000	370.00	.00	.00	1683.90	7100.00	1688.52	1688.52	1690.61	20.73	11.58	613.04	1559.51
	408.000	303.00	.00	.00	1684.60	7100.00	1689.15	1689.14	1691.24	20.83	11.58	613.09	1556.47
	408.000	303.00	.00	.00	1684.60	7100.00	1689.15	1689.13	1691.23	20.79	11.57	613.45	1556.97
*	410.000	318.00	.00	.00	1686.10	7100.00	1690.65	1690.65	1692.74	20.92	11.59	612.59	1552.18
*	410.000	318.00	.00	.00	1686.10	7100.00	1690.65	1690.65	1692.74	20.95	11.60	612.32	1551.11
*	412.000	215.00	.00	.00	1686.60	7100.00	1692.00	.00	1693.11	9.80	8.46	839.42	2393.41
*	412.000	215.00	.00	.00	1686.60	7100.00	1692.00	.00	1693.11	9.80	8.46	839.50	2393.77
*	414.000	497.00	.00	.00	1688.40	7100.00	1696.29	1696.29	1698.91	105.72	12.99	546.45	690.53
*	414.000	497.00	.00	.00	1688.40	7100.00	1696.29	1696.29	1698.91	105.71	12.99	546.46	690.55
*	416.000	353.00	.00	.00	1689.80	7100.00	1699.69	.00	1701.28	43.15	10.13	701.02	1080.90
*	416.000	353.00	.00	.00	1689.80	7100.00	1699.69	.00	1701.28	43.15	10.13	701.01	1080.87
	418.000	274.00	.00	.00	1691.80	7100.00	1700.61	.00	1703.03	71.68	12.47	569.28	838.60
	418.000	274.00	.00	.00	1691.80	7100.00	1700.61	.00	1703.03	71.68	12.47	569.28	838.60

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	420.000	570.00	.00	.00	1694.00	7100.00	1704.57	.00	1705.95	36.27	9.44	752.23	1178.91
*	420.000	570.00	.00	.00	1694.00	7100.00	1704.57	.00	1705.95	36.27	9.44	752.24	1178.94
*	422.000	319.00	.00	.00	1694.30	7100.00	1705.89	1705.89	1708.81	89.44	14.07	537.03	750.76
*	422.000	319.00	.00	.00	1694.30	7100.00	1705.89	1705.89	1708.81	89.43	14.07	537.04	750.78
*	424.000	458.00	.00	.00	1699.00	5504.38	1709.90	.00	1710.13	8.59	4.06	1421.61	1877.71
*	424.000	458.00	.00	.00	1699.00	5993.00	1709.92	.00	1710.20	10.05	4.40	1428.51	1890.72
*	426.000	268.00	.00	.00	1701.50	5504.38	1710.54	1710.54	1712.15	78.11	10.48	598.31	622.82
*	426.000	268.00	.00	.00	1701.50	5993.00	1710.80	1710.80	1712.41	74.02	10.57	658.79	696.60
*	428.000	485.00	.00	.00	1707.00	5504.38	1713.75	.00	1714.23	24.72	5.55	990.90	1107.06
*	428.000	485.00	.00	.00	1707.00	5993.00	1713.95	.00	1714.47	25.18	5.77	1037.78	1194.37

	430.000	182.00	.00	.00	1708.00	5504.38	1714.25	.00	1714.83	42.41	6.50	990.21	845.27
*	430.000	182.00	.00	.00	1708.00	5993.00	1714.30	.00	1715.30	63.54	8.01	748.09	751.82
*	432.000	565.00	.00	.00	1708.50	5504.38	1715.76	.00	1716.32	17.97	6.46	1038.16	1298.59
*	432.000	565.00	.00	.00	1708.50	5993.00	1716.35	.00	1716.79	12.06	5.78	1271.86	1725.37
*	438.000	494.00	.00	.00	1710.50	5504.38	1716.65	.00	1718.08	44.37	9.60	573.31	826.34
*	438.000	494.00	.00	.00	1710.50	5993.00	1716.83	.00	1718.37	45.04	9.97	601.21	892.98
	439.000	28.00	.00	.00	1710.70	5504.38	1716.65	.00	1718.34	50.85	10.43	527.49	771.88
	439.000	28.00	.00	.00	1710.70	5993.00	1716.81	.00	1718.66	52.78	10.91	549.50	824.95
*	439.100	1.00	1717.40	1726.40	1710.70	5504.38	1716.67	1716.67	1718.62	76.95	11.21	490.86	627.50
*	439.100	1.00	1717.40	1726.40	1710.70	5993.00	1716.90	1716.90	1718.96	76.38	11.53	519.79	685.73
*	440.000	104.00	1717.40	1726.17	1711.70	5504.38	1718.46	1718.46	1720.43	73.39	11.27	488.43	642.51
*	440.000	104.00	1717.40	1726.17	1711.70	5993.00	1718.68	1718.68	1720.77	72.69	11.58	517.69	702.90
*	440.100	1.00	.00	.00	1711.70	5504.38	1719.60	.00	1720.70	24.64	8.39	656.23	1108.90
*	440.100	1.00	.00	.00	1711.70	5993.00	1719.89	.00	1721.05	24.38	8.64	693.97	1213.86
*	441.000	31.00	.00	.00	1711.70	5504.38	1720.63	.00	1720.96	5.28	4.59	1197.97	2395.41
*	441.000	31.00	.00	.00	1711.70	5993.00	1720.97	.00	1721.32	5.23	4.74	1264.13	2620.09
	442.000	466.00	.00	.00	1712.40	5993.00	1721.04	.00	1721.25	3.19	3.70	1617.94	2234.64
	442.000	466.00	.00	.00	1712.40	5993.00	1721.40	.00	1721.58	5.21	3.36	1785.35	2624.92
*	444.000	299.00	.00	.00	1713.90	5993.00	1720.90	.00	1721.82	23.20	7.94	671.84	1244.36
*	444.000	299.00	.00	.00	1713.90	5993.00	1721.29	.00	1721.99	16.48	7.06	1021.26	1476.26
*	446.000	390.00	.00	.00	1715.67	5993.00	1722.25	1722.25	1723.94	59.97	10.45	575.59	773.91
*	446.000	390.00	.00	.00	1715.67	5993.00	1722.21	1722.21	1723.95	62.51	10.58	568.17	758.02
*	448.000	595.00	.00	.00	1717.40	5993.00	1725.23	.00	1726.27	26.23	8.22	753.65	1170.18
*	448.000	595.00	.00	.00	1717.40	5993.00	1725.26	.00	1726.29	25.72	8.16	750.24	1181.72

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	450.000	527.00	.00	.00	1719.10	5993.00	1726.63	.00	1727.68	26.92	8.27	747.48	1155.08
	450.000	527.00	.00	.00	1719.10	5993.00	1726.63	.00	1727.68	26.81	8.26	748.51	1157.33
	452.000	517.00	.00	.00	1719.40	5993.00	1728.01	.00	1728.81	17.33	7.14	839.09	1439.55
	452.000	517.00	.00	.00	1719.40	5993.00	1728.01	.00	1728.80	17.26	7.13	840.09	1442.36
	454.000	500.00	.00	.00	1720.10	5993.00	1728.86	.00	1729.56	12.80	6.68	897.72	1674.79
	454.000	500.00	.00	.00	1720.10	5993.00	1728.86	.00	1729.55	12.83	6.68	897.09	1673.09
	456.000	510.00	.00	.00	1720.40	5993.00	1729.51	.00	1730.33	16.31	7.24	827.60	1484.06
	456.000	510.00	.00	.00	1720.40	5993.00	1729.51	.00	1730.32	16.33	7.25	827.18	1482.95
	458.000	392.00	.00	.00	1720.60	5993.00	1730.53	.00	1731.08	21.39	5.95	1006.78	1295.88
	458.000	392.00	.00	.00	1720.60	5993.00	1730.53	.00	1731.08	21.40	5.95	1006.54	1295.41
	460.000	357.00	.00	.00	1721.70	5993.00	1731.33	.00	1731.95	25.51	6.29	953.24	1186.57
	460.000	357.00	.00	.00	1721.70	5993.00	1731.33	.00	1731.95	25.52	6.29	953.11	1186.33
	468.000	274.00	.00	.00	1722.00	5993.00	1732.04	.00	1732.78	31.48	6.91	866.72	1068.09
	468.000	274.00	.00	.00	1722.00	5993.00	1732.04	.00	1732.78	31.49	6.92	866.65	1067.97
	468.900	47.00	.00	.00	1721.60	5993.00	1732.19	.00	1732.93	28.81	6.89	869.65	1116.56
	468.900	47.00	.00	.00	1721.60	5993.00	1732.19	.00	1732.93	28.81	6.89	869.60	1116.47
	469.000	1.00	1733.90	1737.20	1721.60	5993.00	1732.14	.00	1732.98	52.38	7.35	815.70	828.08
	469.000	1.00	1733.90	1737.20	1721.60	5993.00	1732.14	.00	1732.98	52.39	7.35	815.64	828.00
	470.000	109.00	1733.90	1733.21	1722.60	5993.00	1733.05	.00	1733.64	53.75	6.13	979.67	817.44
	470.000	109.00	1733.90	1733.21	1722.60	5993.00	1733.05	.00	1733.64	53.74	6.13	979.66	817.49
*	470.100	1.00	.00	.00	1722.60	5993.00	1733.17	.00	1733.67	16.11	5.65	1076.11	1493.18
*	470.100	1.00	.00	.00	1722.60	5993.00	1733.17	.00	1733.67	16.11	5.65	1076.04	1493.06
	471.000	41.00	.00	.00	1722.50	5993.00	1733.18	.00	1733.78	12.76	6.22	963.82	1677.63
	471.000	41.00	.00	.00	1722.50	5993.00	1733.18	.00	1733.78	12.76	6.22	963.78	1677.55
	472.000	340.00	.00	.00	1722.70	5993.00	1733.47	.00	1734.46	22.71	8.01	748.09	1257.57
	472.000	340.00	.00	.00	1722.70	5993.00	1733.47	.00	1734.46	22.71	8.01	748.07	1257.50
	474.000	392.00	.00	.00	1724.70	5993.00	1734.33	.00	1735.71	32.60	9.41	636.55	1049.67
	474.000	392.00	.00	.00	1724.70	5993.00	1734.33	.00	1735.71	32.60	9.41	636.54	1049.64
*	478.000	415.00	.00	.00	1724.90	5993.00	1736.00	.00	1736.75	13.92	6.92	866.17	1606.25
*	478.000	415.00	.00	.00	1724.90	5993.00	1736.00	.00	1736.75	13.92	6.92	866.14	1606.17
	479.100	44.00	.00	.00	1724.90	5993.00	1736.40	.00	1736.88	8.86	5.52	1086.22	2013.82
	479.100	44.00	.00	.00	1724.90	5993.00	1736.40	.00	1736.88	8.86	5.52	1086.22	2013.82
*	480.000	102.00	1741.50	1731.00	1725.20	5993.00	1738.58	.00	1738.82	3.57	3.95	1518.87	3170.62
*	480.000	102.00	1741.50	1731.00	1725.20	5993.00	1738.58	.00	1738.82	3.57	3.95	1518.87	3170.62

GR	1739.9	4419.2	1739.3	4508.2	1739.5	4589.4	1739.3	4694.6	1738.3	4775.2
GR	1737.8	4826.9	1738	4864.2	1736.6	4881.3	1735.6	4913.3	1732.1	4930.3
GR	1728.1	4954.1	1725.4	4969.6	1724.2	4985.1	1722	4993.6	1722	5000
GR	1722	5004.4	1723.4	5019.1	1724.2	5040.7	1728.1	5057.1	1732.1	5072.4
GR	1736.1	5084.9	1736.1	5094.4	1737.3	5107.5	1738.5	5131.1	1738	5220.2
GR	1737.5	5309.2	1737.1	5398.1	1736.3	5487.2	1735.8	5576.2	1735.3	5665.2
GR	1734.3	5752.6								
ET		9.1	7.1				1073.2	1269	640	1980.6
X1	468.9	33	1073.2	1269	47	47	47			
GR	1738.1	640	1738.1	693.4	1737.2	792.5	1737.4	891.5	1737.2	990.5
GR	1737.2	1073.2	1736.5	1082.9	1736	1091	1733.4	1101.6	1732	1108.9
GR	1729	1122.1	1725.5	1133.6	1725	1142.3	1724.5	1151.4	1721.6	1161.9
GR	1721.6	1170.2	1723.6	1178.8	1723.8	1186	1723.6	1190.8	1724.1	1206.3
GR	1725.5	1218	1728	1227.7	1731.7	1238.9	1735.2	1252.1	1736.7	1269
GR	1736.2	1287.5	1736.2	1386.6	1736.1	1485.5	1736.1	1584.5	1734.4	1683.5
GR	1734.4	1782.5	1734.4	1881.6	1733.9	1980.6				

Downstream Nellis Blvd
Normal Bridge

Downstream Nellis Blvd
Normal Bridge

X1	469	40	1096.25	1235.75	1	1	1			
X3	10									
BT	-33	661	1738.1	1738.1	693.4	1738.1	1738.1	792.5	1737.2	1737.2
BT		891.5	1737.4	1737.4	990.5	1737.2	1737.2	1096.24	1737.2	1737.2
BT		1096.25	1741.31	1737.2	1117.1	1741.27	1733.17	1117.1	1741.27	1730.136
BT		1118.6	1741.27	1729.8	1118.6	1741.27	1733.17	1149.2	1741.14	1733.04
BT		1149.2	1741.14	1724.621	1150.7	1741.14	1724.538	1150.7	1741.14	1733.04
BT		1181.3	1741.01	1732.91	1181.3	1741.01	1723.669	1182.8	1741.01	1723.7
BT		1182.8	1741.01	1732.91	1213.4	1740.88	1732.78	1213.4	1740.88	1724.95
BT		1214.9	1740.88	1725.1	1214.9	1740.88	1732.78	1235.75	1740.73	1732.63
BT		1235.75	1736.7	1736.7	1287.5	1736.2	1736.2	1386.6	1736.2	1736.2
BT		1485.5	1736.1	1736.1	1584.5	1736.1	1736.1	1683.5	1734.4	1734.4
BT		1782.5	1734.4	1734.4	1881.6	1734.4	1734.4	1980.6	1733.9	1733.9

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GR	1738.1	661	1738.1	693.4	1737.2	792.5	1737.4	891.5	1737.2	990.5
GR	1737.2	1096.24	1737.2	1096.25	1733.2	1096.25	1733.154	1101.6	1732	1108.9
GR	1730.1	1117.1	1729.8	1118.6	1729	1122.1	1725.5	1133.6	1725	1142.3
GR	1724.6	1149.2	1724.5	1150.7	1724.5	1151.4	1721.6	1161.9	1721.6	1170.2
GR	1723.6	1178.8	1723.7	1181.3	1723.7	1182.8	1723.8	1186	1723.6	1190.8
GR	1724.1	1206.3	1725	1213.4	1725.1	1214.9	1725.5	1218	1728	1227.7
GR	1732.6	1235.75	1736.7	1235.75	1736.2	1287.5	1736.2	1386.6	1736.1	1485.5
GR	1736.1	1584.5	1734.4	1683.5	1734.4	1782.5	1734.4	1881.6	1733.9	1980.6
X1	470	46	1111.85	1251.35	109	109	109			
X3	10									
BT	-33	711.5	1737.2	1737.2	792.5	1737.2	1737.2	891.5	1737.4	1737.4
BT		990.5	1737.2	1737.2	1004.06	1736.811	1736.811	1111.84	1736.81	1733.21
BT		1111.85	1741.31	1733.21	1132.7	1741.27	1733.17	1132.7	1741.27	1728.1
BT		1134.2	1741.27	1727.828	1134.2	1741.27	1733.17	1164.8	1741.14	1733.04
BT		1164.8	1741.14	1724.2	1166.3	1741.14	1723.931	1166.3	1741.14	1733.04
BT		1196.9	1741.01	1732.91	1196.9	1741.01	1723.596	1198.4	1741.01	1723.696
BT		1198.4	1741.01	1732.91	1229	1740.88	1732.78	1229	1740.88	1724.1
BT		1230.5	1740.88	1724.217	1230.5	1740.88	1732.78	1251.36	1740.73	1732.63
BT		1251.36	1736.23	1732.63	1488.7	1736.23	1734.9	1497.6	1736.23	1734.9
BT		1528.81	1736.23	1736.23	1584.5	1736.1	1736.1	1683.5	1734.4	1734.4
BT		1782.5	1734.4	1734.4	1881.6	1734.4	1734.4	1980.6	1733.9	1733.9
GR	1737.2	711.5	1737.2	792.5	1737.4	891.5	1737.2	990.5	1736.811	1004.06
GR	1736.8	1004.06	1733.21	1111.84	1733.21	1111.85	1730.5	1117.9	1729.7	1120.5
GR	1727.5	1123.9	1728.3	1131.7	1728.1	1132.7	1727.828	1134.2	1727.3	1137
GR	1726.3	1145	1725.5	1156.2	1724.2	1164.8	1723.931	1166.3	1723.9	1166.5
GR	1723.6	1172	1722.6	1176.1	1722.6	1182.8	1722.6	1187	1723.3	1192.5
GR	1723.6	1196.9	1723.696	1198.4	1724.2	1205.9	1724.1	1218.9	1724.1	1229
GR	1724.1	1229.5	1724.217	1230.5	1724.8	1235.5	1726.5	1239.2	1726.5	1242.6
GR	1732.6	1251.35	1732.6	1251.36	1734.9	1488.7	1734.9	1497.6	1736.23	1528.81
GR	1736.2	1528.81	1736.1	1584.5	1734.4	1683.5	1734.4	1782.5	1734.4	1881.6
GR	1733.9	1980.6								
ET		9.1	7.1				675	1980.6	675	1980.6
X1	470.1	47	1111.85	1251.36	1	1	1			
GR	1738.1	675	1738.1	693.4	1737.2	792.5	1737.4	891.5	1737.2	990.5
GR	1736.8	1004.06	1736.8	1004.06	1733.21	1111.84	1733.21	1111.85	1730.5	1117.9
GR	1729.7	1120.5	1727.5	1123.9	1728.3	1131.7	1728.1	1132.7	1727.828	1134.2
GR	1727.3	1137	1726.3	1145	1725.5	1156.2	1724.2	1164.8	1723.931	1166.3
GR	1723.9	1166.5	1723.6	1172	1722.6	1176.1	1722.6	1182.8	1722.6	1187
GR	1723.3	1192.5	1723.6	1196.9	1723.696	1198.4	1724.2	1205.9	1724.1	1218.9
GR	1724.1	1229	1724.1	1229.5	1724.217	1230.5	1724.8	1235.5	1726.5	1239.2
GR	1726.5	1242.6	1732.6	1251.35	1732.6	1251.36	1734.9	1488.7	1734.9	1497.6
GR	1736.2	1528.81	1736.2	1528.81	1736.1	1584.5	1734.4	1683.5	1734.4	1782.5
GR	1734.4	1881.6	1733.9	1980.6						
NC	0.05	0.05	0.03							
ET		9.1	7.1				4918.1	5083.4	4556.5	5791.7
X1	471	31	4918.1	5083.4	41	41	41			
GR	1737.5	4556.5	1737.3	4621.5	1737.3	4686.6	1737.8	4751.6	1737.8	4779.1
GR	1736.1	4832.8	1734.8	4875.6	1736.1	4918.1	1732.1	4935	1728.4	4949.5
GR	1725.4	4962.2	1725.2	4975.5	1722.5	4992.4	1722.5	5000	1722.5	5002.6
GR	1723.9	5011.5	1725.4	5043.1	1729.6	5056.6	1732.8	5073.2	1735.8	5083.4
GR	1736.1	5141.5	1736.3	5206.5	1736.8	5271.5	1737.1	5336.5	1737.5	5401.5

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GR	1737.1	5466.5	1736.6	5531.5	1736.3	5596.5	1736.1	5661.5	1735.3	5726.5
GR	1734.6	5791.7								
NC				0.1	0.3					
ET		9.1	7.1				4926.8	5079.5	4434.9	5634.1
X1	472	40	4926.8	5079.5	284	398	340			
GR	1739.5	4434.9	1738.5	4492.9	1736.6	4518.1	1737.1	4533.2	1738.3	4589.6
GR	1739	4610.1	1739.3	4656.5	1739	4704	1739.5	4739	1739.3	4794.3
GR	1738.5	4822.3	1738	4884.7	1736.8	4889.2	1736.3	4912.8	1737.8	4926.8
GR	1734.1	4942.4	1730.1	4954.7	1726.4	4967.3	1725.9	4985.2	1722.7	4997.8
GR	1722.7	5000	1722.7	5006.3	1724.9	5019.1	1726.7	5036.8	1730.6	5046.4
GR	1734.1	5064.5	1737.1	5079.5	1736.8	5128.4	1737.8	5163.4	1738	5223.4
GR	1738.3	5275.5	1738.5	5364.5	1738.8	5397.4	1739	5439.8	1739	5480.1
GR	1738	5515.7	1738.5	5561.7	1737.1	5580.2	1737.5	5606.3	1737.1	5634.1
NC				0.3	0.5					
ET		9.1	7.1				4926.5	5064.3	4365.6	5496.4
X1	474	41	4926.5	5064.3	368	420	392			
GR	1739.3	4365.6	1738.3	4402	1738.5	4420	1739.3	4456.6	1740.3	4494.9
GR	1740.8	4516	1741	4576	1741.3	4627.9	1740.1	4644.4	1740.8	4654.3
GR	1740.8	4723.1	1740.1	4738.4	1741	4753.3	1740.5	4807.1	1740.1	4829.4
GR	1739.3	4870.7	1738.3	4892	1736.3	4926.5	1735.1	4946.6	1731.1	4960.6
GR	1727.2	4971.5	1726.9	4984.8	1724.7	4994.4	1724.7	5000	1724.7	5009
GR	1726.4	5017.6	1728.4	5033.5	1731.8	5046	1735.8	5054.6	1739.5	5064.5
GR	1740.2	5078.9	1740.5	5126.3	1740.3	5190.1	1739.8	5272.5	1738	5303.4
GR	1738.3	5323.6	1738.8	5347.6	1738.3	5371.6	1740	5394.6	1740.2	5465
GR	1740.3	5496.4								
X1	478	32	4913.8	5088.4	386	456	415			
X3	10									
GR	1739.6	4326.8	1739.3	4374.5	1741	4402.8	1740.1	4675.4	1740.1	4721.3
GR	1740.5	4726.4	1740.3	4913.8	1738.8	4932.7	1736.1	4939.8	1731.8	4952.1
GR	1728.1	4966.6	1726.4	4988.3	1724.9	4995.4	1724.9	5000	1724.9	5010.6
GR	1727.9	5027.5	1728.4	5041.6	1730.3	5047.1	1736.3	5056.7	1740.3	5072.9
GR	1741.5	5088.4	1741.5	5146.1	1741	5231.1	1740.8	5248.2	1740.5	5298.9
GR	1741.3	5326.1	1742	5367.1	1742.7	5607.1	1742.7	5687.1	1742.2	5767.1
GR	1743	5847.1	1742.7	5929.3						

Downstream Charleston Blvd.
Special Bridge

Downstream Charleston Blvd.
Special Bridge

X1	479.1	45	4907	5072	44	44	44			
X3	10									
GR	1740.8	4331	1740.3	4410.6	1740.3	4490.6	1739.8	4570.6	1739.8	4650.6
GR	1739.5	4730.6	1739	4810.6	1738.8	4888.6	1738.5	4907	1737	4910.3
GR	1734.6	4923.1	1732.6	4927.1	1732.279	4928	1729.6	4935.5	1728.4	4945.1
GR	1728.3	4951.25	1728.292	4952.75	1728.2	4960.9	1726.6	4972.3	1725.7	4978.2
GR	1725.5	4983.25	1725.46	4984.75	1724.9	5000	1725.7	5005.7	1726.327	5015.25
GR	1726.4	5016.75	1726.6	5019.4	1729.1	5033.5	1731.8	5042	1735.275	5047.25
GR	1733.7	5048.75	1738.933	5072	1739.5	5076.8	1740.7	5119.5	1740.3	5129.9
GR	1740.3	5210.6	1740.5	5290.6	1740.5	5370.6	1740.8	5450.6	1741	5530.6
GR	1740.5	5610.6	1741	5690.6	1741.8	5770.6	1742	5850.6	1742.2	5930.2

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ET		9.1	7.1				4900	5100	4885	5930.2
SB	1.05	1.56	2.6	144	100	6	600	1.5	1725.2	1725.2
X1	480	49	4910.3	5090.9	102	102	102			
X2			1	1731	1741.5			1.33		
X3	10									
GR	1740.8	4331	1740.3	4410.6	1740.3	4490.6	1739.8	4570.6	1739.8	4650.6
GR	1739.5	4730.6	1739	4810.6	1738.5	4885.1	1739.872	4907	1739.8	4909.5
GR	1739.5	4910.3	1738.626	4912.34	1736.5	4917.4	1734.8	4928	1733	4939
GR	1729.6	4944.9	1729	4951.25	1728.866	4952.75	1728.6	4955.6	1728.6	4968.2
GR	1726.6	4980.4	1726.2	4983.25	1725.966	4984.75	1725.2	4990	1725.2	5000
GR	1726.4	5009.3	1727	5015.25	1727.191	5016.75	1727.6	5020.6	1727.4	5034.8
GR	1727.1	5047.25	1727.1	5047.6	1727.251	5048.75	1727.9	5053.7	1730.3	5059.2
GR	1734.8	5072	1739.497	5087.01	1741	5090.9	1742	5110.8	1740.3	5210.6
GR	1740.5	5290.6	1740.5	5370.6	1740.8	5450.6	1741	5530.6	1740.5	5610.6
GR	1741	5690.6	1741.8	5770.6	1742	5850.6	1742.2	5930.2		
ET		9.1	7.1				4925.6	5086.7	4346.5	5922.8
X1	481	51	4925.6	5086.7	32	32	32			
GR	1740.3	4346.5	1739.3	4369	1740.8	4395.7	1741.5	4442.7	1740.8	4473.6
GR	1740.5	4530.6	1740.8	4552	1741.5	4573	1742.2	4609.6	1741.8	4624.6
GR	1740.5	4634.9	1740.8	4670.6	1741.5	4703.8	1743	4771.8	1742.2	4824.4
GR	1741.8	4874.1	1741.8	4911.3	1740.3	4920.3	1741.5	4925.6	1737.3	4935.4
GR	1733.3	4943.6	1729.6	4950.6	1728.1	4977.3	1725.2	4993.7	1725.2	5000
GR	1725.2	5006	1727.7	5020.3	1727.7	5053.3	1730.9	5058.1	1735.1	5066.1
GR	1739	5071.3	1742	5076.3	1742.7	5086.7	1742.5	5154.1	1743.2	5214.4
GR	1739.5	5238.2	1740.1	5287	1743.5	5295	1744.2	5339.4	1745	5406.5
GR	1745.2	5456.3	1746	5514.6	1747.2	5565.9	1748.2	5673.4	1746.9	5739.9
GR	1746.9	5764.4	1744.7	5788.3	1744.7	5824.9	1744.2	5873.4	1741.5	5903
GR	1741	5922.8								
NC				0.1	0.3					

ET		9.1	7.1				4921.8	5075.4	4289.2	5808.4
X1	482	41	4921.8	5075.4	205	205	205			
GR	1741.3	4289.2	1740.8	4327.3	1740.8	4365.2	1740.5	4401.8	1741.8	4441.2
GR	1742.2	4593.2	1740.8	4652.3	1741.5	4668.8	1741.8	4710.6	1742.5	4745.2
GR	1743	4797	1744	4888.7	1744.2	4921.8	1740	4929.5	1736.1	4939.4
GR	1732.1	4946.3	1729.1	4949	1728.6	4973.2	1728.6	4986.4	1725.2	4994.8
GR	1725.2	5000	1725.2	5007.1	1728.5	5017.1	1731.1	5056	1735.1	5064
GR	1739	5070.3	1743	5075.4	1743	5116.8	1743	5169.9	1740.5	5195
GR	1740.8	5219.9	1740.8	5242.9	1743.5	5256.3	1744.2	5359.2	1745.5	5448.9
GR	1746.7	5539.9	1741.5	5640.9	1746.9	5745.3	1746.7	5785.1	1745	5793.4
GR	1745	5808.4								

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T1 LAS VEGAS WASH, CLARK COUNTY, NEVADA - Duck Creek to Charleston Blvd.
T2 Nolte and Associates, Jan 1998
T3 Boundary condition: WSEL at XS306 from LVDUCK.DAT

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		3						7100	1572.88	

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2		-1					-6		

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THIS RUN EXECUTED 26JAN99 09:35:01

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Boundary condition: WSEL

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	306.000	.00	.00	.00	1561.10	7100.00	1572.44	.00	1572.50	4.05	2.17	4218.26	3526.68
	306.000	.00	.00	.00	1561.10	7100.00	1572.88	.00	1572.96	4.94	2.51	2871.52	3192.97
*	308.000	631.00	.00	.00	1571.00	7100.00	1574.18	1574.18	1574.85	148.95	6.44	1205.10	581.76
*	308.000	631.00	.00	.00	1571.00	7100.00	1574.51	1574.51	1575.47	147.70	9.08	941.29	584.22
*	310.000	490.00	.00	.00	1572.20	7100.00	1576.69	.00	1576.93	40.92	6.59	2366.83	1109.92
*	310.000	490.00	.00	.00	1572.20	7100.00	1577.56	.00	1578.02	51.22	8.25	1758.51	992.03
*	312.000	450.00	.00	.00	1571.80	7100.00	1577.84	1577.84	1577.87	1.65	1.22	4855.49	5519.89
*	312.000	450.00	.00	.00	1565.10	7100.00	1578.38	.00	1578.54	8.83	3.10	2221.46	2388.79
*	314.000	354.00	.00	.00	1573.70	7100.00	1579.29	1579.29	1579.89	88.07	8.26	1484.73	756.55
*	314.000	354.00	.00	.00	1573.70	7100.00	1579.93	1579.93	1580.73	76.75	8.68	1235.23	810.42
*	316.000	550.00	.00	.00	1575.50	7100.00	1581.68	.00	1581.89	18.34	3.88	2514.36	1657.96
*	316.000	550.00	.00	.00	1575.50	7100.00	1582.28	.00	1582.49	16.43	3.96	2188.25	1751.75
*	318.000	510.00	.00	.00	1582.10	7100.00	1587.08	1587.08	1587.52	67.05	8.49	2044.52	867.10
*	318.000	510.00	.00	.00	1582.10	7100.00	1587.33	1587.33	1587.83	64.63	8.68	1823.06	883.15
*	320.000	310.00	.00	.00	1583.80	7100.00	1586.61	.00	1586.70	26.66	4.23	2972.45	1375.09
*	320.000	310.00	.00	.00	1583.80	7100.00	1588.80	.00	1588.91	23.27	4.13	2762.58	1471.81
*	322.000	430.00	.00	.00	1584.40	7100.00	1592.74	1592.74	1593.34	27.25	8.03	2098.35	1360.16
*	322.000	430.00	.00	.00	1584.40	7100.00	1592.74	1592.74	1593.36	27.69	8.10	2046.47	1349.33
*	324.000	490.00	.00	.00	1588.20	7100.00	1595.46	1595.46	1596.01	29.21	7.84	2191.10	1313.60
*	324.000	490.00	.00	.00	1588.20	7100.00	1595.47	1595.47	1596.05	30.26	7.98	2100.81	1290.64
*	326.000	550.00	.00	.00	1591.40	7100.00	1598.31	1598.31	1598.78	47.78	9.04	2250.19	1027.18
*	326.000	550.00	.00	.00	1591.40	7100.00	1598.32	1598.32	1598.79	48.11	9.08	2217.63	1023.59

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K

*	328.000	320.00	.00	.00	1595.00	7100.00	1601.18	1601.18	1601.62	67.75	9.78	2067.42	862.57
*	328.000	320.00	.00	.00	1595.00	7100.00	1601.18	1601.18	1601.62	67.67	9.77	2068.29	863.09
	330.000	400.00	.00	.00	1597.30	7100.00	1604.23	.00	1604.74	65.15	9.60	1816.90	879.65
	330.000	400.00	.00	.00	1597.30	7100.00	1604.23	.00	1604.74	65.21	9.60	1816.22	879.22
*	332.000	440.00	.00	.00	1602.80	7100.00	1609.62	1609.62	1610.32	101.41	8.86	1314.43	705.03
*	332.000	440.00	.00	.00	1602.80	7100.00	1609.61	1609.61	1610.32	103.06	8.92	1305.51	699.37
*	334.000	410.00	.00	.00	1604.90	7100.00	1614.06	1614.06	1615.02	36.20	9.88	1371.05	1180.03
*	334.000	410.00	.00	.00	1604.90	7100.00	1614.04	1614.04	1615.02	36.73	9.94	1360.80	1171.57
*	336.000	440.00	.00	.00	1607.10	7100.00	1617.56	1617.56	1618.52	111.26	10.36	957.71	673.11
*	336.000	440.00	.00	.00	1607.10	7100.00	1617.56	1617.56	1618.52	111.41	10.37	957.19	672.67
*	338.000	542.00	.00	.00	1625.50	7100.00	1628.50	1628.50	1628.96	103.30	6.93	1457.30	698.56
*	338.000	542.00	.00	.00	1625.50	7100.00	1628.47	1628.47	1628.96	109.82	7.10	1425.26	677.52
*	340.000	440.00	.00	.00	1617.97	7100.00	1629.83	1625.49	1630.60	17.96	7.82	1674.26	1675.18
*	340.000	440.00	.00	.00	1617.97	7100.00	1629.84	.00	1630.59	17.66	7.76	1677.21	1689.51
*	342.000	533.00	.00	.00	1620.50	7100.00	1632.68	1632.68	1633.47	27.23	8.14	1613.27	1360.70
*	342.000	533.00	.00	.00	1620.50	7100.00	1632.68	1632.68	1633.47	27.21	8.14	1613.69	1361.01
*	344.000	510.00	.00	.00	1631.60	7100.00	1638.47	1638.47	1639.02	37.26	8.28	1788.52	1163.22
*	344.000	510.00	.00	.00	1631.60	7100.00	1638.84	1638.84	1639.53	40.80	9.02	1585.60	1111.57
*	346.000	625.00	.00	.00	1635.50	7100.00	1643.35	1643.35	1643.84	36.19	8.29	2058.30	1180.23
*	346.000	625.00	.00	.00	1635.50	7100.00	1644.29	1644.29	1645.02	37.31	9.17	1642.44	1162.33
*	348.000	425.00	.00	.00	1641.50	7100.00	1645.56	1645.51	1645.92	75.82	8.16	1839.31	815.42
	348.000	425.00	.00	.00	1641.50	7100.00	1646.49	.00	1647.02	64.31	8.83	1474.75	885.34
	350.000	317.00	.00	.00	1641.40	7100.00	1647.13	.00	1647.52	47.02	8.07	1907.37	1035.39
	350.000	317.00	.00	.00	1641.40	7100.00	1648.04	.00	1648.75	56.50	9.66	1395.04	944.54
*	352.000	245.00	.00	.00	1642.85	7100.00	1650.02	1650.02	1650.56	47.69	9.13	1800.43	1028.17
*	352.000	245.00	.00	.00	1642.85	7100.00	1650.90	1650.90	1651.66	46.64	9.87	2442.48	1039.62
*	354.000	477.00	.00	.00	1646.00	7100.00	1653.05	1653.05	1653.78	51.81	8.64	1347.30	986.38
*	354.000	477.00	.00	.00	1646.00	7100.00	1653.89	1653.89	1655.12	60.36	10.06	1011.56	913.87
	356.000	495.00	.00	.00	1649.90	7100.00	1656.18	.00	1656.78	61.16	9.46	1483.48	907.89
	356.000	495.00	.00	.00	1649.90	7100.00	1657.12	.00	1657.56	34.50	7.79	1609.55	1208.82
	358.000	482.00	.00	.00	1655.80	7100.00	1658.56	.00	1658.77	36.69	3.97	1921.74	1141.49
	358.000	482.00	.00	.00	1655.80	7100.00	1659.05	.00	1659.59	63.95	5.93	1197.35	887.83
	359.000	60.00	.00	.00	1653.30	7100.00	1658.67	.00	1659.10	49.67	5.25	1390.28	1007.47
*	359.000	60.00	.00	.00	1653.30	7100.00	1659.49	.00	1659.81	19.69	4.59	1606.52	1599.96

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	359.100	79.00	.00	.00	1655.70	7100.00	1659.17	.00	1659.67	105.58	5.70	1244.80	690.97
	359.100	79.00	.00	.00	1655.70	7100.00	1659.63	.00	1660.05	38.47	5.19	1367.08	1144.70
*	360.000	58.00	.00	.00	1653.80	7100.00	1659.77	.00	1659.86	10.79	2.44	2907.53	2161.18
*	360.000	58.00	.00	.00	1653.80	7100.00	1660.03	.00	1660.18	9.40	3.10	2292.61	2315.89
	361.000	54.00	.00	.00	1654.30	7100.00	1659.82	.00	1659.93	13.65	2.58	2750.09	1921.98
*	361.000	54.00	.00	.00	1654.30	7100.00	1660.02	.00	1660.29	25.09	4.16	1708.18	1417.33
*	362.000	547.00	.00	.00	1659.00	7100.00	1664.66	1664.66	1665.14	91.60	9.62	1558.93	741.85
*	362.000	547.00	.00	.00	1659.00	7100.00	1665.19	1665.19	1665.85	97.27	9.98	1255.52	719.91
*	364.000	551.00	.00	.00	1661.50	7100.00	1667.01	.00	1667.14	18.43	3.82	2554.28	1653.77
*	364.000	551.00	.00	.00	1661.50	7100.00	1667.74	.00	1667.97	19.68	4.56	1891.51	1600.36
*	366.000	460.00	.00	.00	1665.00	7100.00	1668.67	1668.67	1669.19	162.79	8.29	1304.95	556.48
*	366.000	460.00	.00	.00	1665.00	7100.00	1669.21	.00	1669.88	114.64	8.05	1104.68	663.12
*	368.000	440.00	.00	.00	1666.50	7100.00	1670.87	.00	1670.98	17.90	3.62	2789.07	1678.07
*	368.000	440.00	.00	.00	1666.50	7100.00	1671.55	.00	1671.78	22.20	4.63	1809.33	1506.81
	370.000	479.00	.00	.00	1668.00	7100.00	1671.73	.00	1671.82	18.18	3.39	3038.60	1665.27
	370.000	479.00	.00	.00	1668.00	7100.00	1672.62	.00	1672.81	21.67	4.23	2068.58	1525.25
*	372.000	571.00	.00	.00	1669.50	7100.00	1673.54	1673.44	1673.81	111.49	6.60	1821.81	672.41
*	372.000	571.00	.00	.00	1669.50	7100.00	1674.35	.00	1674.74	68.49	6.51	1483.01	857.89
	374.000	414.00	.00	.00	1670.20	7100.00	1674.89	.00	1674.95	11.92	2.56	3579.09	2056.63
*	374.000	414.00	.00	.00	1670.20	7100.00	1675.79	.00	1675.96	15.95	3.30	2153.82	1777.94
*	376.000	492.00	.00	.00	1671.50	7100.00	1676.12	1676.12	1676.57	56.49	7.07	1809.70	944.62
*	376.000	492.00	.00	.00	1671.50	7100.00	1676.76	.00	1677.42	52.39	7.52	1189.29	980.93
	378.000	453.00	.00	.00	1671.70	7100.00	1678.03	1677.98	1678.70	37.56	7.33	1576.57	1158.51
	378.000	453.00	.00	.00	1671.70	7100.00	1678.59	.00	1679.58	39.77	8.06	937.71	1125.81

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
481.000	32.00	.00	.00	1725.20	5993.00	1738.55	.00	1738.87	4.31	4.50	1330.96	2886.54
481.000	32.00	.00	.00	1725.20	5993.00	1738.55	.00	1738.87	4.31	4.50	1330.96	2886.54
482.000	205.00	.00	.00	1725.20	5993.00	1738.61	.00	1738.99	5.84	4.97	1206.42	2479.59
482.000	205.00	.00	.00	1725.20	5993.00	1738.61	.00	1738.99	5.84	4.97	1206.42	2479.59

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Boundary condition: WSEL

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	306.000	7100.00	1572.44	.00	.00	.00	1393.61	.00
	306.000	7100.00	1572.88	.44	.00	.44	478.68	.00
*	308.000	7100.00	1574.18	.00	1.74	.00	878.16	631.00
*	308.000	7100.00	1574.51	.32	1.63	.32	511.33	631.00
*	310.000	7100.00	1576.69	.00	2.51	.00	1813.17	490.00
*	310.000	7100.00	1577.56	.87	3.05	.87	1039.30	490.00
*	312.000	7100.00	1577.84	.00	1.15	.00	1233.51	450.00
*	312.000	7100.00	1578.38	.55	.82	.55	807.40	450.00
*	314.000	7100.00	1579.29	.00	1.45	.00	1131.99	354.00
*	314.000	7100.00	1579.93	.64	1.55	.64	701.30	354.00
*	316.000	7100.00	1581.68	.00	2.39	.00	1364.08	550.00
*	316.000	7100.00	1582.28	.60	2.35	.60	942.61	550.00
*	318.000	7100.00	1587.08	.00	5.40	.00	1906.62	510.00
*	318.000	7100.00	1587.33	.24	5.05	.24	1350.00	510.00
	320.000	7100.00	1588.61	.00	1.52	.00	1870.14	310.00
*	320.000	7100.00	1588.80	.19	1.47	.19	1414.36	310.00
*	322.000	7100.00	1592.74	.00	4.13	.00	1591.80	430.00
*	322.000	7100.00	1592.74	.00	3.94	.00	1470.00	430.00
*	324.000	7100.00	1595.46	.00	2.73	.00	1770.59	490.00
*	324.000	7100.00	1595.47	.00	2.73	.00	1525.00	490.00
*	326.000	7100.00	1598.31	.00	2.85	.00	1886.44	550.00
*	326.000	7100.00	1598.32	.01	2.85	.01	1809.87	550.00
*	328.000	7100.00	1601.18	.00	2.86	.00	1782.86	320.00
*	328.000	7100.00	1601.18	.00	2.86	.00	1782.86	320.00
	330.000	7100.00	1604.23	.00	3.05	.00	1403.30	400.00
	330.000	7100.00	1604.23	.00	3.05	.00	1402.21	400.00
*	332.000	7100.00	1609.62	.00	5.40	.00	822.38	440.00
*	332.000	7100.00	1609.61	-.01	5.39	-.01	819.36	440.00
*	334.000	7100.00	1614.06	.00	4.44	.00	707.61	410.00
*	334.000	7100.00	1614.04	-.01	4.43	-.01	704.46	410.00
*	336.000	7100.00	1617.56	.00	3.50	.00	425.44	440.00
*	336.000	7100.00	1617.56	.00	3.51	.00	425.24	440.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	338.000	7100.00	1628.50	.00	10.94	.00	1277.35	542.00
*	338.000	7100.00	1628.47	-.03	10.92	-.03	1271.52	542.00
*	340.000	7100.00	1629.83	.00	1.33	.00	1098.72	440.00
*	340.000	7100.00	1629.84	.01	1.37	.01	1029.36	440.00
	342.000	7100.00	1632.68	.00	2.85	.00	1139.08	533.00
	342.000	7100.00	1632.68	.00	2.84	.00	1139.07	533.00
*	344.000	7100.00	1638.47	.00	5.79	.00	1533.22	510.00
*	344.000	7100.00	1638.84	.37	6.16	.37	895.00	510.00
*	346.000	7100.00	1643.35	.00	4.88	.00	1822.23	625.00
*	346.000	7100.00	1644.29	.94	5.44	.94	994.29	625.00
*	348.000	7100.00	1645.56	.00	2.22	.00	1806.05	425.00

	348.000	7100.00	1646.49	.93	2.21	.93	840.00	425.00
	350.000	7100.00	1647.13	.00	1.57	.00	1461.26	317.00
	350.000	7100.00	1648.04	.90	1.54	.90	717.13	317.00
*	352.000	7100.00	1650.02	.00	2.89	.00	1381.19	245.00
*	352.000	7100.00	1650.90	.88	2.86	.88	719.66	245.00
*	354.000	7100.00	1653.05	.00	3.03	.00	809.82	477.00
*	354.000	7100.00	1653.89	.84	2.99	.84	431.10	477.00
	356.000	7100.00	1656.18	.00	3.13	.00	958.22	495.00
	356.000	7100.00	1657.12	.94	3.23	.94	670.15	495.00
	358.000	7100.00	1658.56	.00	2.38	.00	1103.84	482.00
	358.000	7100.00	1659.05	.49	1.92	.49	515.53	482.00
	359.000	7100.00	1658.67	.00	.11	.00	1078.54	60.00
*	359.000	7100.00	1659.49	.82	.44	.82	625.00	60.00
*	359.100	7100.00	1659.17	.00	.50	.00	1049.25	79.00
	359.100	7100.00	1659.63	.46	.14	.46	620.00	79.00
*	360.000	7100.00	1659.77	.00	.60	.00	1254.04	58.00
*	360.000	7100.00	1660.03	.26	.39	.26	620.00	58.00
	361.000	7100.00	1659.82	.00	.06	.00	1299.73	54.00
*	361.000	7100.00	1660.02	.20	-.01	.20	620.00	54.00
*	362.000	7100.00	1664.66	.00	4.84	.00	1244.92	547.00
*	362.000	7100.00	1665.19	.53	5.17	.53	724.13	547.00
*	364.000	7100.00	1667.01	.00	2.35	.00	1359.48	551.00
*	364.000	7100.00	1667.74	.74	2.55	.74	605.00	551.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	366.000	7100.00	1668.67	.00	1.66	.00	1181.55	460.00
*	366.000	7100.00	1669.21	.54	1.46	.54	570.00	460.00
	368.000	7100.00	1670.87	.00	2.20	.00	1615.12	440.00
*	368.000	7100.00	1671.55	.68	2.34	.68	640.28	440.00
	370.000	7100.00	1671.73	.00	.86	.00	2018.47	479.00
	370.000	7100.00	1672.62	.89	1.07	.89	769.91	479.00
*	372.000	7100.00	1673.54	.00	1.80	.00	2041.03	571.00
*	372.000	7100.00	1674.35	.82	1.73	.82	837.24	571.00
*	374.000	7100.00	1674.89	.00	1.35	.00	1895.81	414.00
*	374.000	7100.00	1675.79	.90	1.45	.90	667.90	414.00
*	376.000	7100.00	1676.12	.00	1.23	.00	1532.42	492.00
*	376.000	7100.00	1676.76	.64	.97	.64	441.56	492.00
	378.000	7100.00	1678.03	.00	1.91	.00	1283.04	453.00
	378.000	7100.00	1678.59	.57	1.84	.57	236.63	453.00
	380.000	7100.00	1680.05	.00	2.03	.00	376.10	512.00
	380.000	7100.00	1680.66	.61	2.07	.61	162.08	512.00
*	382.000	7100.00	1682.23	.00	2.18	.00	364.00	509.00
*	382.000	7100.00	1682.56	.33	1.90	.33	166.43	509.00
	384.000	7100.00	1683.00	.00	.77	.00	161.86	512.00
	384.000	7100.00	1683.46	.46	.90	.46	161.86	512.00
	386.000	7100.00	1684.09	.00	1.09	.00	164.18	535.00
	386.000	7100.00	1684.35	.26	.89	.26	164.18	535.00
	388.000	7100.00	1685.06	.00	.98	.00	174.22	458.00
	388.000	7100.00	1685.22	.16	.87	.16	174.23	458.00
	390.000	7100.00	1685.70	.00	.63	.00	173.05	532.00
	390.000	7100.00	1685.82	.12	.59	.12	173.05	532.00
	392.000	7100.00	1686.43	.00	.74	.00	169.27	577.00
	392.000	7100.00	1686.52	.08	.70	.08	169.27	577.00
	394.000	7100.00	1687.04	.00	.61	.00	170.92	448.00
	394.000	7100.00	1687.10	.06	.59	.06	170.92	448.00
	396.000	7100.00	1687.86	.00	.81	.00	165.86	507.00
	396.000	7100.00	1687.90	.04	.79	.04	165.86	507.00
*	398.000	7100.00	1688.41	.00	.55	.00	211.90	352.00
*	398.000	7100.00	1688.44	.03	.54	.03	211.90	352.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
. .	400.000	7100.00	1688.36	.00	-.05	.00	124.46	170.00
	400.000	7100.00	1688.39	.03	-.05	.03	124.46	170.00
	400.100	7100.00	1688.80	.00	.44	.00	124.46	88.70
	400.100	7100.00	1688.83	.03	.44	.03	124.46	88.70
	401.000	7100.00	1688.87	.00	.08	.00	203.67	218.00
	401.000	7100.00	1688.91	.03	.08	.03	203.67	218.00
*	402.000	7100.00	1688.66	.00	-.21	.00	167.57	83.00
*	402.000	7100.00	1688.70	.04	-.21	.04	167.56	83.00
*	404.000	7100.00	1688.51	.00	-.15	.00	158.88	252.00
	404.000	7100.00	1688.55	.04	-.15	.04	158.88	252.00
*	406.000	7100.00	1688.52	.00	.01	.00	147.64	370.00
*	406.000	7100.00	1688.52	.01	-.03	.01	147.64	370.00
	408.000	7100.00	1689.15	.00	.64	.00	148.11	303.00
	408.000	7100.00	1689.15	.00	.63	.00	148.11	303.00
*	410.000	7100.00	1690.65	.00	1.50	.00	148.30	318.00
*	410.000	7100.00	1690.65	.00	1.49	.00	148.29	318.00
*	412.000	7100.00	1692.00	.00	1.35	.00	169.98	215.00
*	412.000	7100.00	1692.00	.00	1.35	.00	169.98	215.00
*	414.000	7100.00	1696.29	.00	4.29	.00	103.96	497.00
*	414.000	7100.00	1696.29	.00	4.29	.00	103.96	497.00
*	416.000	7100.00	1699.69	.00	3.40	.00	96.68	353.00
*	416.000	7100.00	1699.69	.00	3.40	.00	96.68	353.00
	418.000	7100.00	1700.61	.00	.92	.00	82.31	274.00
	418.000	7100.00	1700.61	.00	.92	.00	82.31	274.00
*	420.000	7100.00	1704.57	.00	3.96	.00	102.09	570.00
*	420.000	7100.00	1704.57	.00	3.96	.00	102.09	570.00
*	422.000	7100.00	1705.89	.00	1.32	.00	95.33	319.00
*	422.000	7100.00	1705.89	.00	1.32	.00	95.34	319.00
*	424.000	5504.38	1709.90	.00	4.01	.00	276.92	458.00
*	424.000	5993.00	1709.92	.03	4.03	.03	276.92	458.00
*	426.000	5504.38	1710.54	.00	.64	.00	234.85	268.00
*	426.000	5993.00	1710.80	.26	.86	.26	234.84	268.00
*	428.000	5504.38	1713.75	.00	3.21	.00	231.38	485.00
*	428.000	5993.00	1713.95	.20	3.15	.20	231.37	485.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	430.000	5504.38	1714.25	.00	.49	.00	431.49	182.00
*	430.000	5993.00	1714.30	.06	.36	.06	204.12	182.00
*	432.000	5504.38	1715.76	.00	1.51	.00	397.10	565.00
*	432.000	5993.00	1716.35	.59	2.05	.59	397.10	565.00
*	438.000	5504.38	1716.65	.00	.89	.00	149.58	494.00
*	438.000	5993.00	1716.83	.18	.48	.18	149.58	494.00
	439.000	5504.38	1716.65	.00	.00	.00	133.03	28.00
	439.000	5993.00	1716.81	.17	-.02	.17	133.04	28.00
*	439.100	5504.38	1716.67	.00	.02	.00	133.02	1.00
*	439.100	5993.00	1716.90	.22	.08	.22	133.02	1.00
*	440.000	5504.38	1718.46	.00	1.78	.00	131.81	104.00
*	440.000	5993.00	1718.68	.23	1.79	.23	131.80	104.00
*	440.100	5504.38	1719.60	.00	1.15	.00	133.03	1.00
*	440.100	5993.00	1719.89	.28	1.20	.28	133.03	1.00
*	441.000	5504.38	1720.63	.00	1.02	.00	193.70	31.00
*	441.000	5993.00	1720.97	.34	1.08	.34	193.70	31.00
	442.000	5993.00	1721.04	.00	.41	.00	461.91	466.00
	442.000	5993.00	1721.40	.36	.43	.36	461.91	466.00
*	444.000	5993.00	1720.90	.00	-.14	.00	386.58	299.00
*	444.000	5993.00	1721.29	.39	-.11	.39	388.59	299.00
*	446.000	5993.00	1722.25	.00	1.35	.00	175.47	390.00

*	446.000	5993.00	1722.21	-.04	.92	-.04	174.80	390.00
*	448.000	5993.00	1725.23	.00	2.98	.00	215.54	595.00
*	448.000	5993.00	1725.26	.03	3.05	.03	184.60	595.00
	450.000	5993.00	1726.63	.00	1.39	.00	213.44	527.00
	450.000	5993.00	1726.63	.00	1.37	.00	213.15	527.00
	452.000	5993.00	1728.01	.00	1.39	.00	169.75	517.00
	452.000	5993.00	1728.01	.00	1.38	.00	169.75	517.00
	454.000	5993.00	1728.86	.00	.85	.00	159.99	500.00
	454.000	5993.00	1728.86	.00	.85	.00	159.95	500.00
	456.000	5993.00	1729.51	.00	.65	.00	156.26	510.00
	456.000	5993.00	1729.51	.00	.65	.00	156.24	510.00
	458.000	5993.00	1730.53	.00	1.02	.00	153.98	392.00
	458.000	5993.00	1730.53	.00	1.02	.00	153.97	392.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
460.000	5993.00	1731.33	.00	.80	.00	153.38	357.00
460.000	5993.00	1731.33	.00	.80	.00	153.38	357.00
468.000	5993.00	1732.04	.00	.71	.00	141.54	274.00
468.000	5993.00	1732.04	.00	.71	.00	141.53	274.00
468.900	5993.00	1732.19	.00	.15	.00	132.77	47.00
468.900	5993.00	1732.19	.00	.15	.00	132.77	47.00
469.000	5993.00	1732.14	.00	-.05	.00	126.96	1.00
469.000	5993.00	1732.14	.00	-.05	.00	126.96	1.00
470.000	5993.00	1733.05	.00	.91	.00	186.28	109.00
470.000	5993.00	1733.05	.00	.91	.00	186.26	109.00
* 470.100	5993.00	1733.17	.00	.12	.00	198.35	1.00
* 470.100	5993.00	1733.17	.00	.12	.00	198.31	1.00
471.000	5993.00	1733.18	.00	.01	.00	144.03	41.00
471.000	5993.00	1733.18	.00	.01	.00	144.03	41.00
472.000	5993.00	1733.47	.00	.29	.00	116.88	340.00
472.000	5993.00	1733.47	.00	.29	.00	116.88	340.00
474.000	5993.00	1734.33	.00	.87	.00	102.17	392.00
474.000	5993.00	1734.33	.00	.87	.00	102.17	392.00
* 478.000	5993.00	1736.00	.00	1.67	.00	115.93	415.00
* 478.000	5993.00	1736.00	.00	1.67	.00	115.93	415.00
479.100	5993.00	1736.40	.00	.40	.00	147.28	44.00
479.100	5993.00	1736.40	.00	.40	.00	147.28	44.00
* 480.000	5993.00	1738.58	.00	2.18	.00	171.62	102.00
* 480.000	5993.00	1738.58	.00	2.18	.00	171.62	102.00
481.000	5993.00	1738.55	.00	-.02	.00	139.63	32.00
481.000	5993.00	1738.55	.00	-.02	.00	139.63	32.00
482.000	5993.00	1738.61	.00	.05	.00	136.63	205.00
482.000	5993.00	1738.61	.00	.05	.00	136.63	205.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 308.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 308.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 308.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 308.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 308.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 308.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO= 310.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 310.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 312.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 312.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 312.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO= 312.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 314.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

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 CAUTION SECNO=    314.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    314.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    314.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    314.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    314.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    316.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    316.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 CAUTION SECNO=    318.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    318.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    318.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    318.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    318.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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 WARNING SECNO=    320.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 CAUTION SECNO=    322.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    322.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    322.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    322.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    322.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION SECNO=    324.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    324.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    324.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    324.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    324.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION SECNO=    326.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY

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 CAUTION SECNO=    326.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    326.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    326.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    326.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION SECNO=    328.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    328.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    328.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    328.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    328.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    328.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION SECNO=    332.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    332.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    332.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    332.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    332.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION SECNO=    334.000  PROFILE=  1  MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    334.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    334.000  PROFILE=  2  MINIMUM SPECIFIC ENERGY

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 WARNING SECNO=    340.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 CAUTION SECNO=    342.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
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 CAUTION SECNO=    344.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
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 CAUTION SECNO=    344.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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 WARNING SECNO=    348.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 CAUTION SECNO=    362.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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 WARNING SECNO=    364.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 WARNING SECNO=    366.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 WARNING SECNO=    374.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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 WARNING SECNO=    424.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 CAUTION SECNO=    426.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    426.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    426.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    426.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    426.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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 WARNING SECNO=    432.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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 CAUTION SECNO=    439.100  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    439.100  PROFILE=  2  MINIMUM SPECIFIC ENERGY

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 CAUTION SECNO=    440.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    440.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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 WARNING SECNO=    444.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=    446.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    446.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    446.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=    446.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=    446.000  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=    446.000  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=    448.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    448.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    470.100  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    470.100  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    478.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
1
    26JAN99      09:35:00                                                    PAGE   48


 WARNING SECNO=    478.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=    480.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
 WARNING SECNO=    480.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

1
    26JAN99      09:35:00                                                    PAGE   49
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FLOODWAY DATA, Boundary condition: WSEL
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
306.000	479.	2871.	2.5	1572.8	1572.4	.4
308.000	1006.	941.	7.5	1574.5	1574.2	.3
310.000	1057.	1759.	4.0	1577.6	1576.7	.9
312.000	1176.	2221.	3.2	1578.3	1577.8	.5
314.000	1241.	1235.	5.7	1579.9	1579.3	.6
316.000	1196.	2188.	3.2	1582.3	1581.7	.6
318.000	1350.	1823.	3.9	1587.3	1587.1	.2
320.000	1414.	2763.	2.6	1588.8	1588.6	.2
322.000	1470.	2046.	3.5	1592.7	1592.7	.0
324.000	1525.	2101.	3.4	1595.5	1595.5	.0
326.000	1810.	2218.	3.2	1598.3	1598.3	.0
328.000	1783.	2068.	3.4	1601.2	1601.2	.0
330.000	1570.	1816.	3.9	1604.2	1604.2	.0
332.000	1271.	1306.	5.4	1609.6	1609.6	.0
334.000	814.	1361.	5.2	1614.1	1614.1	.0
336.000	515.	957.	7.4	1617.6	1617.6	.0
338.000	1272.	1425.	5.0	1628.5	1628.5	.0
340.000	1029.	1677.	4.2	1629.8	1629.8	.0
342.000	1139.	1614.	4.4	1632.7	1632.7	.0
344.000	895.	1586.	4.5	1638.9	1638.5	.4
346.000	994.	1642.	4.3	1644.2	1643.3	.9
348.000	840.	1475.	4.8	1646.5	1645.6	.9
350.000	717.	1395.	5.1	1648.0	1647.1	.9
352.000	720.	1442.	4.9	1650.9	1650.0	.9
354.000	799.	1012.	7.0	1653.8	1653.0	.8
356.000	670.	1610.	4.4	1657.1	1656.2	.9
358.000	516.	1197.	5.9	1659.1	1658.6	.5
359.000	625.	1607.	4.4	1659.5	1658.7	.8
359.100	620.	1367.	5.2	1659.7	1659.2	.5
360.000	620.	2293.	3.1	1660.1	1659.8	.3
361.000	620.	1708.	4.2	1660.0	1659.8	.2
362.000	724.	1256.	5.7	1665.2	1664.7	.5
364.000	605.	1892.	3.8	1667.7	1667.0	.7
366.000	570.	1105.	6.4	1669.2	1668.7	.5
368.000	640.	1889.	3.8	1671.6	1670.9	.7
370.000	773.	2069.	3.4	1672.6	1671.7	.9
372.000	837.	1483.	4.8	1674.3	1673.5	.8
374.000	668.	2154.	3.3	1675.8	1674.9	.9
376.000	466.	1189.	6.0	1676.7	1676.1	.6
378.000	286.	938.	7.6	1678.6	1678.0	.6
380.000	162.	842.	8.4	1680.7	1680.1	.6
382.000	166.	1120.	6.3	1682.5	1682.2	.3

1

FLOODWAY DATA, Boundary condition: WSEL
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
384.000	162.	1150.	6.2	1683.5	1683.0	.5
386.000	164.	1096.	6.5	1684.4	1684.1	.3
388.000	174.	1327.	5.3	1685.3	1685.1	.2
390.000	173.	1283.	5.5	1685.8	1685.7	.1
392.000	169.	1254.	5.7	1686.5	1686.4	.1
394.000	171.	1182.	6.0	1687.1	1687.0	.1
396.000	166.	1151.	6.2	1687.9	1687.9	.0
398.000	212.	1907.	3.7	1688.4	1688.4	.0
400.000	124.	1504.	4.7	1688.4	1688.4	.0
400.100	124.	1503.	4.7	1688.8	1688.8	.0
401.000	204.	1625.	4.4	1688.9	1688.9	.0
402.000	168.	1126.	6.3	1688.7	1688.7	.0
404.000	159.	890.	8.0	1688.5	1688.5	.0
406.000	148.	613.	11.6	1688.5	1688.5	.0
408.000	148.	613.	11.6	1689.2	1689.2	.0
410.000	148.	612.	11.6	1690.6	1690.6	.0
412.000	170.	839.	8.5	1692.0	1692.0	.0
414.000	104.	546.	13.0	1696.3	1696.3	.0
416.000	92.	701.	10.1	1699.7	1699.7	.0
418.000	82.	569.	12.5	1700.6	1700.6	.0
420.000	102.	752.	9.4	1704.6	1704.6	.0
422.000	95.	537.	13.2	1705.9	1705.9	.0
424.000	277.	1429.	4.2	1709.9	1709.9	.0
426.000	235.	659.	9.1	1710.8	1710.5	.3
428.000	231.	1038.	5.8	1714.0	1713.8	.2
430.000	204.	748.	8.0	1714.3	1714.2	.1

432.000	397.	1272.	4.7	1716.4	1715.8	.6
438.000	150.	601.	10.0	1716.8	1716.6	.2
439.000	133.	549.	10.9	1716.8	1716.6	.2
439.100	133.	520.	11.5	1716.9	1716.7	.2
440.000	132.	518.	11.6	1718.7	1718.5	.2
440.100	133.	694.	8.6	1719.9	1719.6	.3
441.000	194.	1264.	4.7	1720.9	1720.6	.3
442.000	462.	1785.	3.4	1721.4	1721.0	.4
444.000	389.	1021.	5.9	1721.3	1720.9	.4
446.000	175.	568.	10.5	1722.3	1722.3	.0
448.000	185.	750.	8.0	1725.2	1725.2	.0
450.000	213.	749.	8.0	1726.6	1726.6	.0
452.000	170.	840.	7.1	1728.0	1728.0	.0
454.000	160.	897.	6.7	1728.9	1728.9	.0
456.000	156.	827.	7.2	1729.5	1729.5	.0
458.000	154.	1007.	6.0	1730.5	1730.5	.0

1

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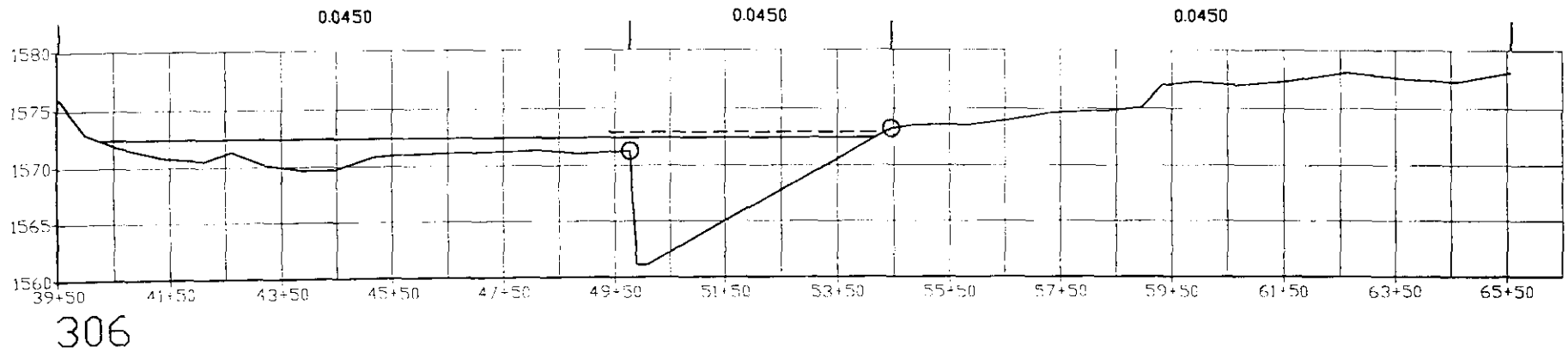
FLOODWAY DATA, Boundary condition: WSEL
PROFILE NO. 2

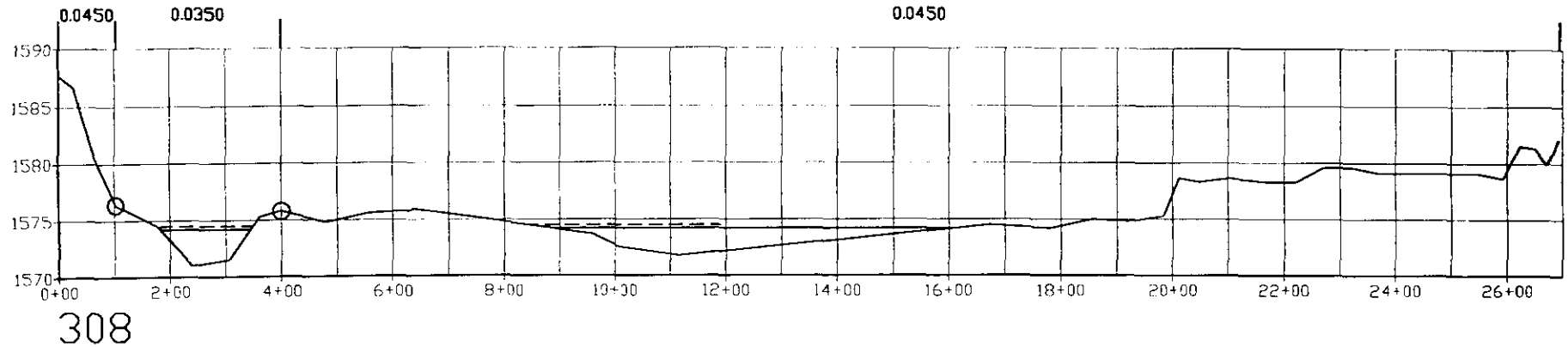
STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
460.000	153.	953.	6.3	1731.3	1731.3	.0
466.000	142.	867.	6.9	1732.0	1732.0	.0
468.900	136.	870.	6.9	1732.2	1732.2	.0
469.000	127.	816.	7.3	1732.1	1732.1	.0
470.000	186.	980.	6.1	1733.1	1733.1	.0
470.100	198.	1076.	5.6	1733.2	1733.2	.0
471.000	144.	964.	6.2	1733.2	1733.2	.0
472.000	117.	748.	8.0	1733.5	1733.5	.0
474.000	102.	637.	9.4	1734.3	1734.3	.0
478.000	116.	866.	6.9	1736.0	1736.0	.0
479.100	147.	1086.	5.5	1736.4	1736.4	.0
480.000	172.	1519.	3.9	1738.6	1738.6	.0
481.000	140.	1331.	4.5	1738.6	1738.6	.0
482.000	137.	1206.	5.0	1738.6	1738.6	.0



306

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1572.88 ft

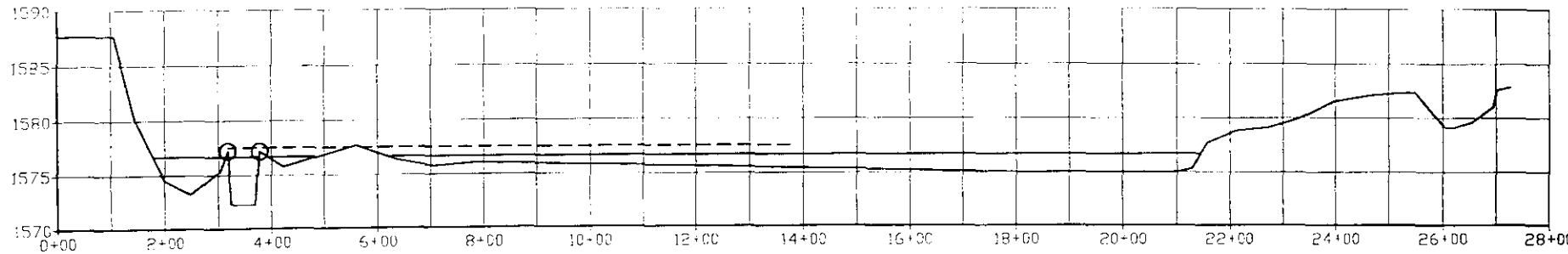
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1572.44 ft



308

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1574.50 ft

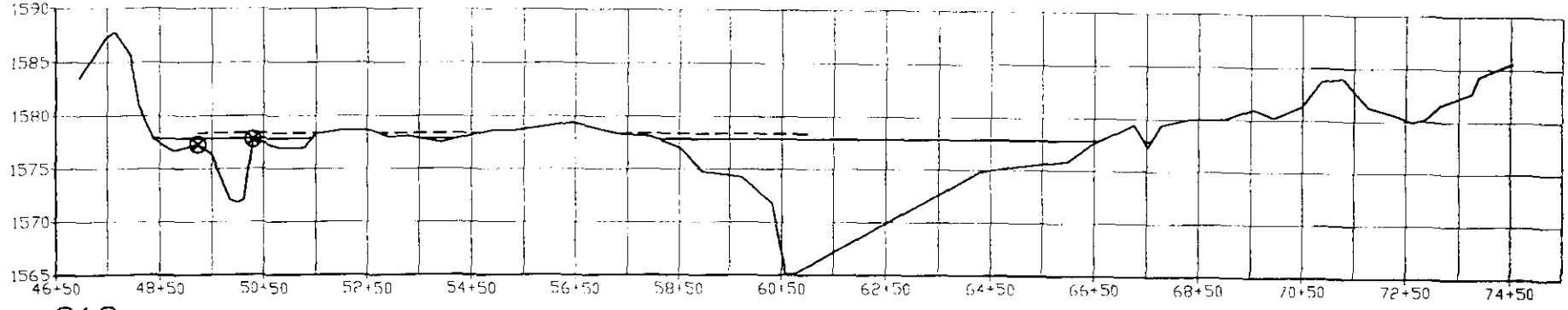
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1574.18 ft



310

Profile 2
Flow Discharge = 7100.00 cfs
– – – FLOODWAY WSEL = 1577.56 ft

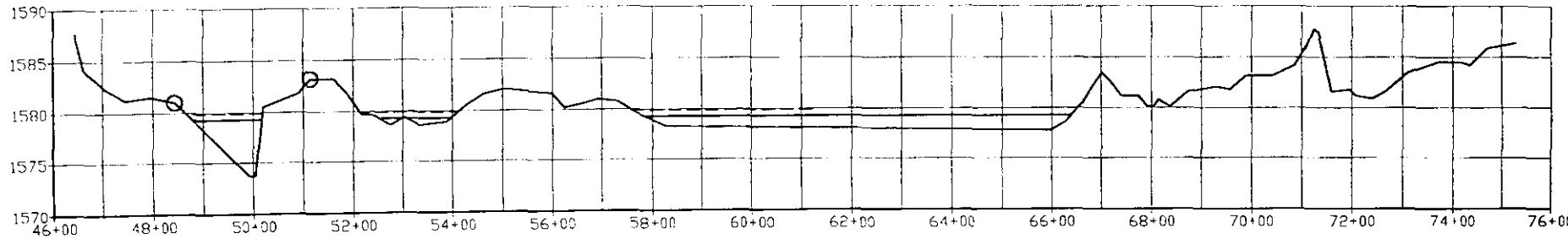
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1576.68 ft



312

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1578.38 ft

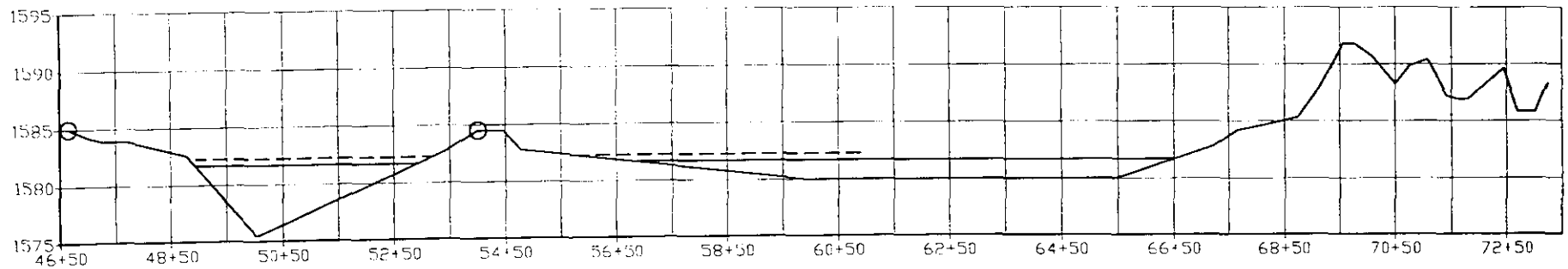
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1577.83 ft



314

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1579.92 ft

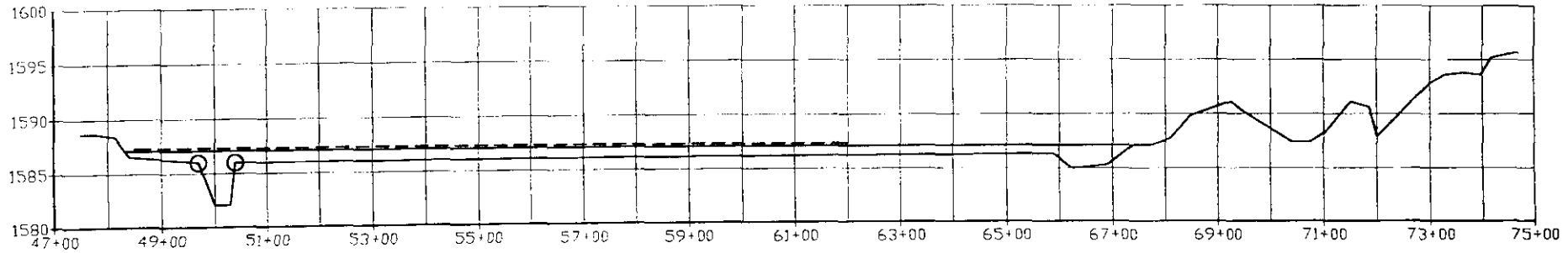
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1579.28 ft



316

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1582.28 ft

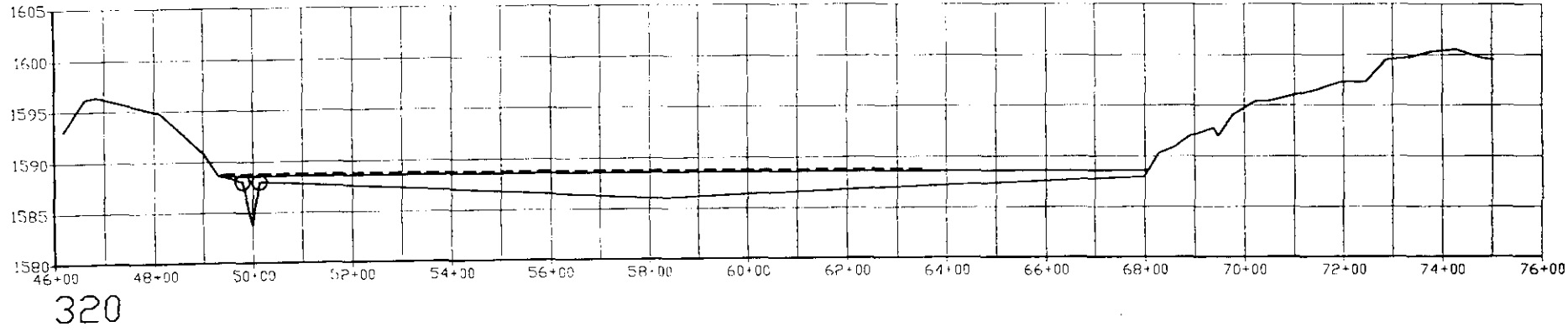
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1581.68 ft



318

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1587.32 ft

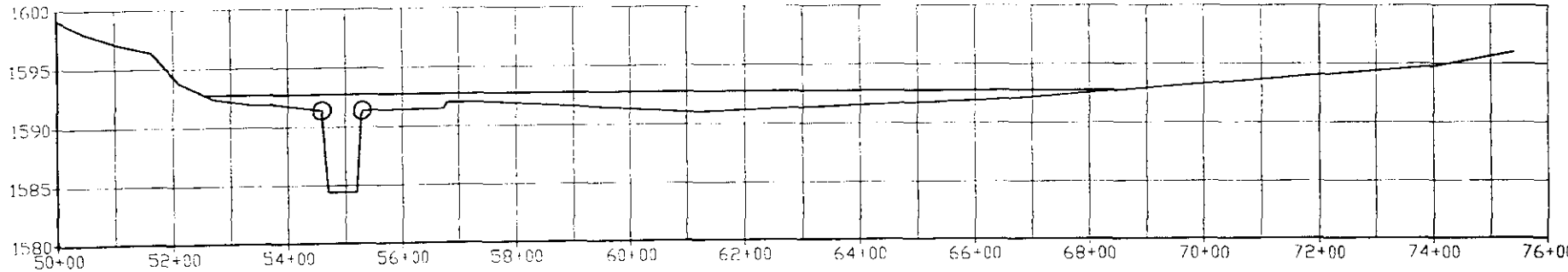
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1587.08 ft



320

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1588.79 ft

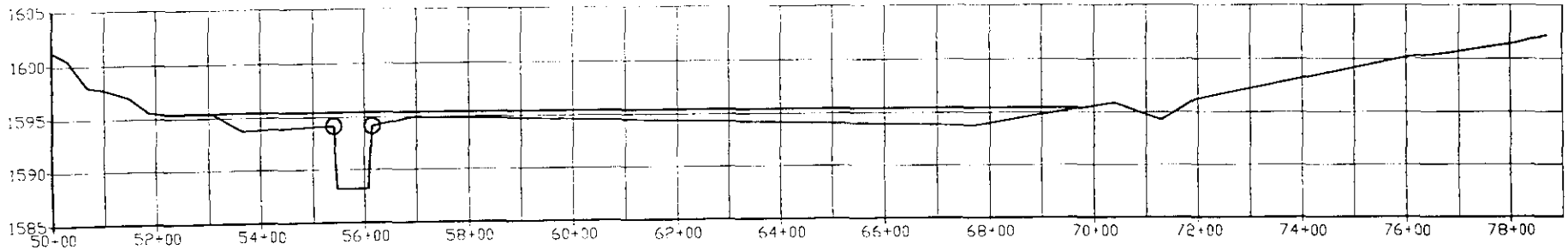
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1588.60 ft



322

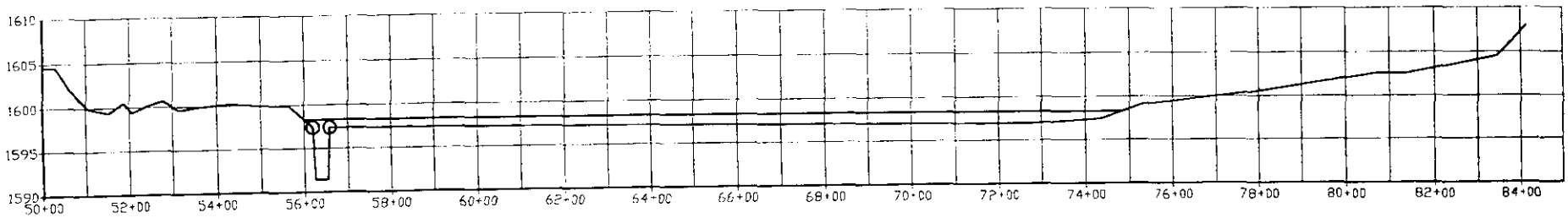
Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1592.74 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1592.73 ft



Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1595.46 ft

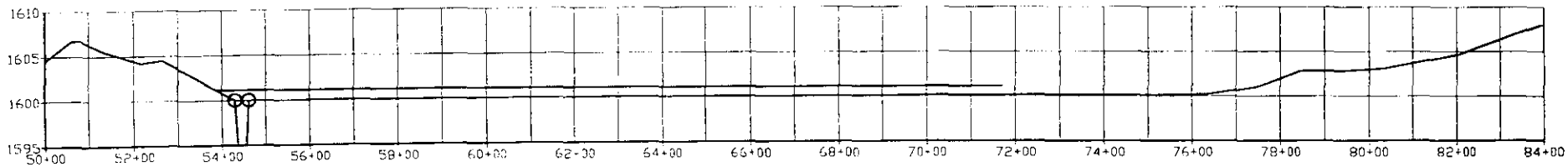
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1595.46 ft



326

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1598.32 Ft

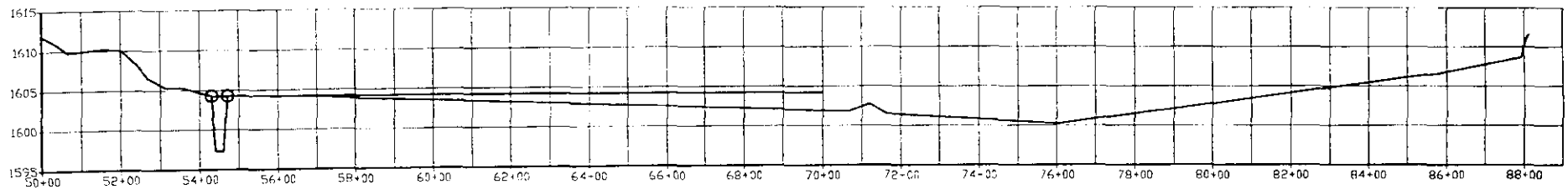
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1598.31 Ft



328

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1601.17 ft

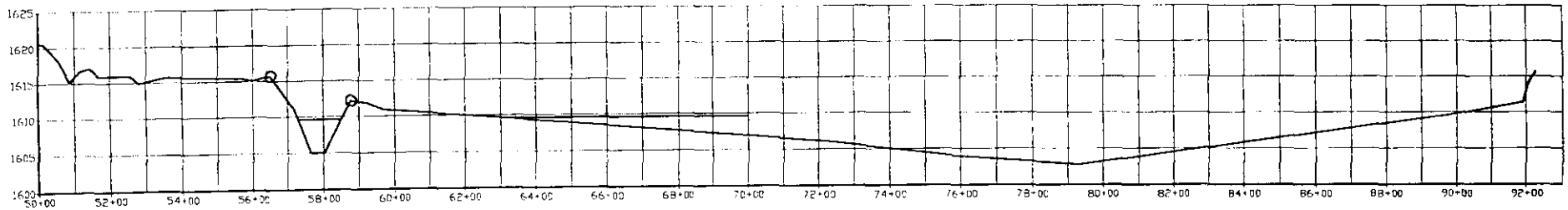
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1601.17 ft



330

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1604.22 ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1604.22 Ft

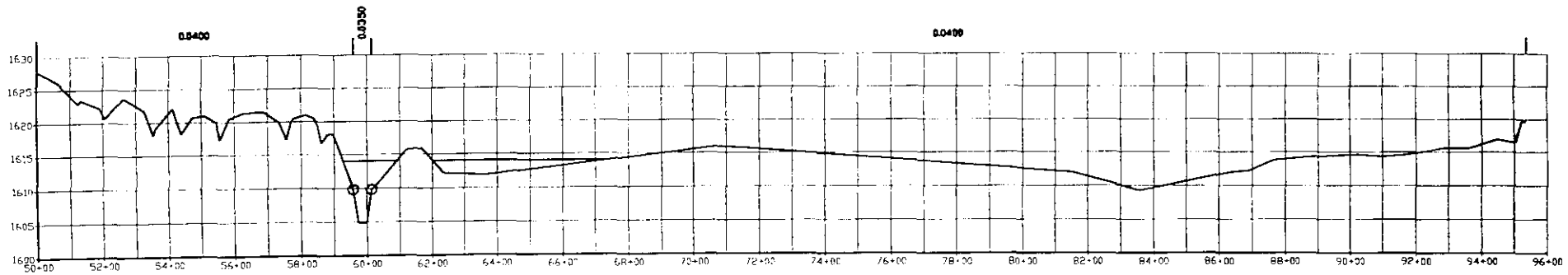


332

Attempts were made to remove .01' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to comptational shortcomings of HEC-2 computer program.

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1609.61 Ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1609.62 Ft

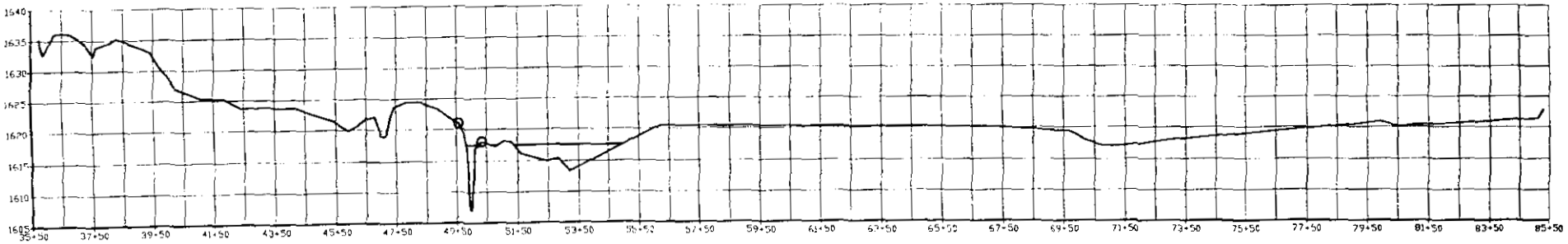


334

Attempts were made to remove .01' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to comptational shortcomings of HEC-2 computer program.

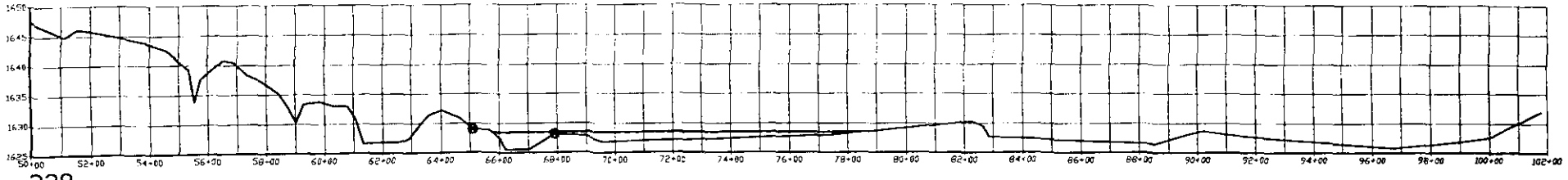
Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1614.04 Ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1614.05 Ft



Profile 2
Flow Discharge = 7100.00 cfs
--- FLOODWAY WSEL = 1617.35 Ft

Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL UNENCROACHED = 1617.36 Ft

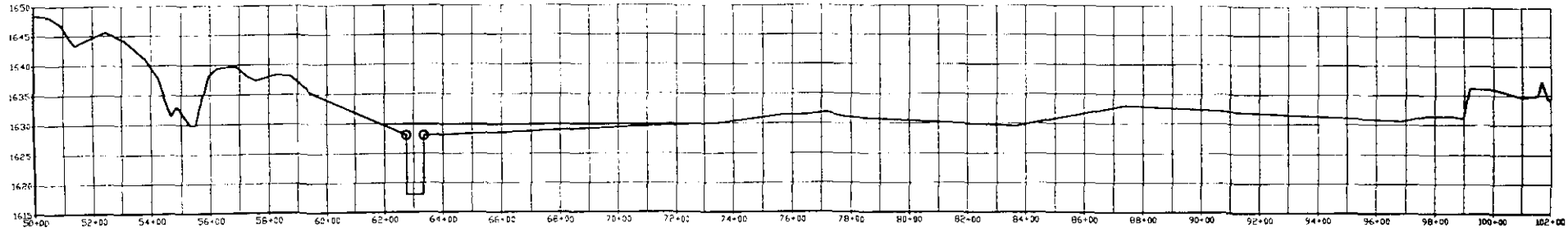


338

Attempts were made to remove .02' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to computational shortcomings of HEC-2 computer program.

Profile 2
Flow Discharge = 7100.00 cfs
--- FLOODWAY WSEL = 1628.47 ft

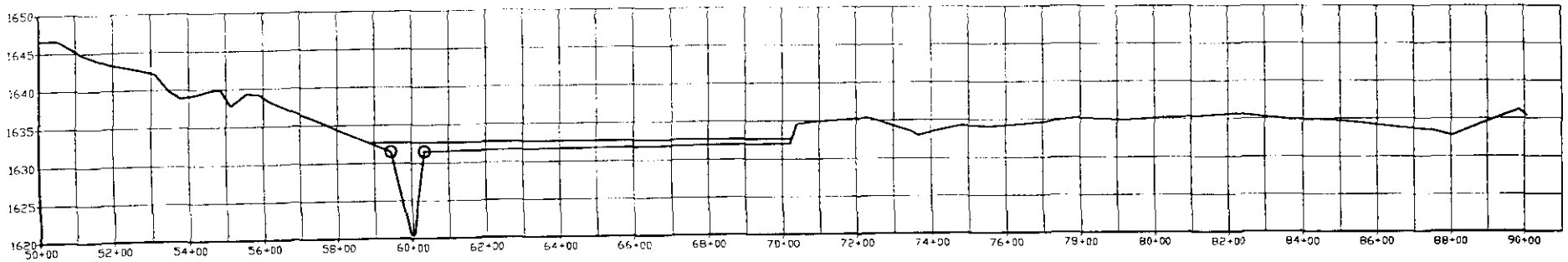
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1628.50 ft



340

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1629.84 ft

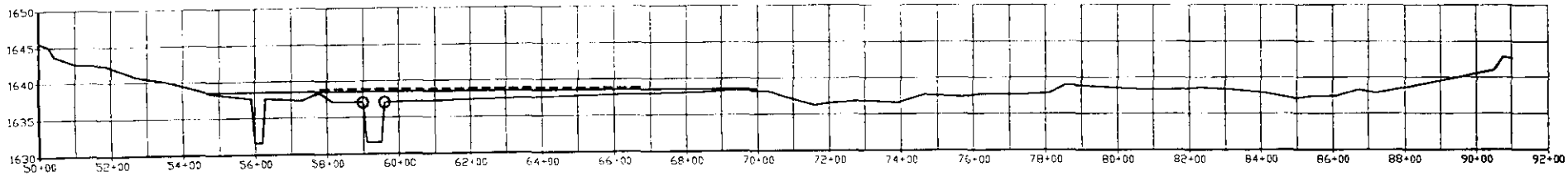
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1629.83 ft



342

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1632.68 Ft

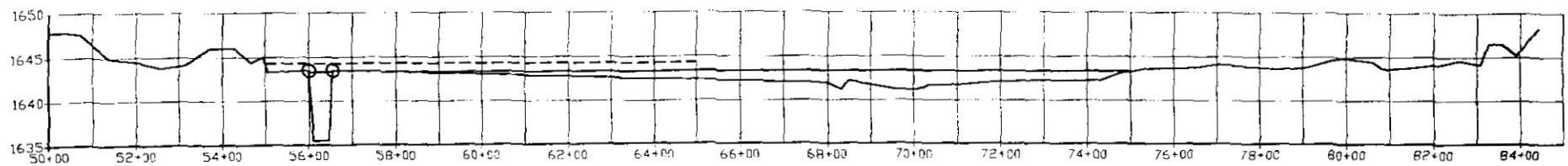
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1632.68 Ft



344

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1638.84 ft

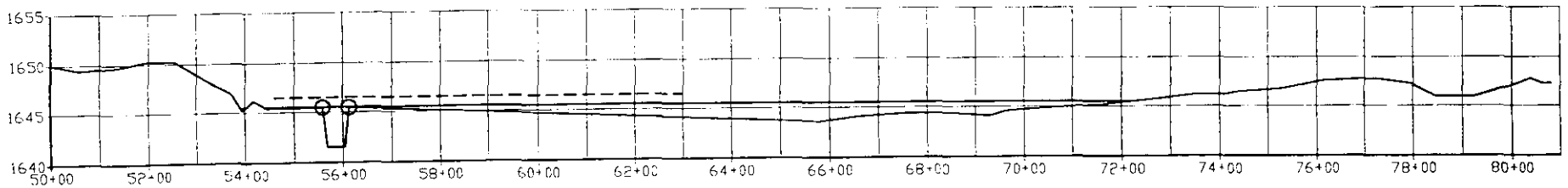
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1638.47 ft



346

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1644.28 ft

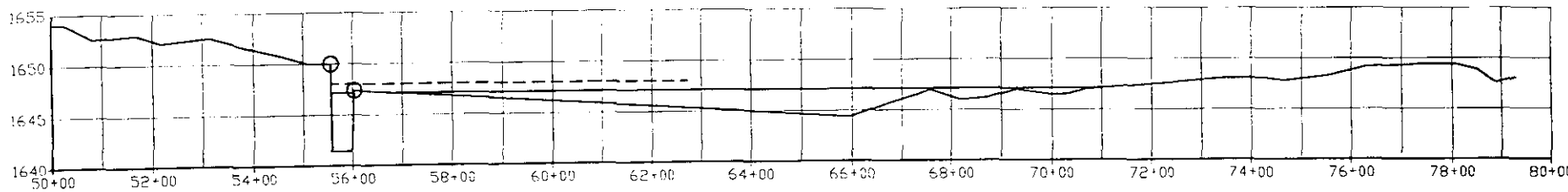
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1643.34 ft



348

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1646.49 ft

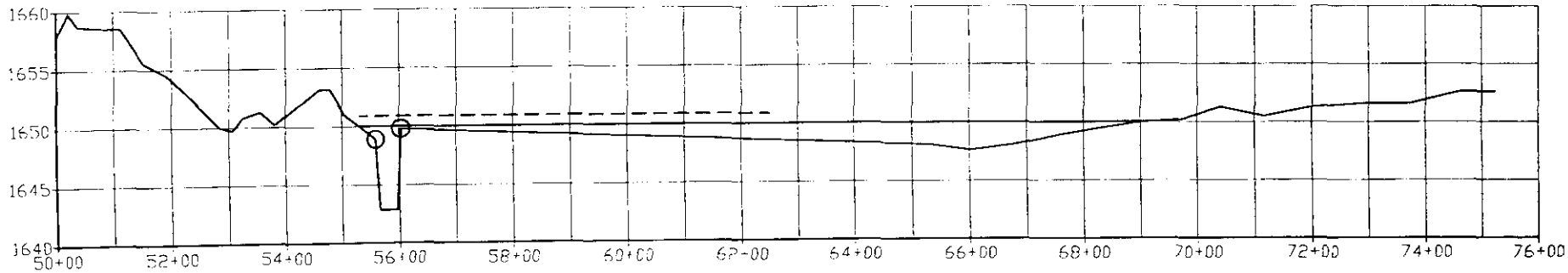
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1645.56 ft



350

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1648.03 ft

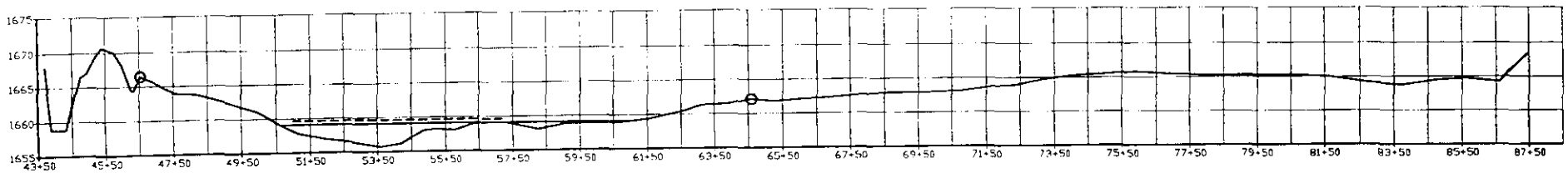
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1647.13 ft



352

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1650.89 ft

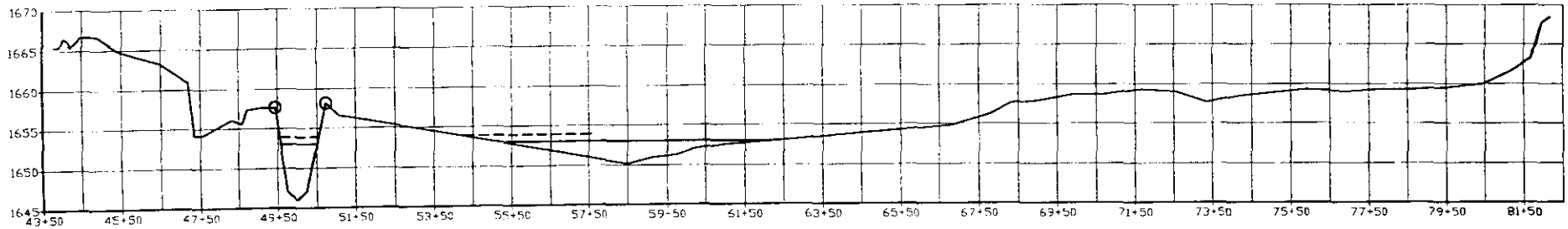
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1650.02 ft



359.1

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1659.63 Ft

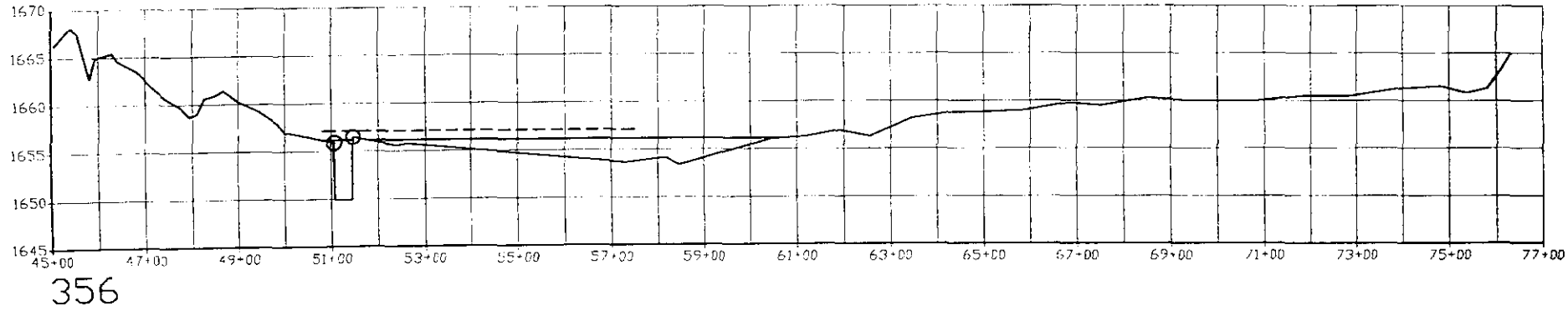
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1659.16 Ft



354

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1653.89 Ft

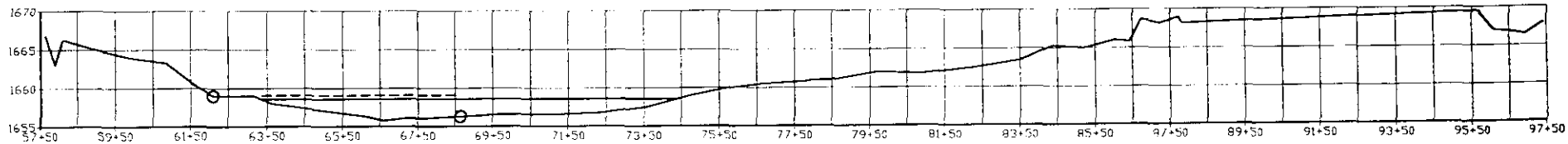
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1653.85 Ft



356

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1657.12 ft

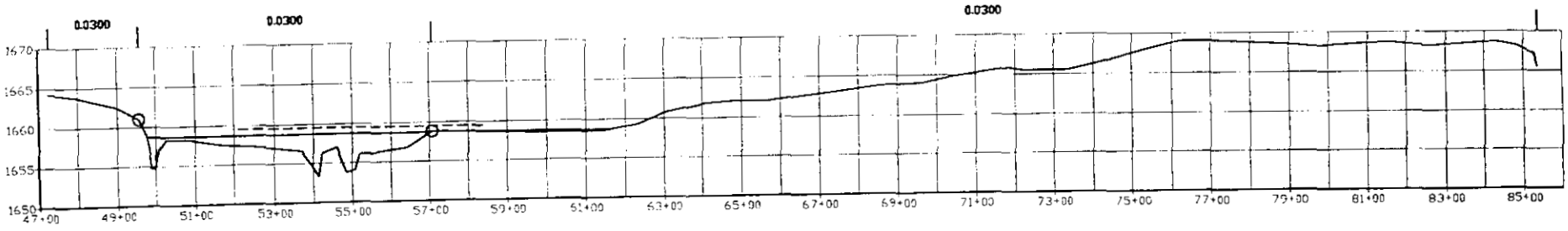
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1656.17 ft



358

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1659.04 ft

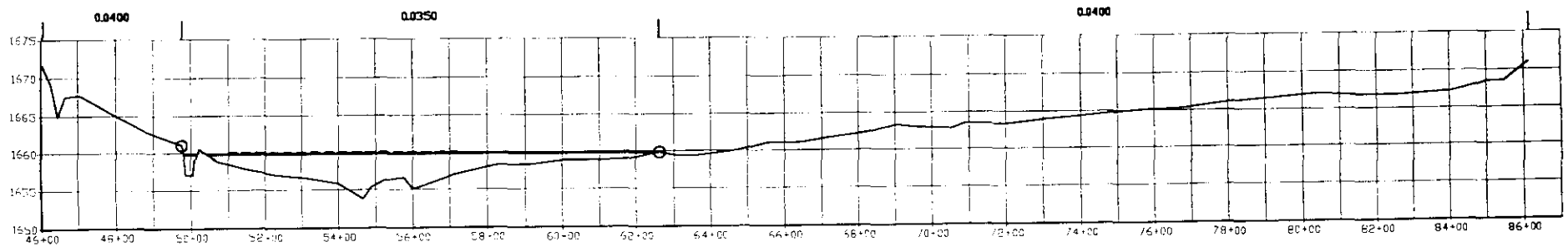
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1658.55 ft



359

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1659.49 ft

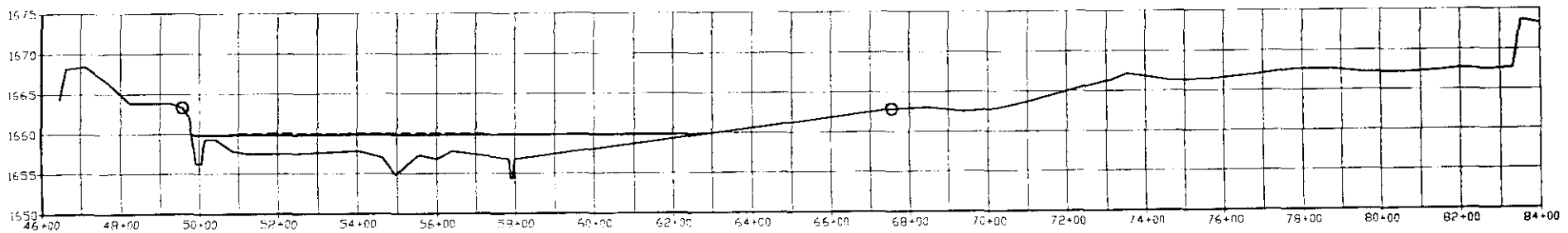
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1658.67 ft



360

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1660.02 Ft

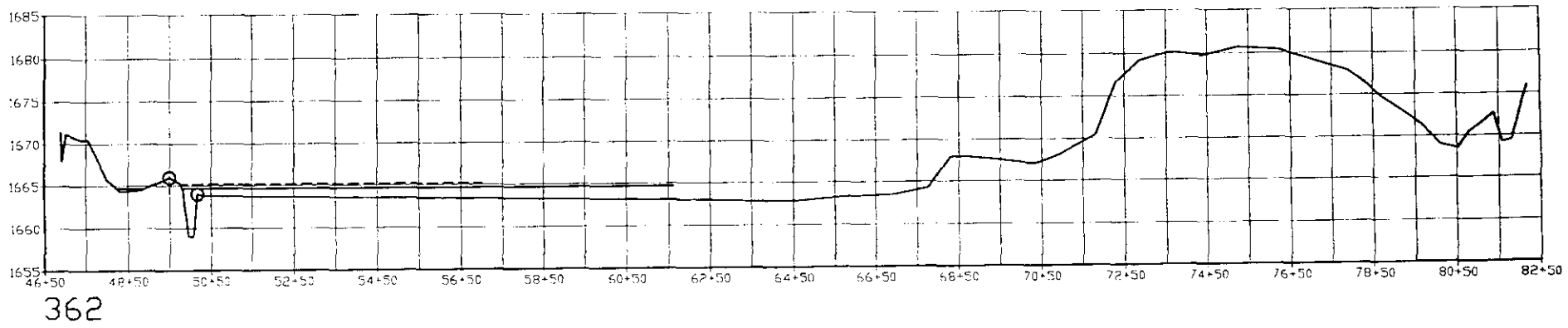
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1659.76 Ft



361

Profile 2
Flow Discharge = 7100.00 cfs
--- FLOODWAY WSEL = 1660.02 ft

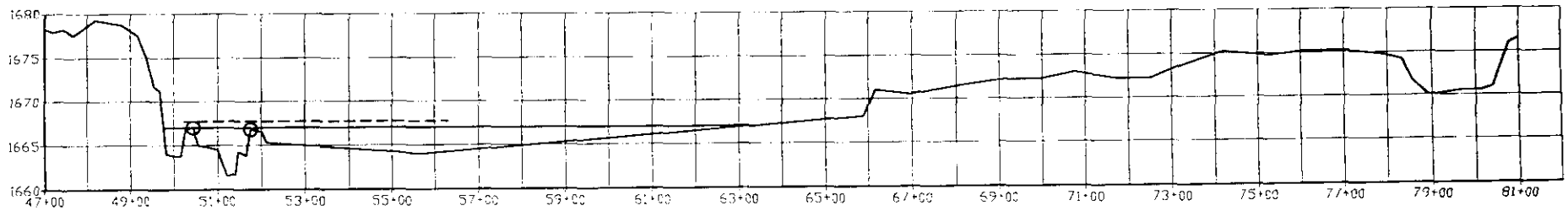
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1659.82 ft



362

Profile 2
Flow Discharge = 7100.00 cFs
- - - FLOODWAY WSEL = 1665.19 ft

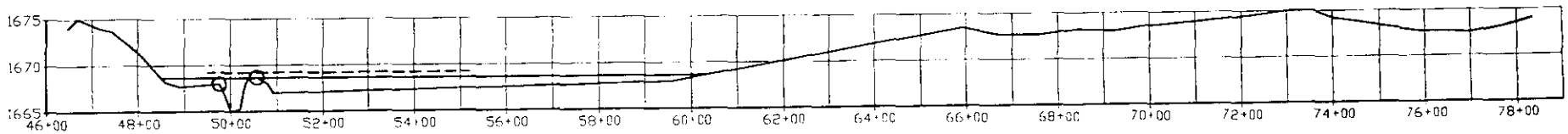
Profile 3
Flow Discharge = 7100.00 cFs
—— 100-YEAR WSEL, UNENCROACHED = 1664.66 ft



364

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1667.74 Ft

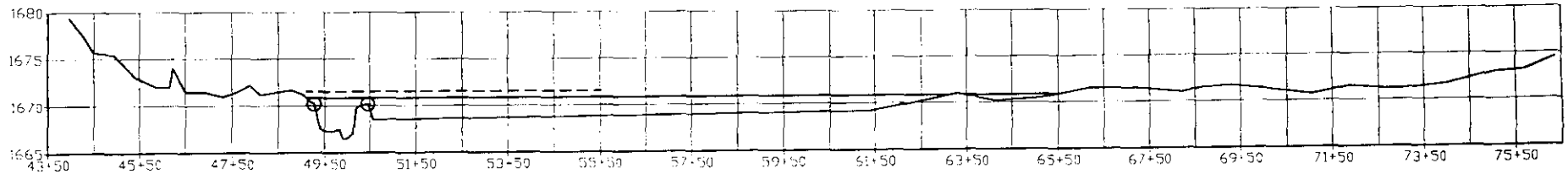
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1667.00 Ft



366

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1669.20 ft

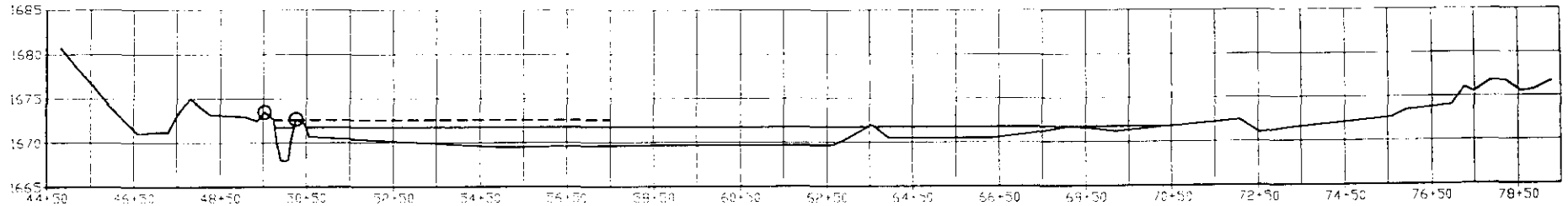
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1668.67 ft



368

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1671.55 ft

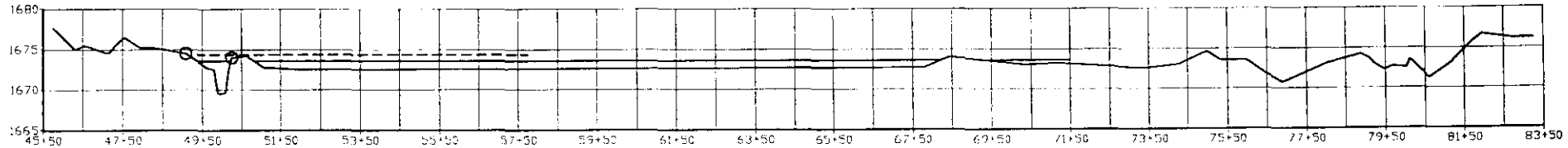
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1670.87 ft



370

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1672.62 Ft

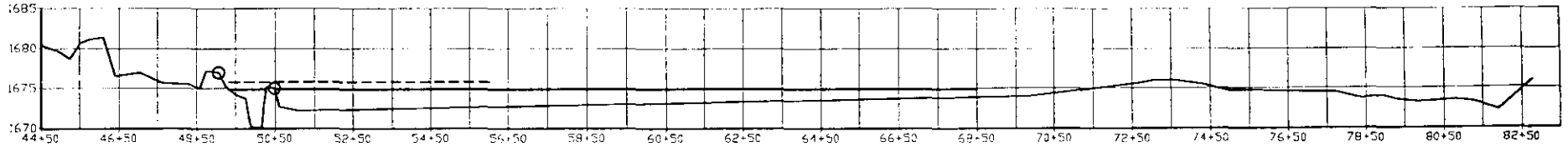
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1671.73 Ft



372

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1674.35 ft

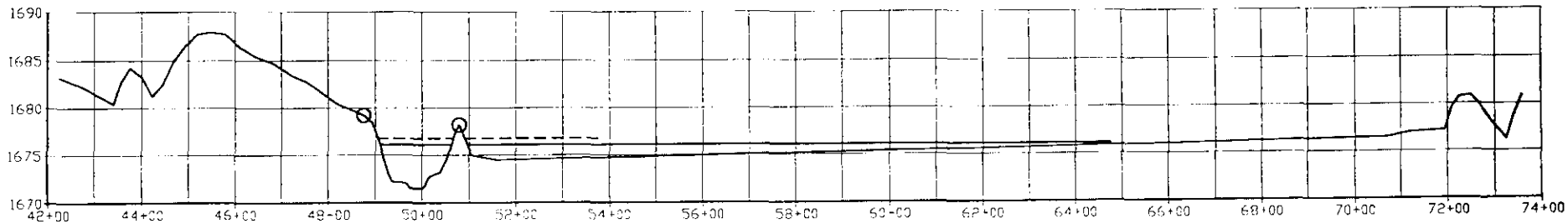
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1673.53 ft



374

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1675.78 ft

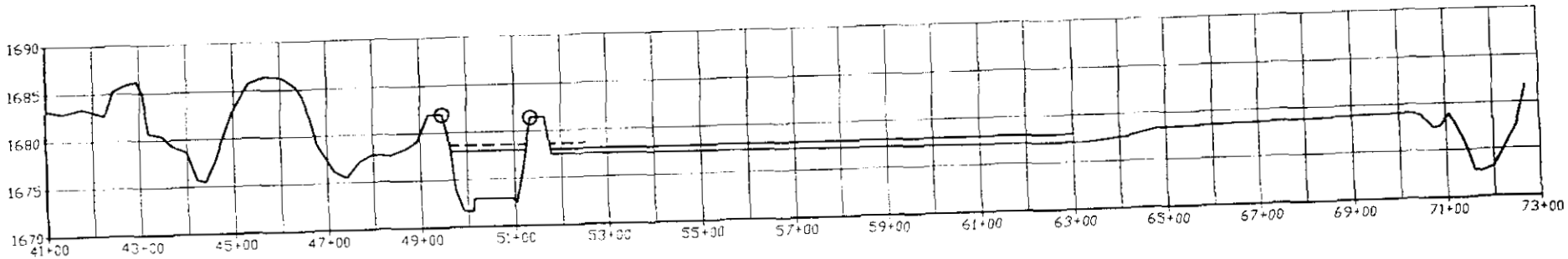
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1674.88 ft



376

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1676.75 ft

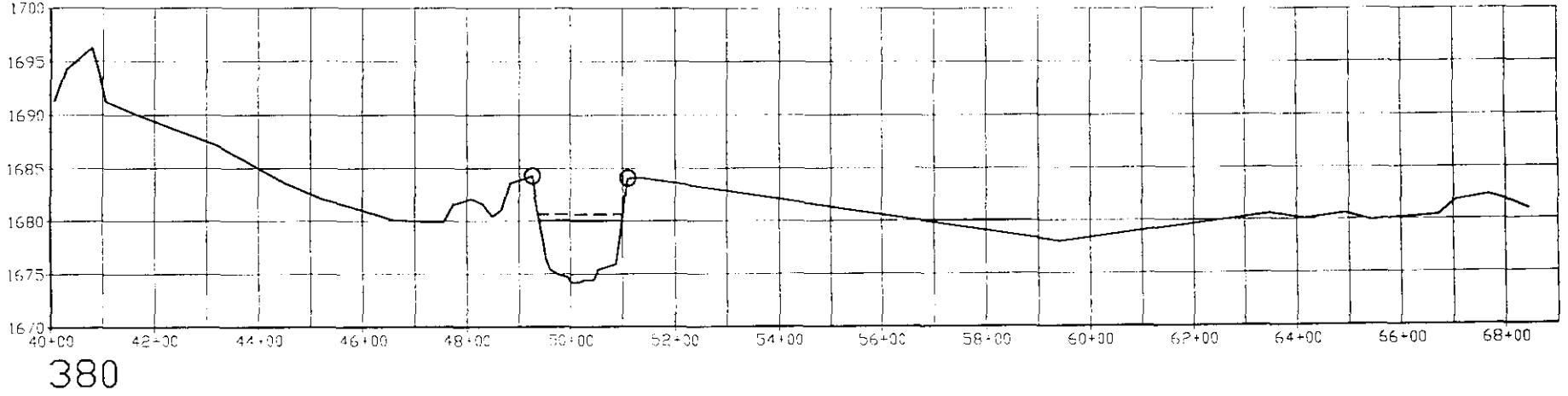
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1676.11 ft



378

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1678.59 ft

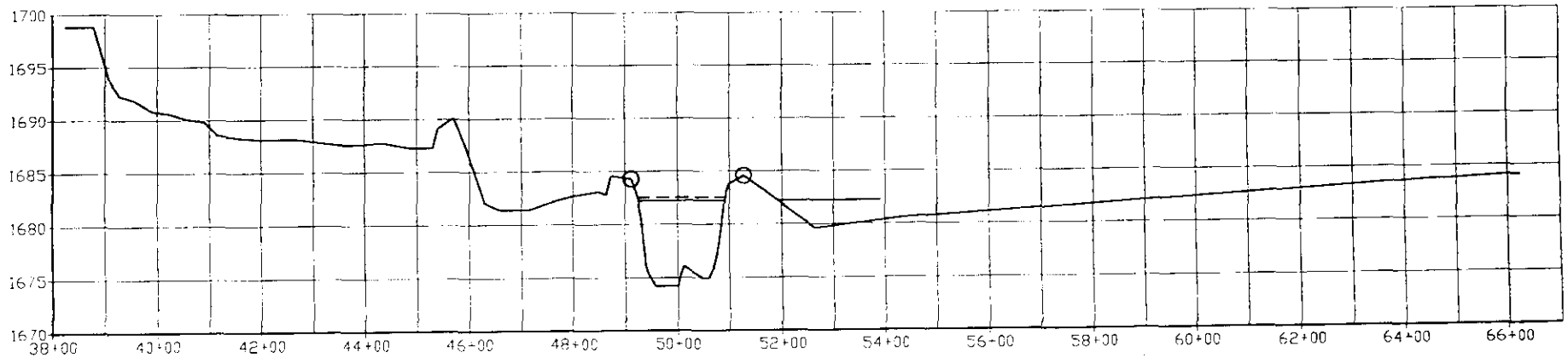
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1678.02 ft



380

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1680.66 ft

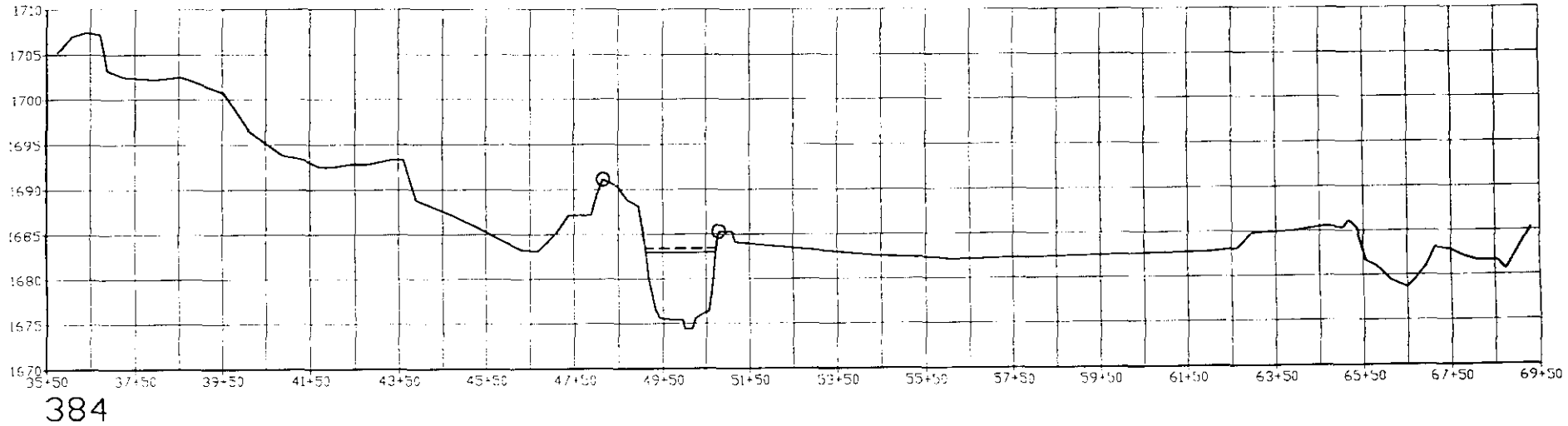
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1680.05 ft



382

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1682.56 ft

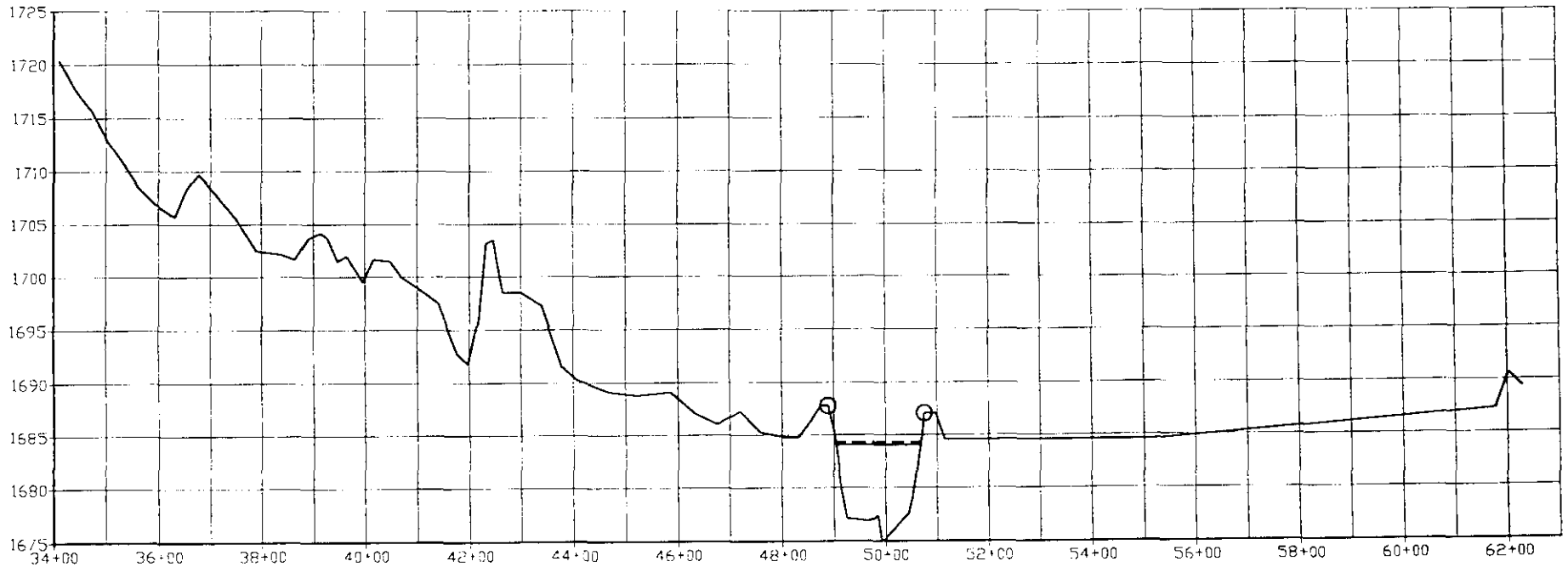
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1682.23 ft



384

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1683.46 ft

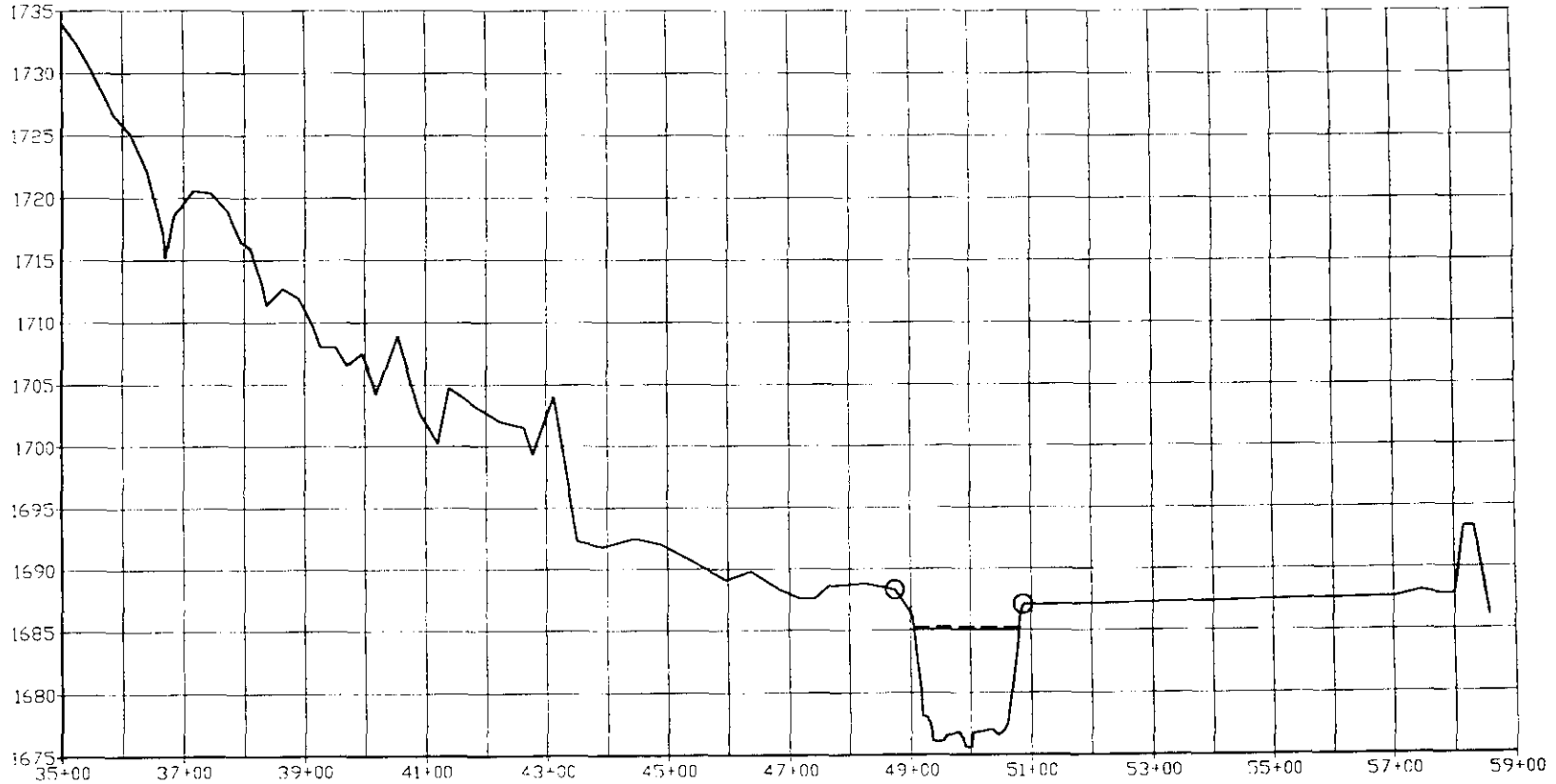
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1682.99 ft



386

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1684.35 ft

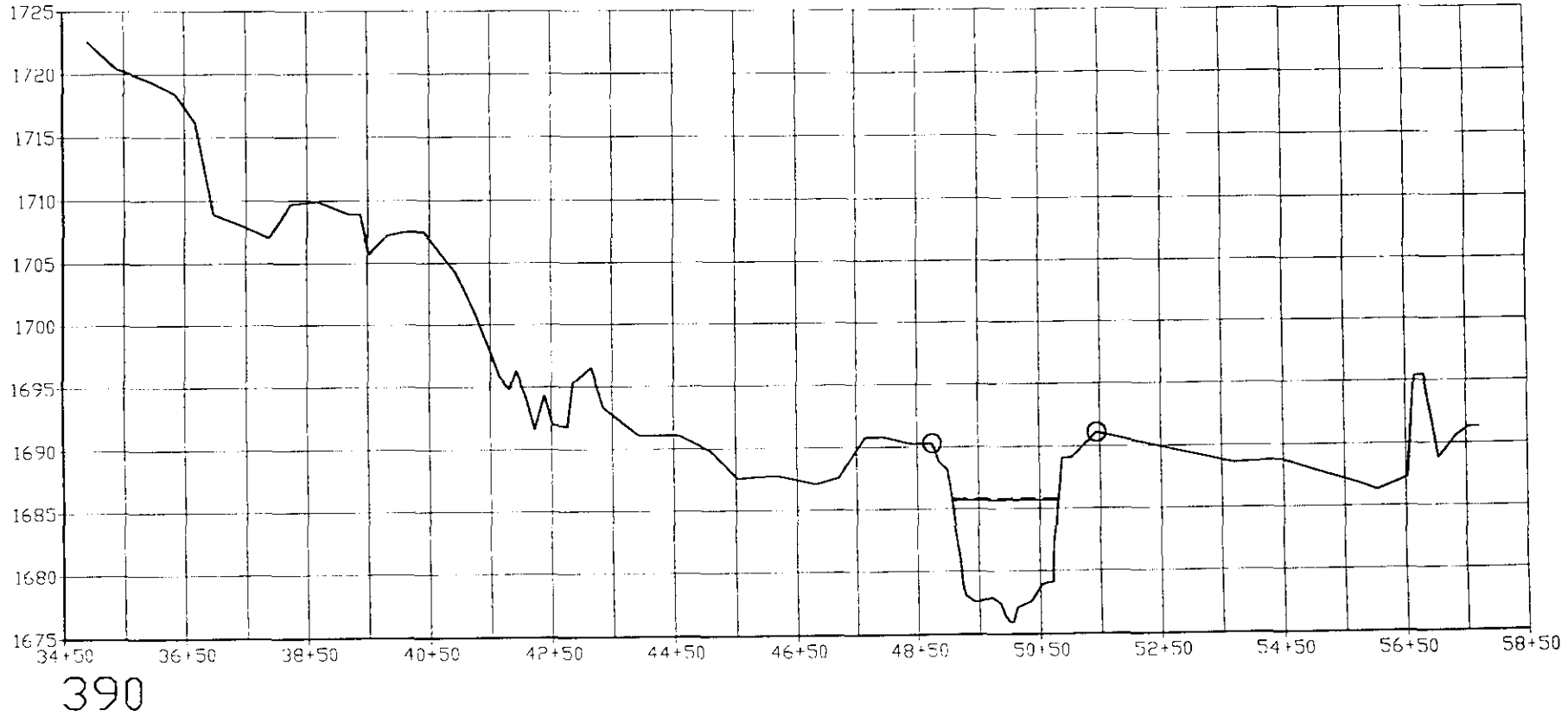
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1684.08 ft



388

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1685.22 ft

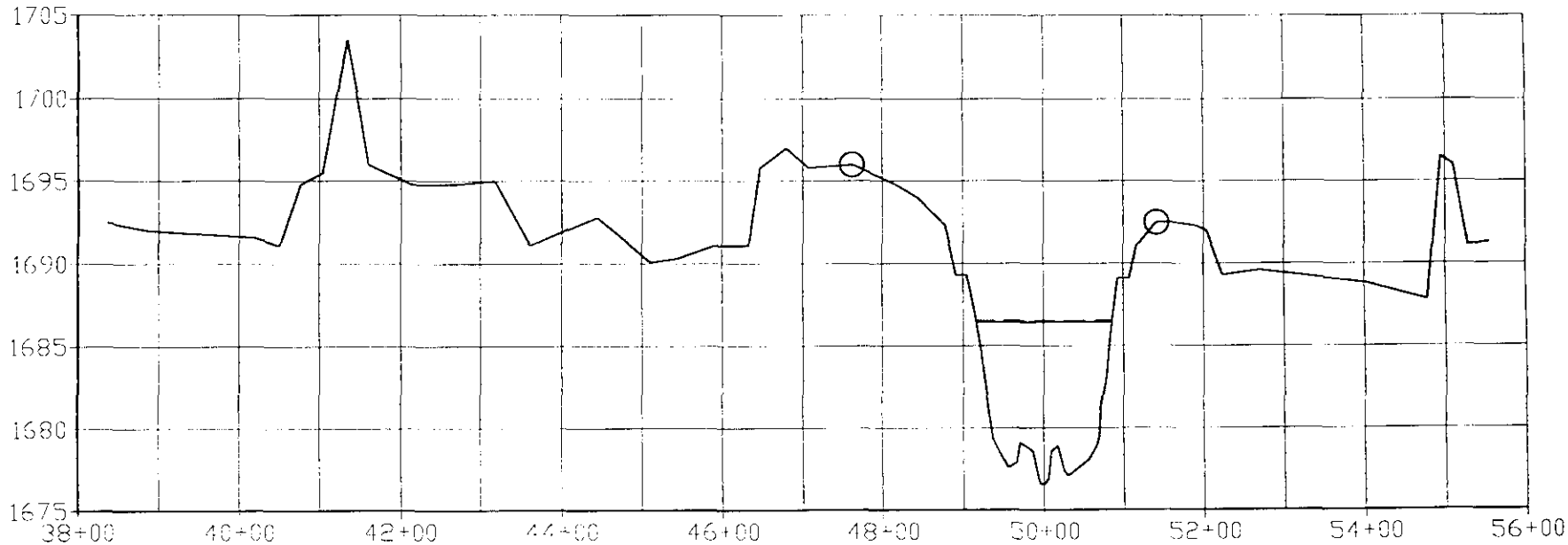
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1685.06 ft



390

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1685.81 ft

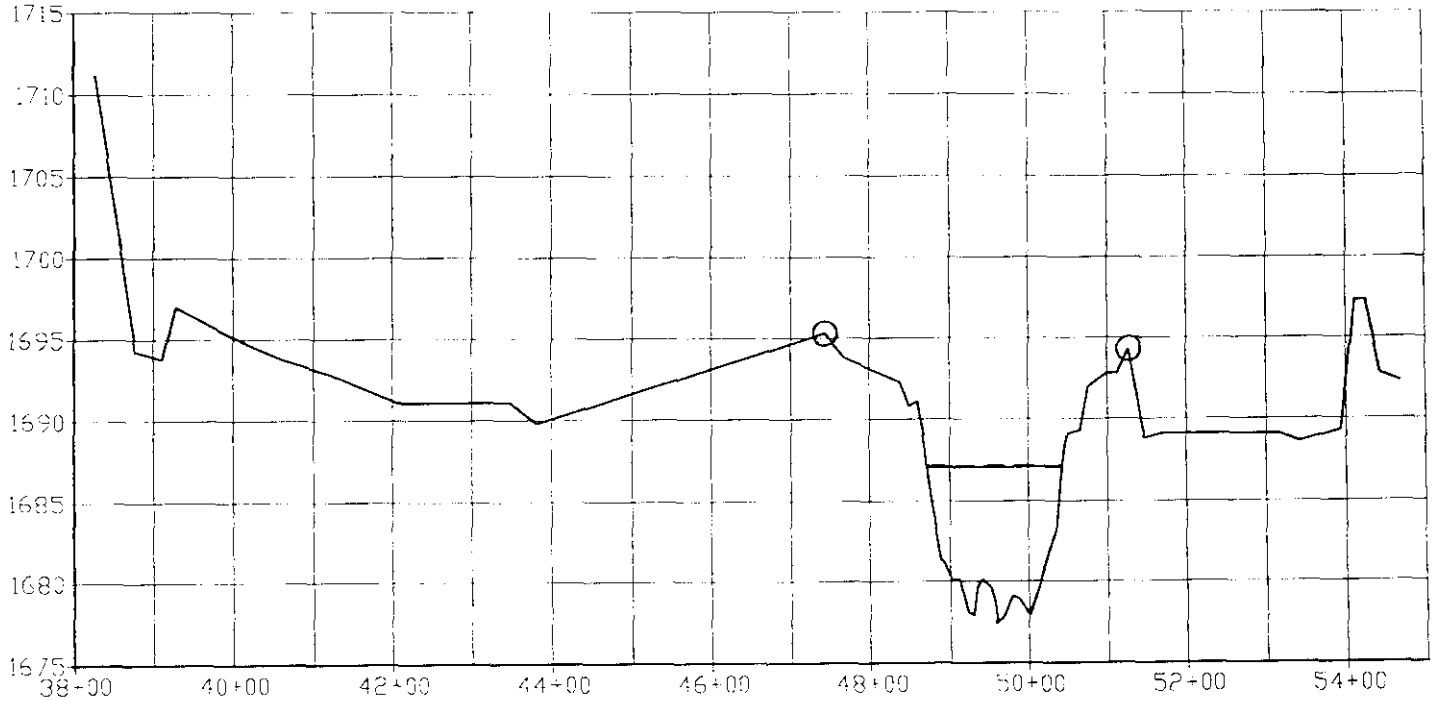
Profile 3
Flow Discharge = 7100.00 cfs
—— 100-YEAR WSEL, UNENCROACHED = 1685.69 ft



392

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1686.51 ft

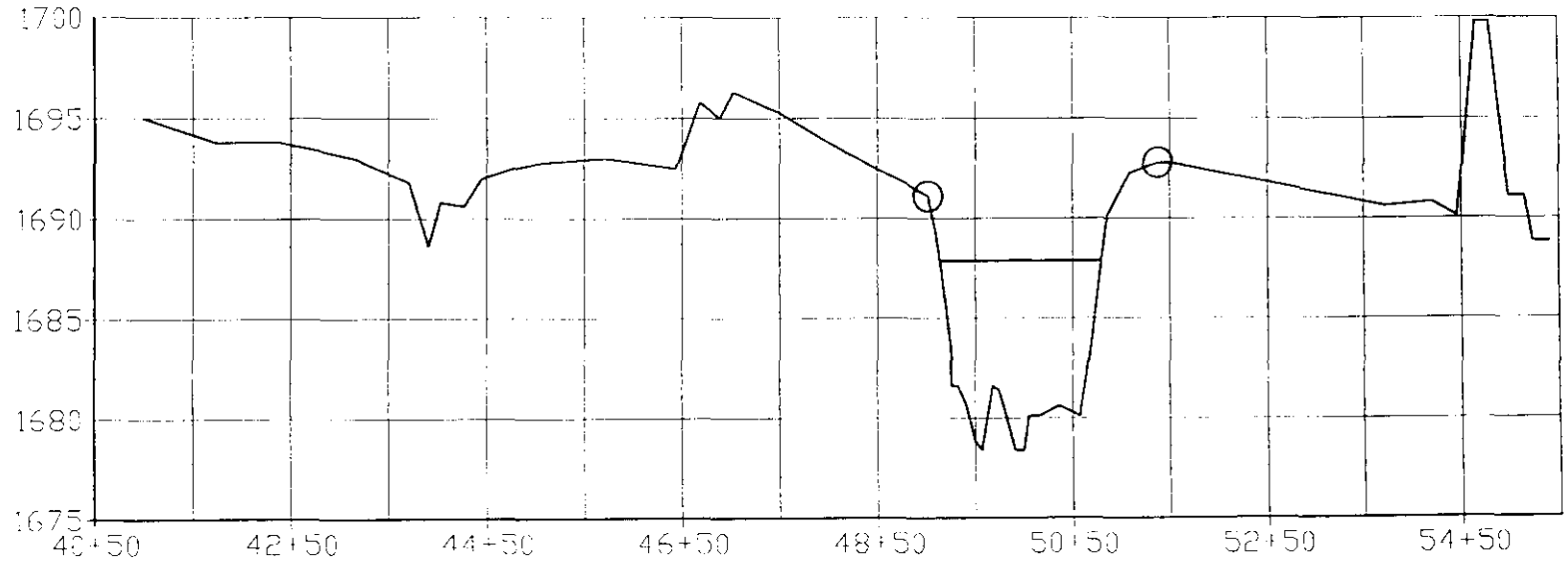
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1686.43 ft



394

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1687.10 ft

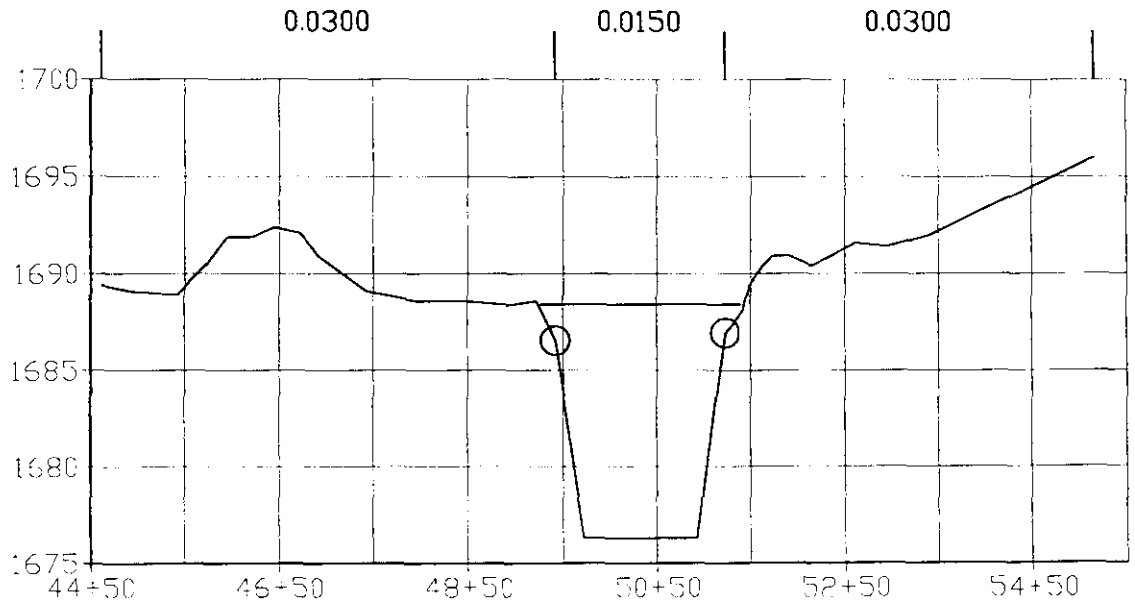
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1687.04 ft



396

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1687.89 ft

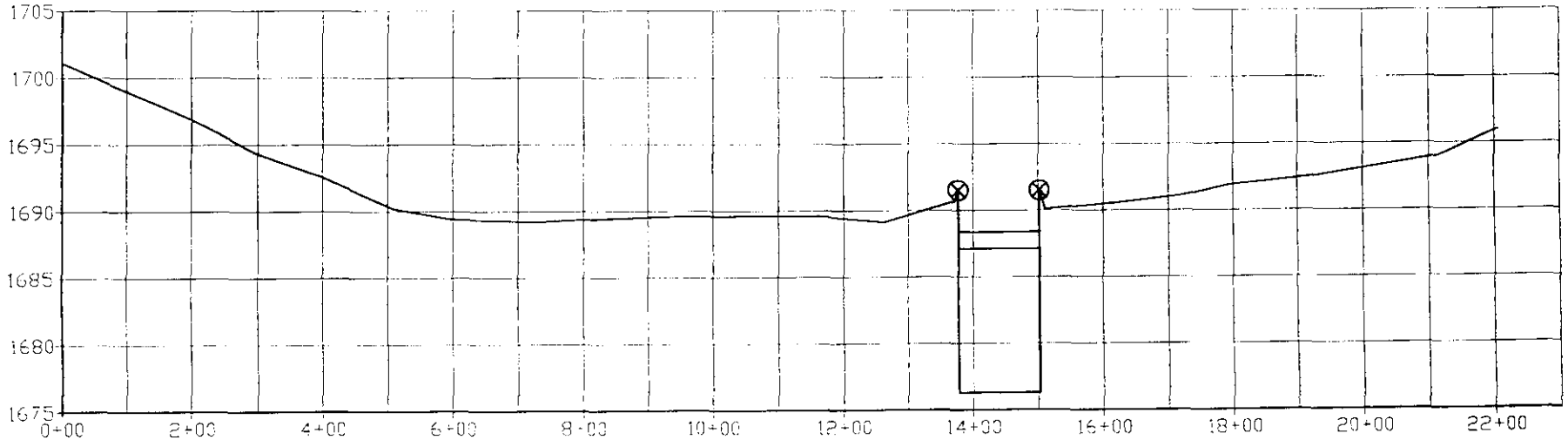
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1687.85 ft



398

Profile 2
Flow Discharge = 7100.00 cfs
– – – FLOODWAY WSEL = 1688.44 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1688.41 ft

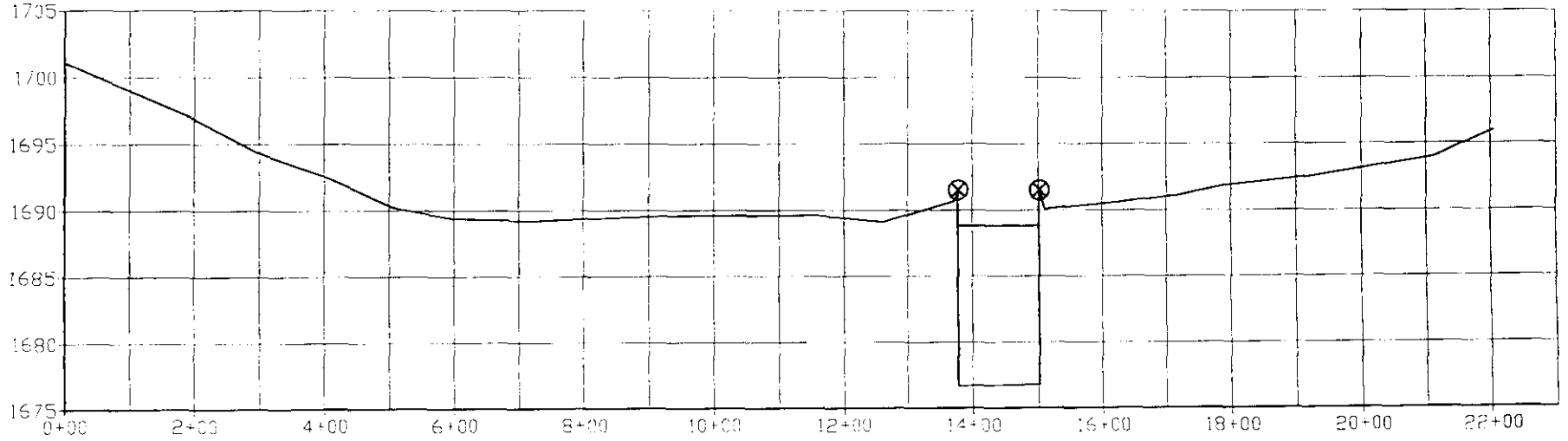


400

Downstream Vegas Valley Rd.
Special Bridge, Bridge elevations taken from field survey conducted by
Nolte & Assoc., 12-2-97

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1688.39 ft

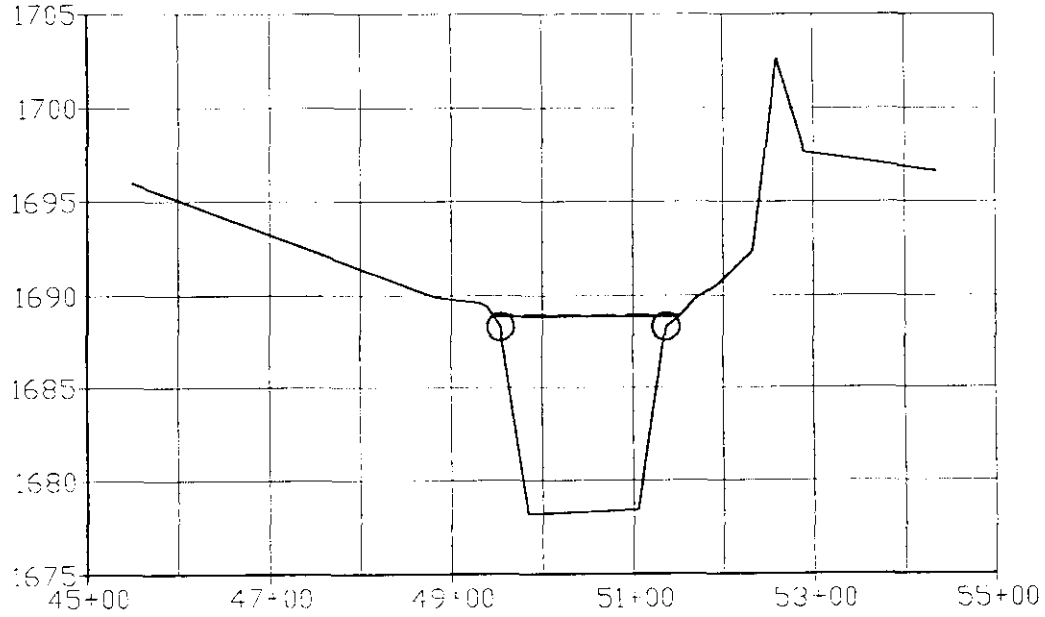
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1688.36 ft



400.1

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1688.83 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1688.79 ft

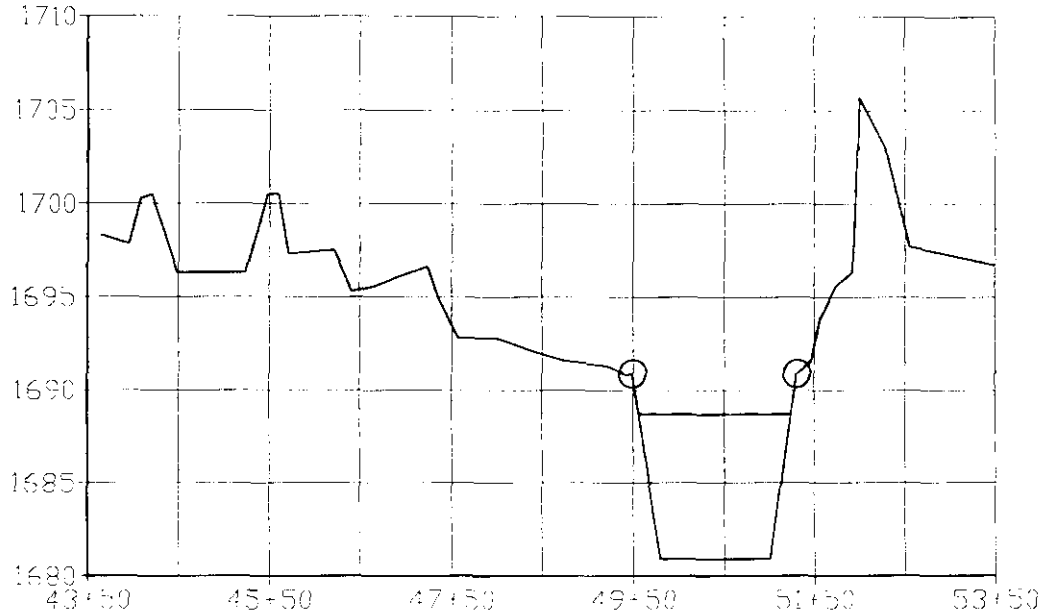


401

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1688.90 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1688.87 ft

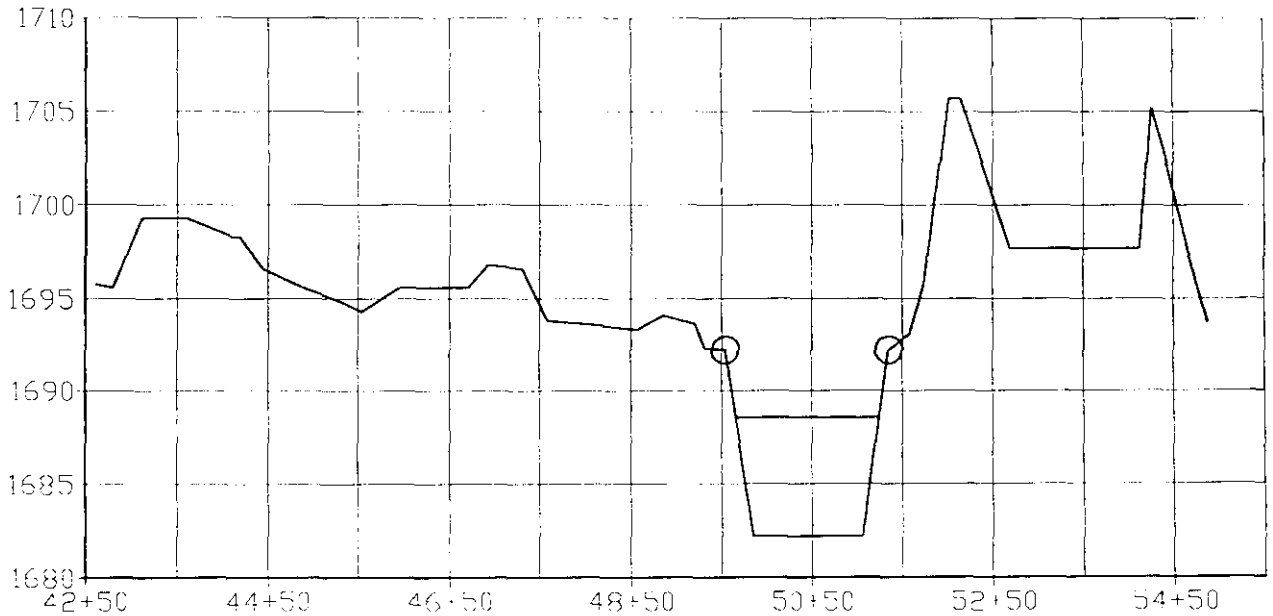


402

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- — - FLOODWAY WSEL = 1688.69 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1688.66 ft

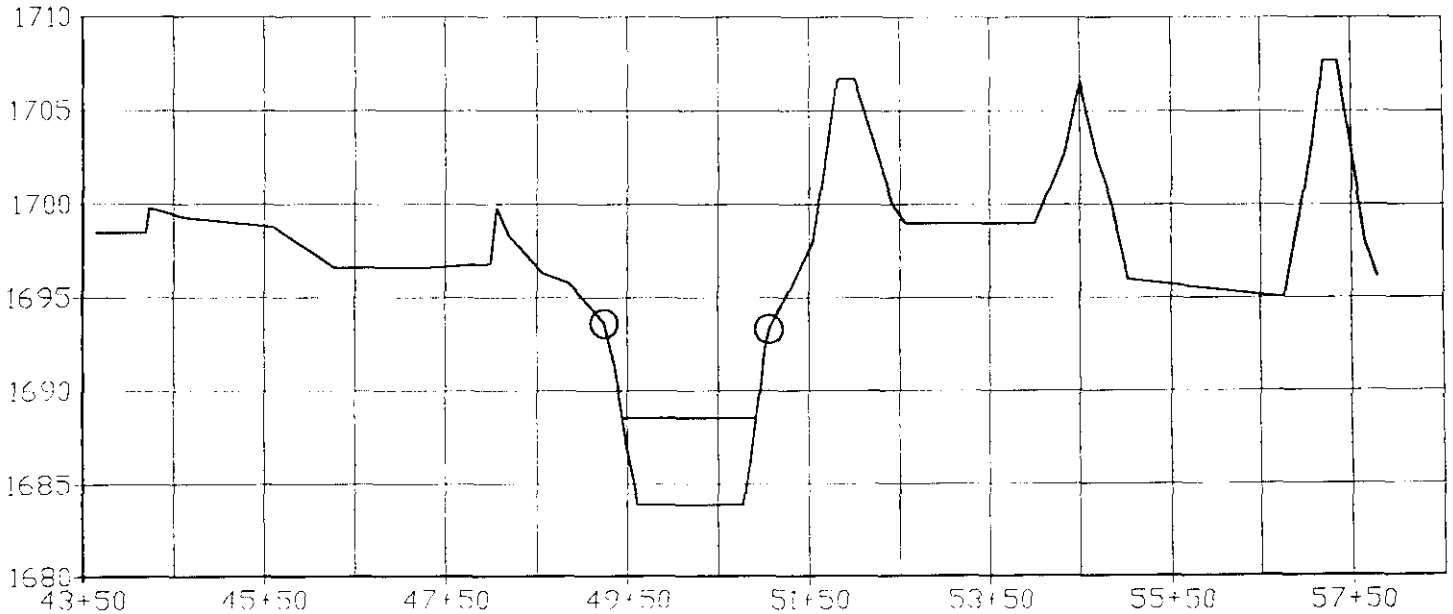


404

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1688.55 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1688.51 ft

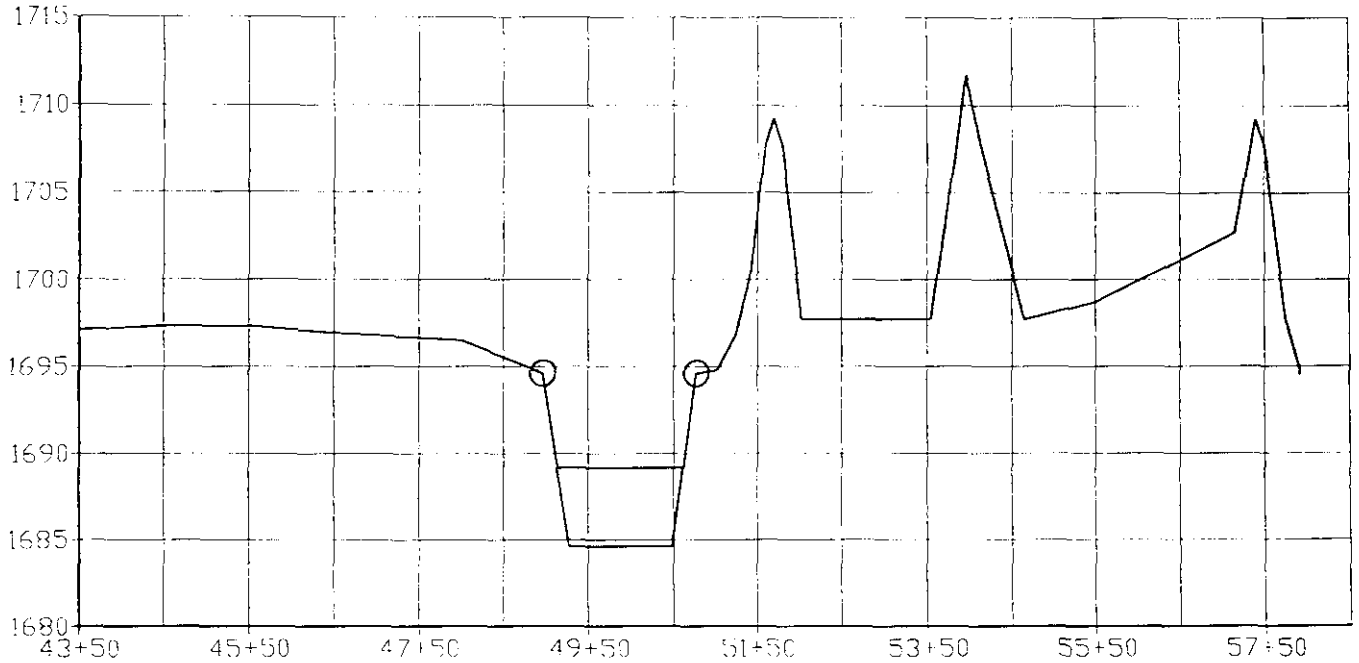


406

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1688.52 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1688.51 ft

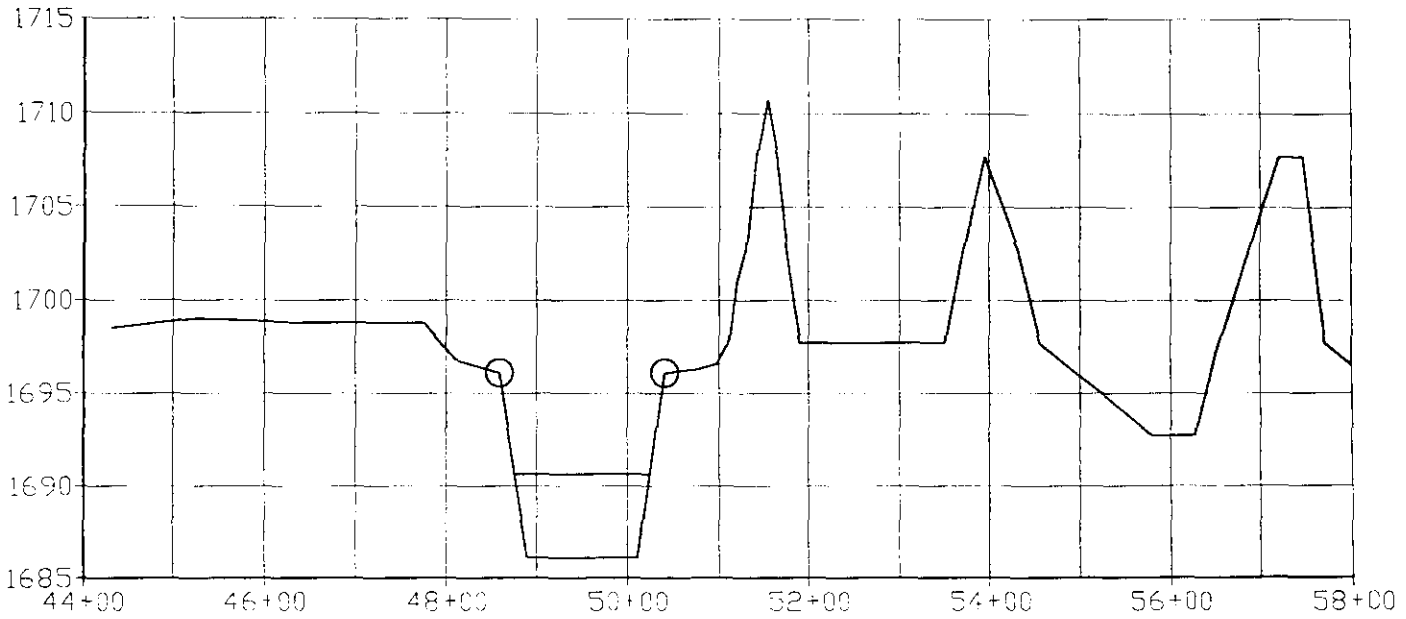


408

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1689.15 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1689.15 ft

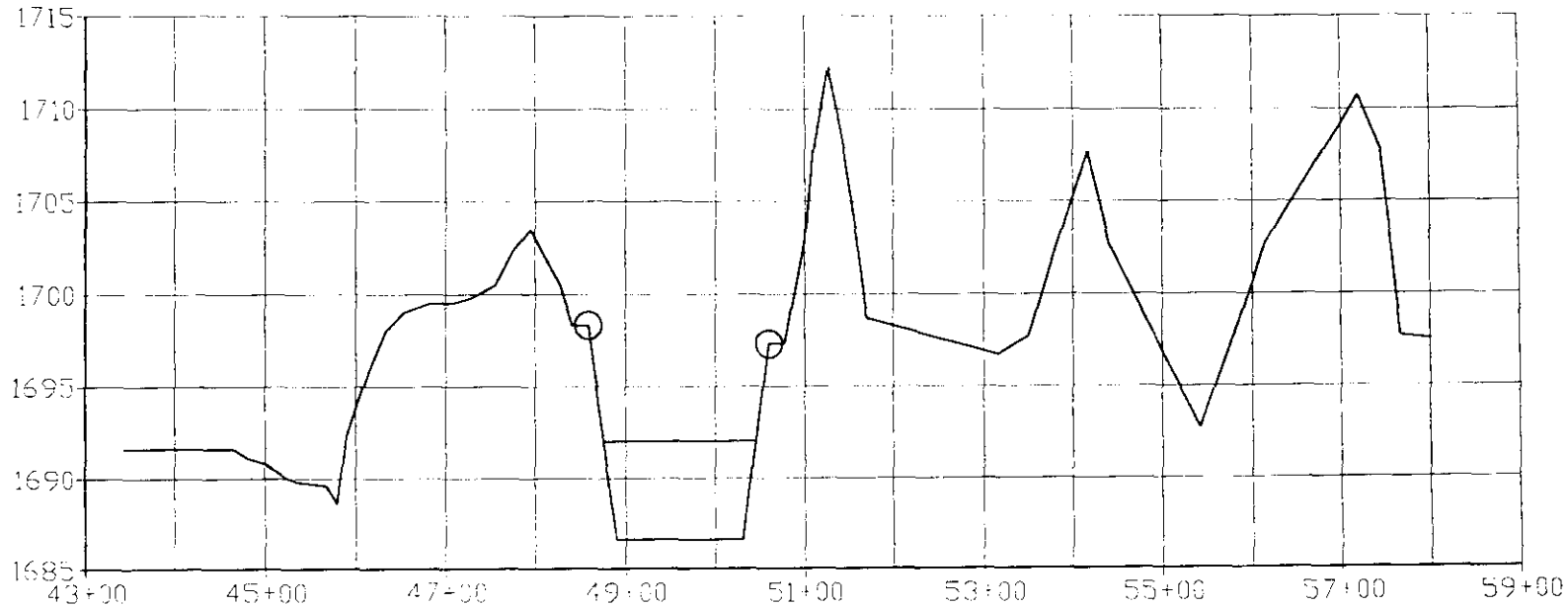


410

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1690.64 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1690.65 ft

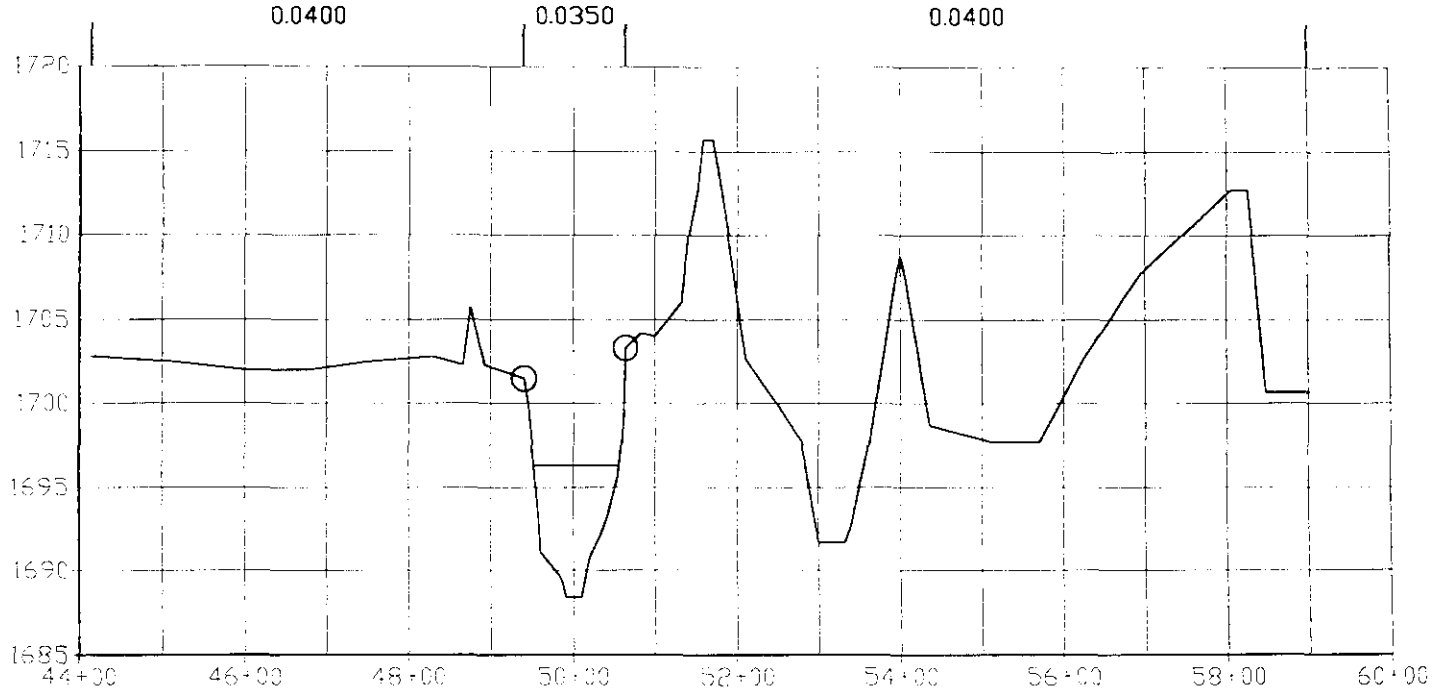


412

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1692.00 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1692.00 ft

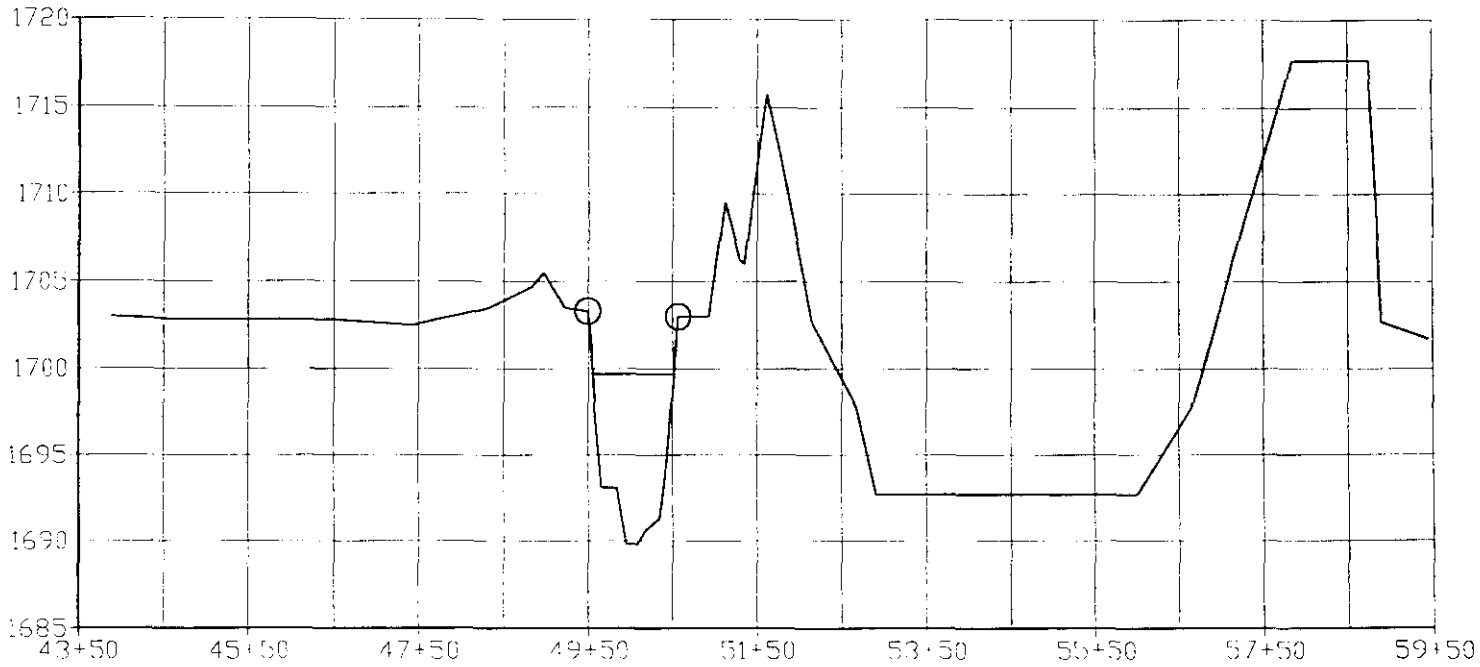


414

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1696.28 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1696.28 ft

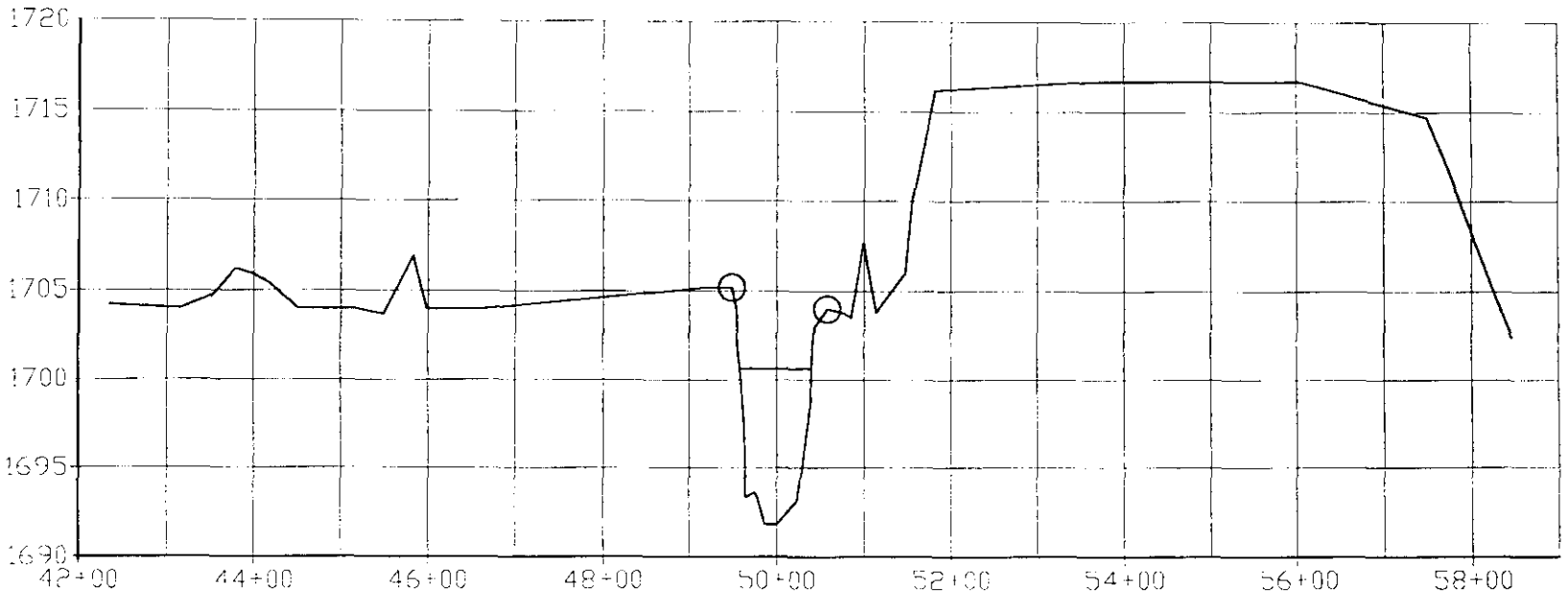


416

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOC., 03-98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1699.68 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1699.68 ft

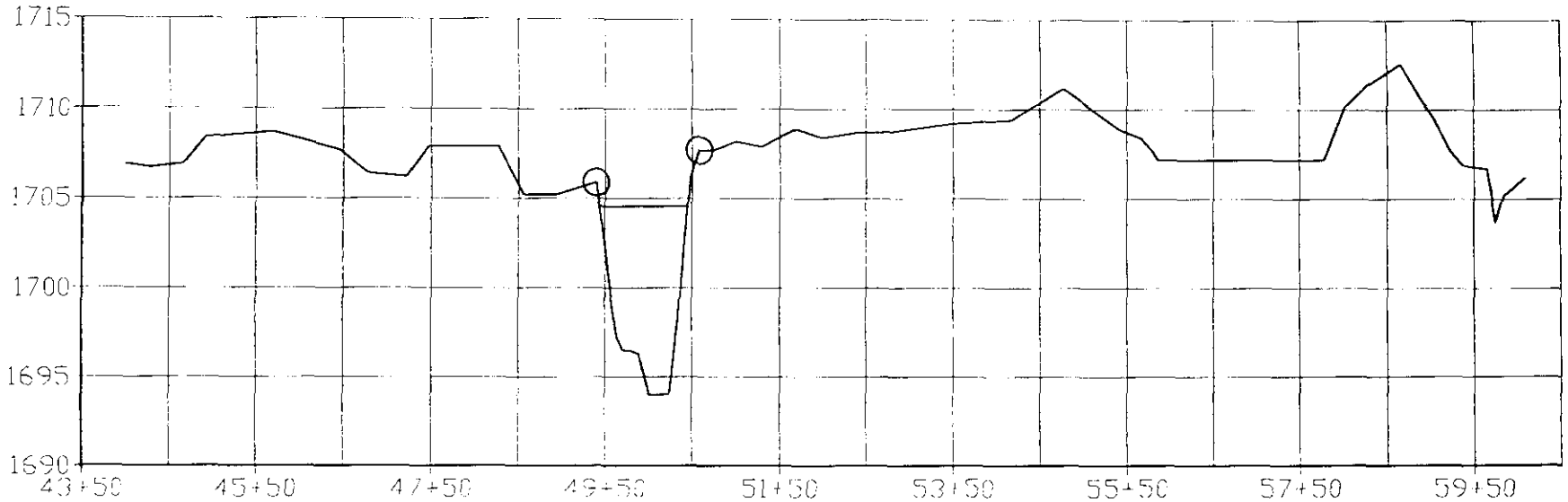


418

Rt. bank survey data from Links Golf Course Grading Plan
Plans by CELLA BARR ASSOCIATES, 03/98

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1700.61 ft

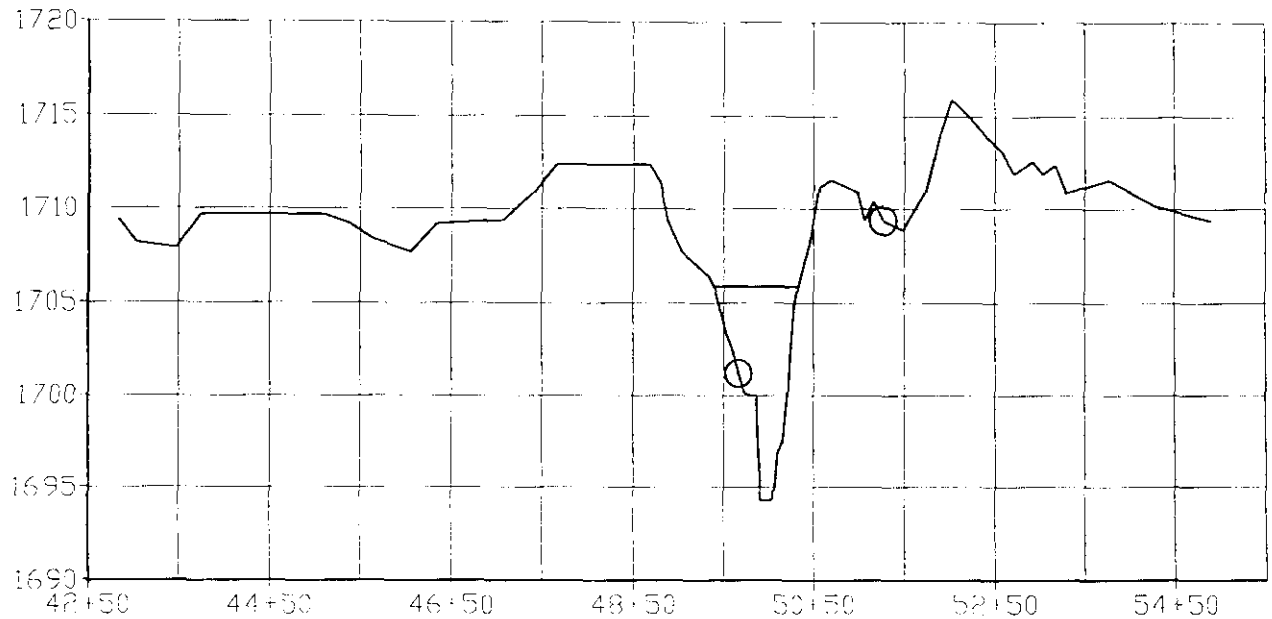
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1700.61 ft



420

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1704.57 ft

Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1704.57 ft

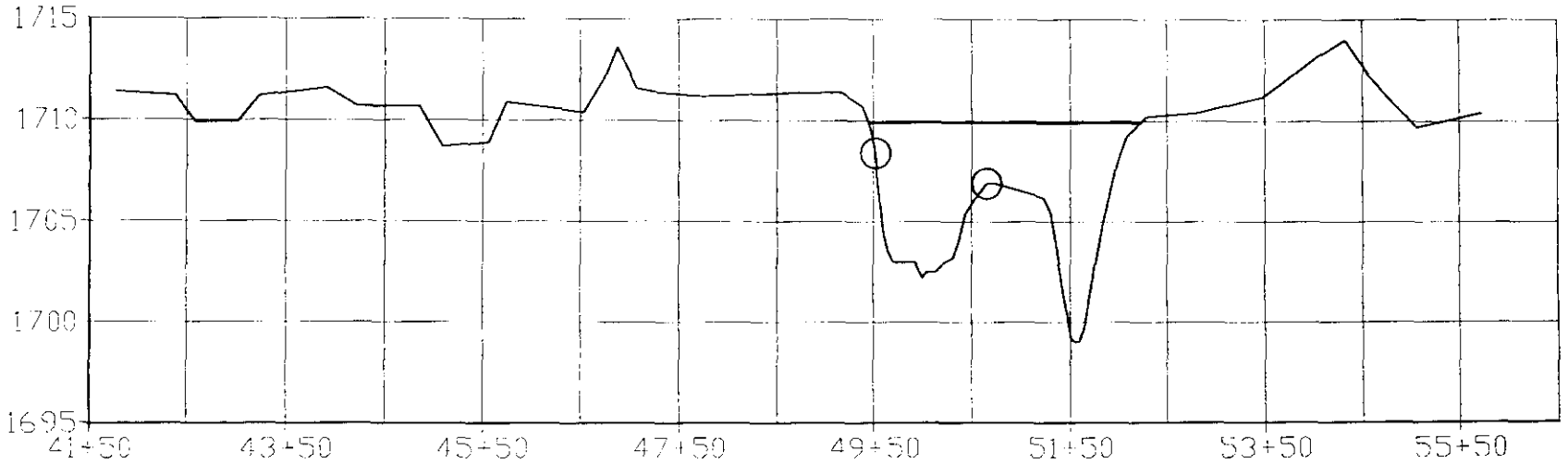


422

Confluence with Flamingo Wash

Profile 2
Flow Discharge = 7100.00 cfs
- - - FLOODWAY WSEL = 1705.89 ft

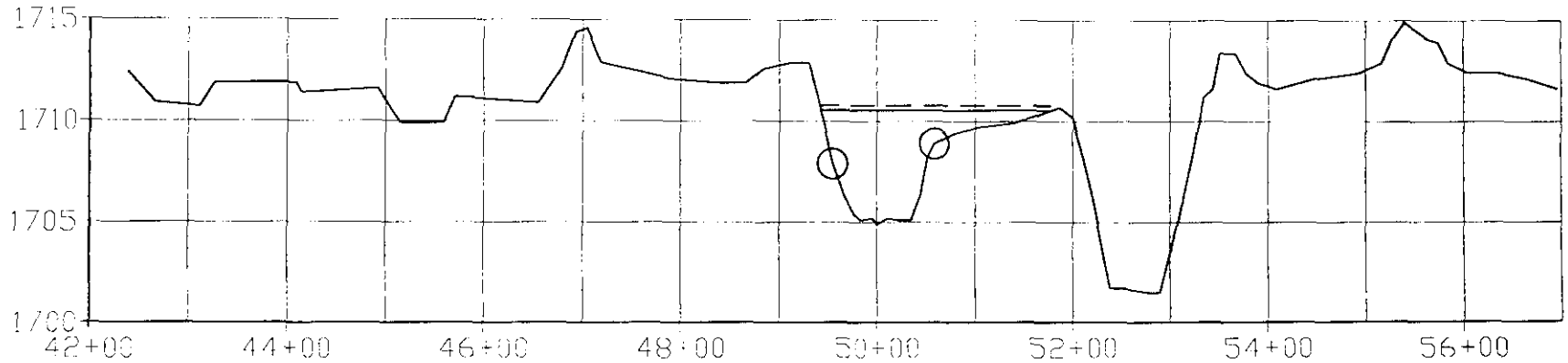
Profile 3
Flow Discharge = 7100.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1705.88 ft



424

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1709.92 ft

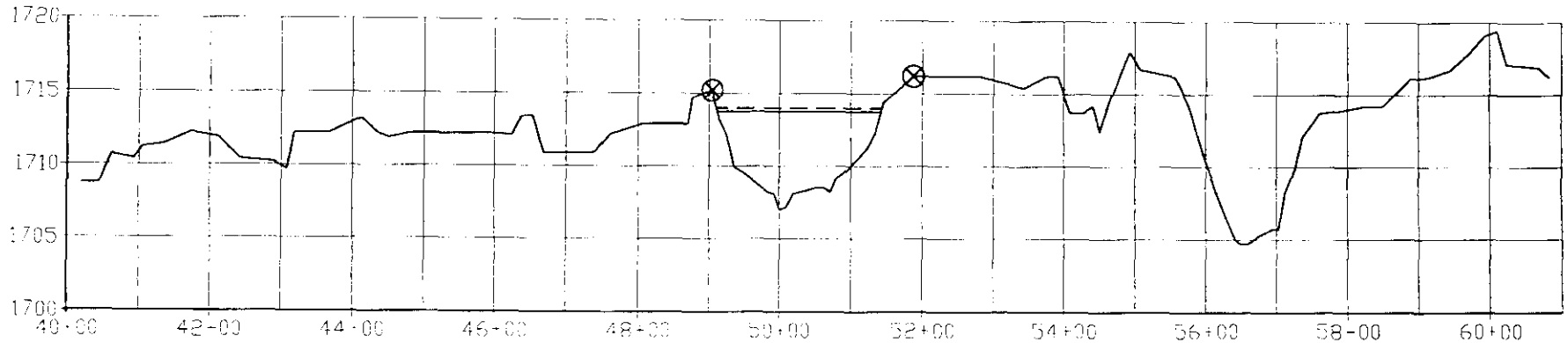
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1709.89 ft



426

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1710.80 ft

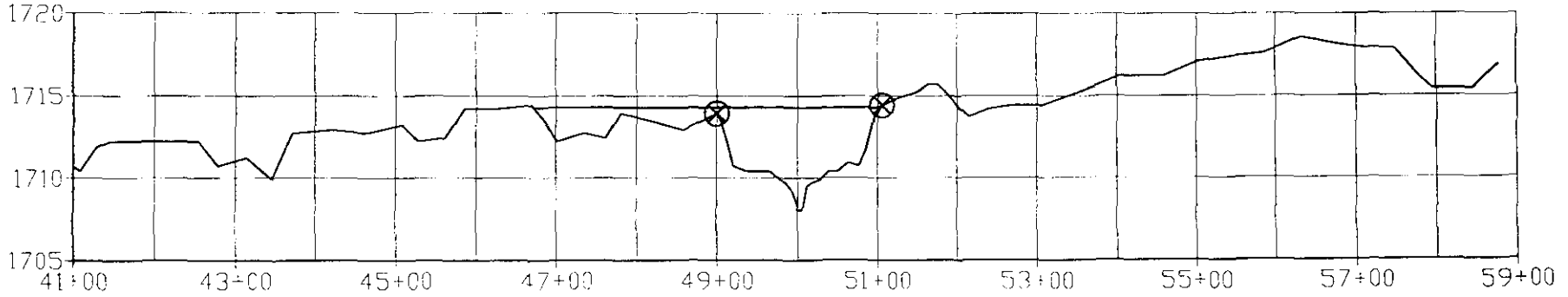
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1710.54 ft



428

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1713.94 ft

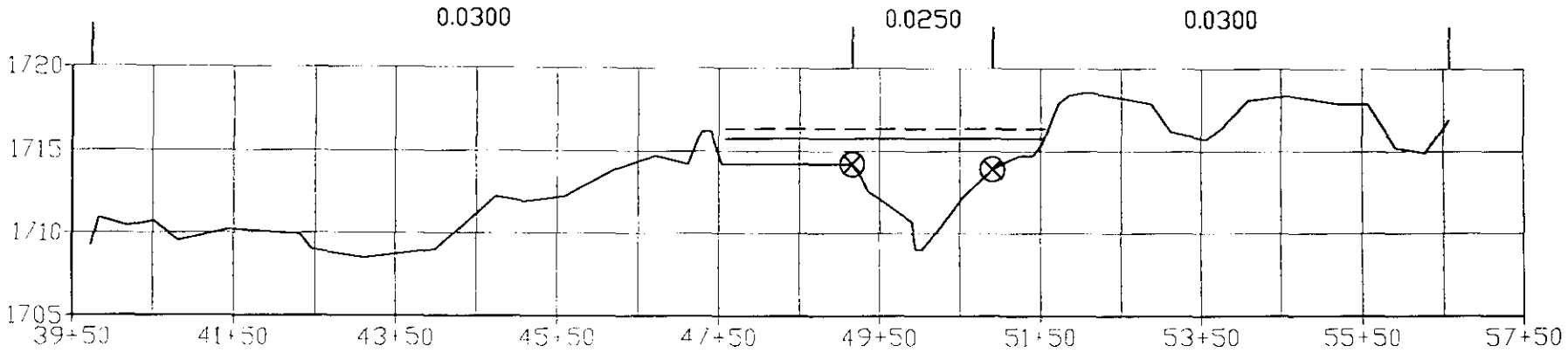
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1713.75 ft



430

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1714.30 ft

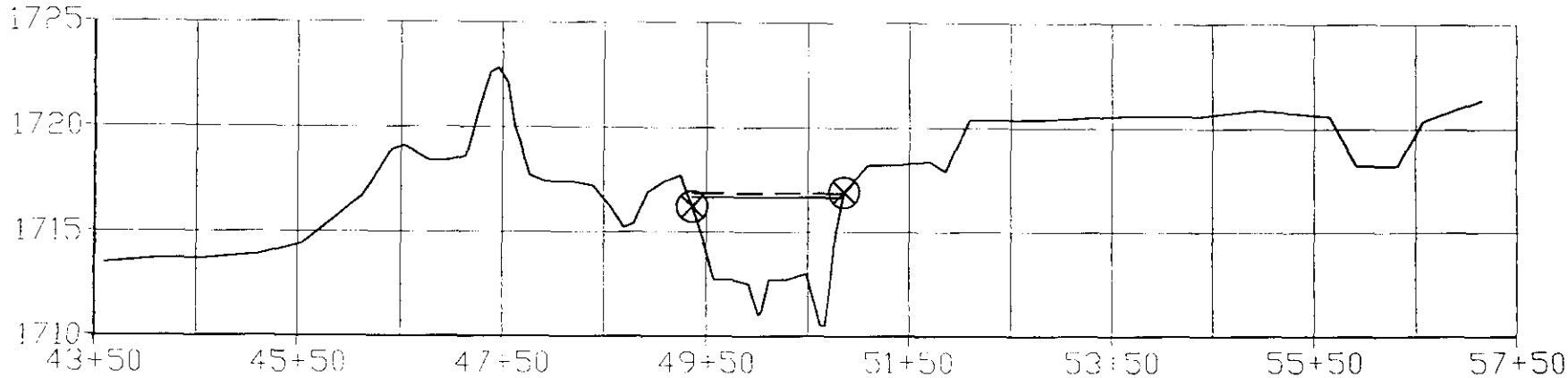
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1714.24 ft



432

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1716.35 ft

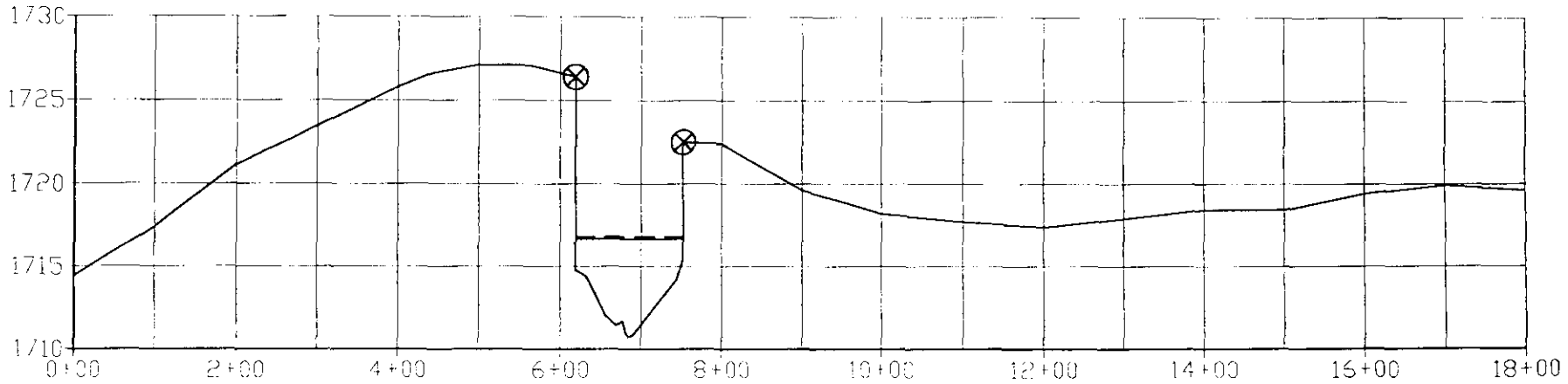
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1715.75 ft



438

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1716.83 ft

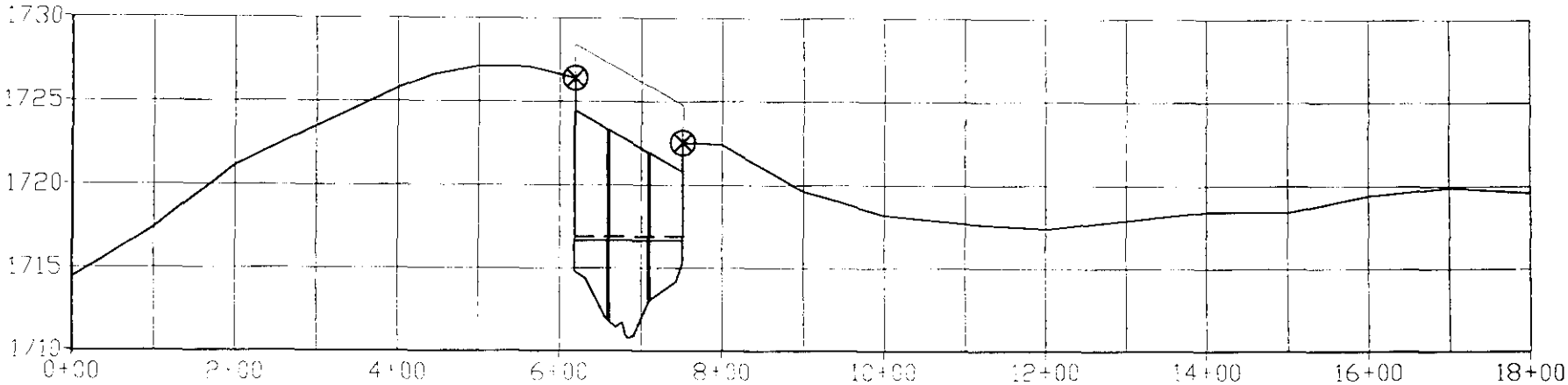
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1716.64 ft



439

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1716.81 ft

Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1716.64 ft

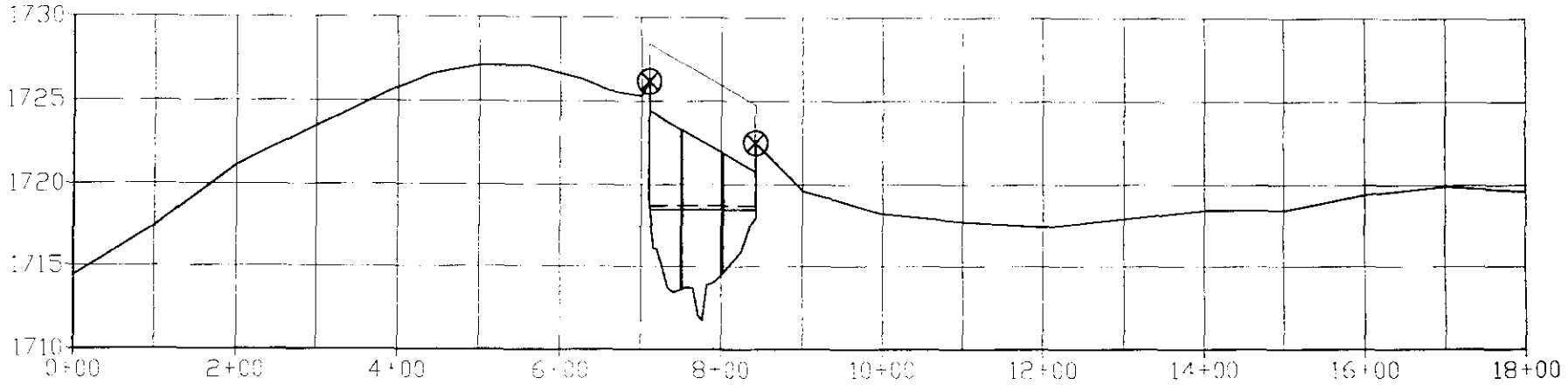


439.1

Downstream Sahara Ave.
Normal Bridge

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1716.89 ft

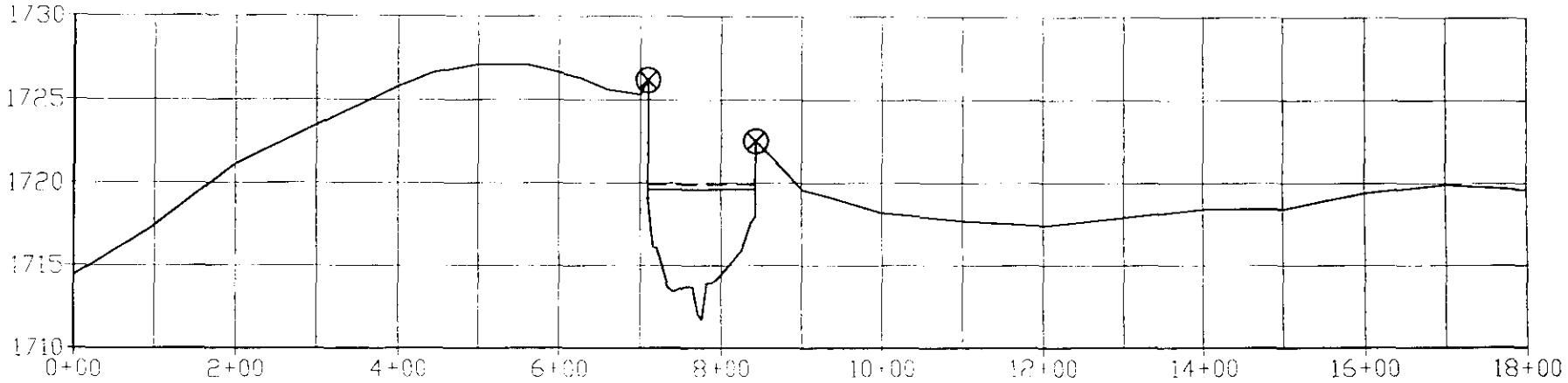
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1716.67 ft



440

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1718.68 ft

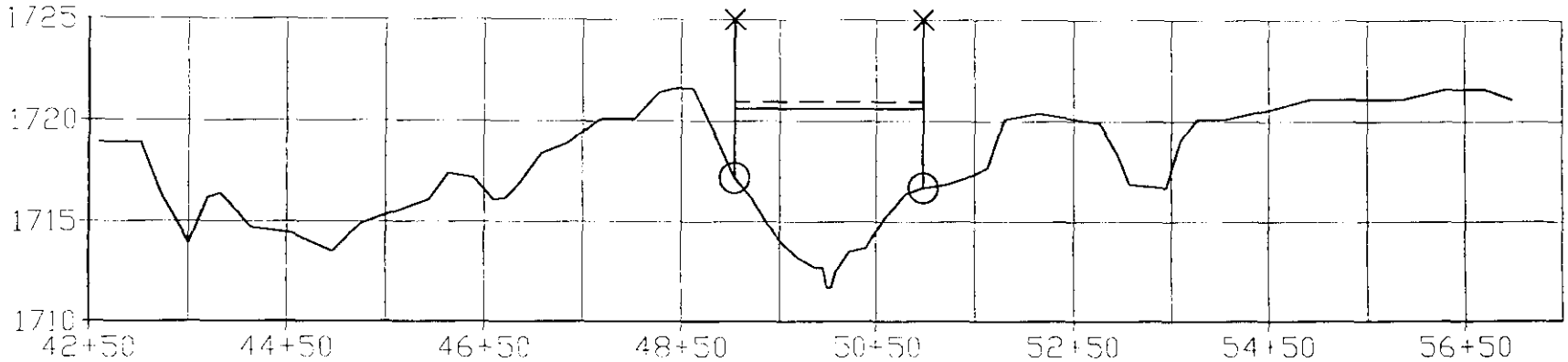
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1718.45 ft



440.1

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1719.88 ft

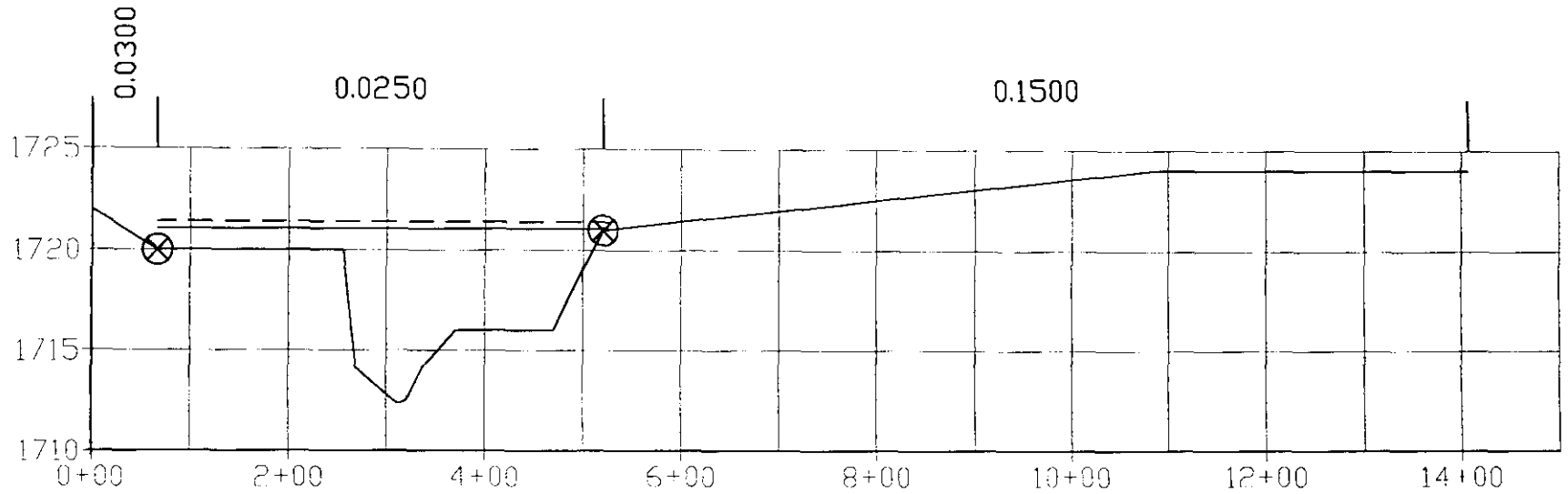
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1719.60 ft



441

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1720.97 ft

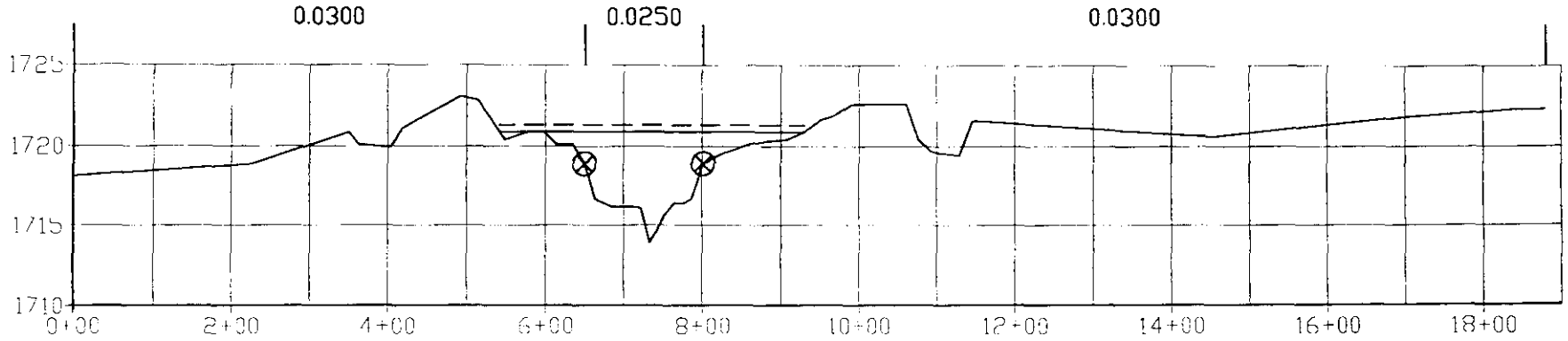
Profile 3
Flow Discharge = 5504.38 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1720.62 ft



442

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1721.40 ft

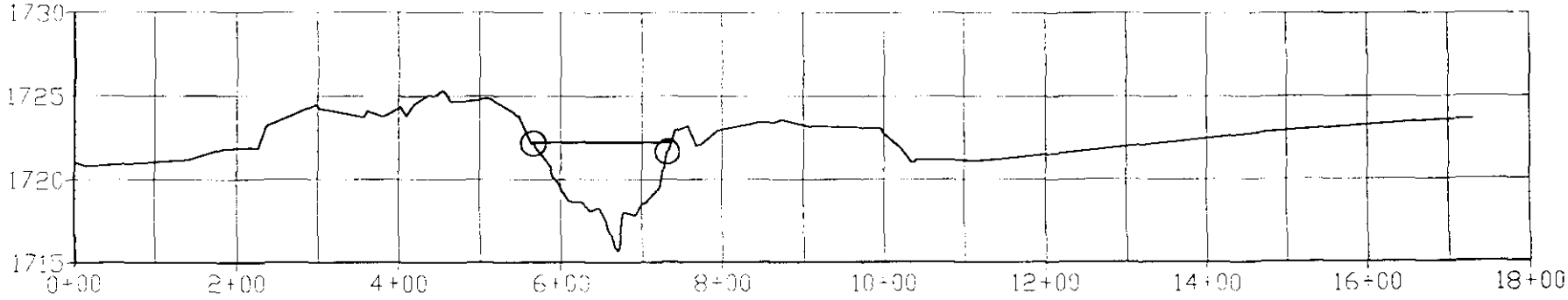
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1721.04 ft



444

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1721.29 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1720.90 ft

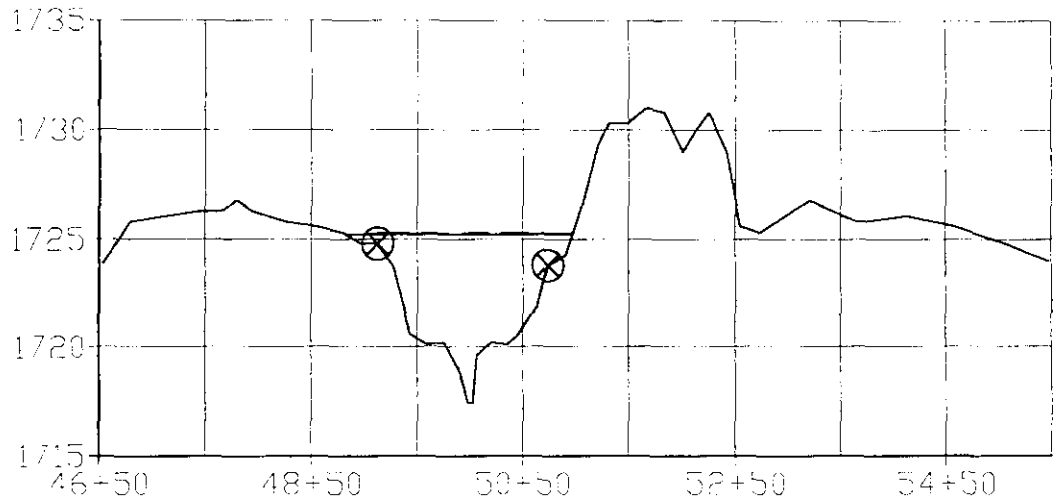


446

Attempts were made to remove .04' negative surcharge on floodway profile by both widening and narrowing encroachments. Negative Surcharge is due to computational shortcomings of HEC-2 computer program

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1722.19 ft

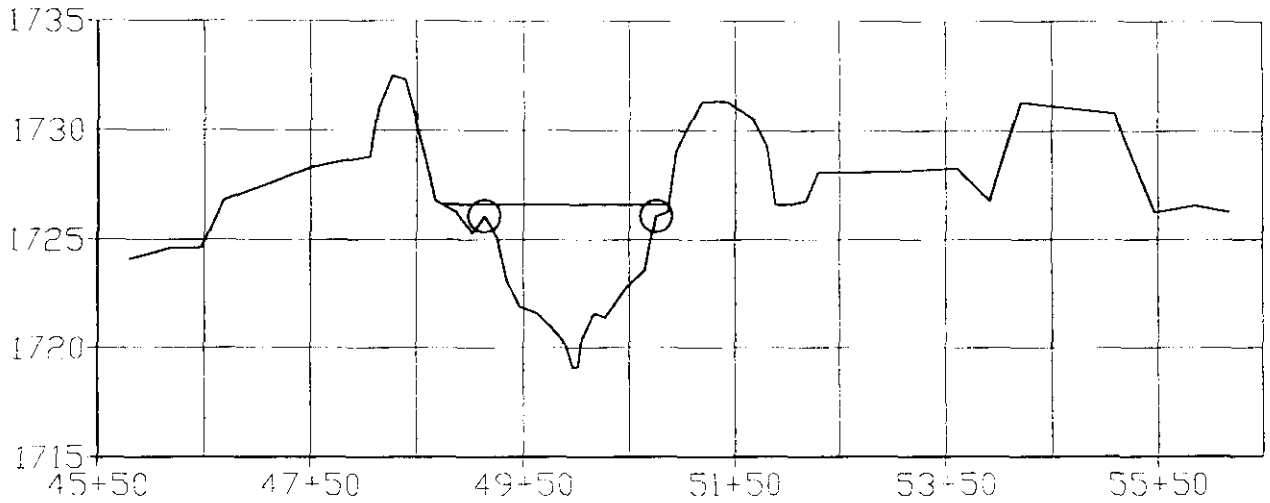
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1722.25 ft



448

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1725.27 ft

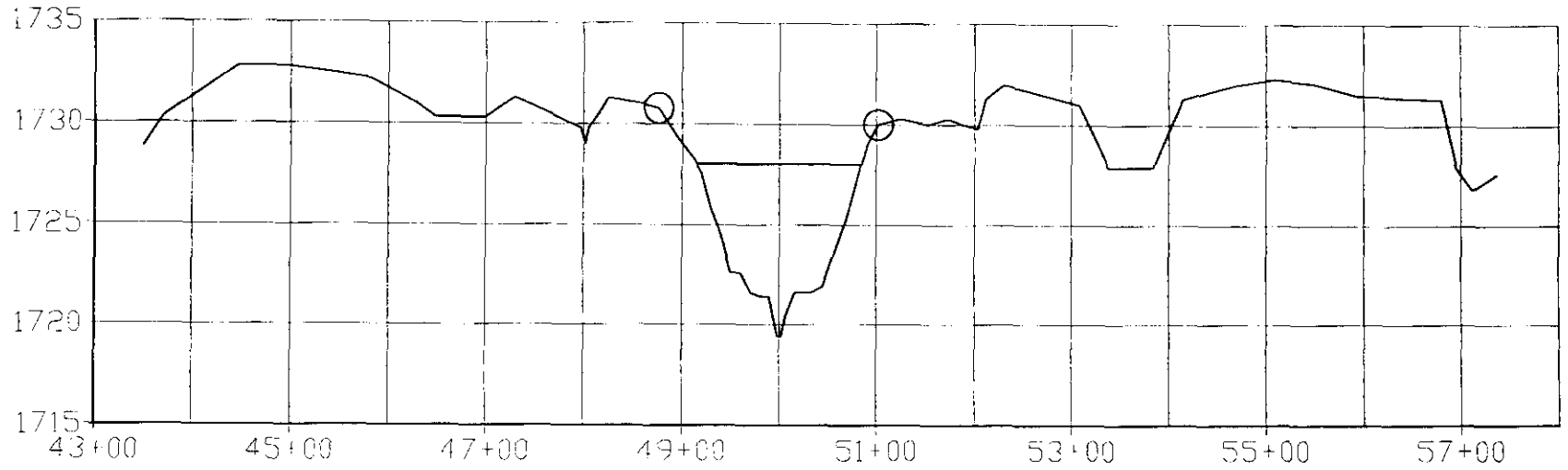
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1725.23 ft



450

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1726.63 ft

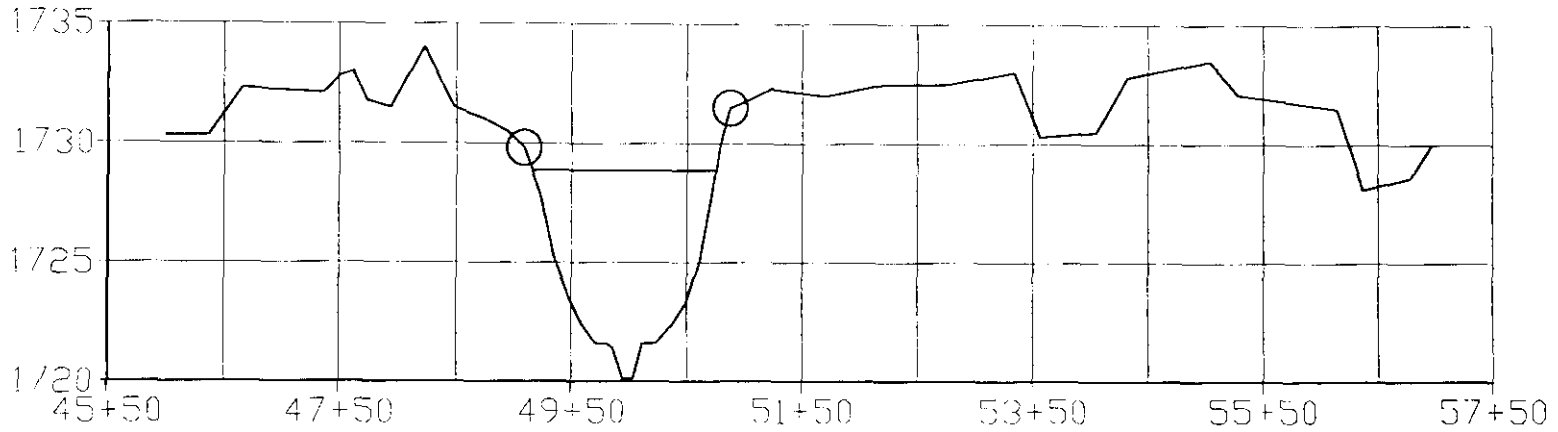
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1726.62 ft



452

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1728.01 ft

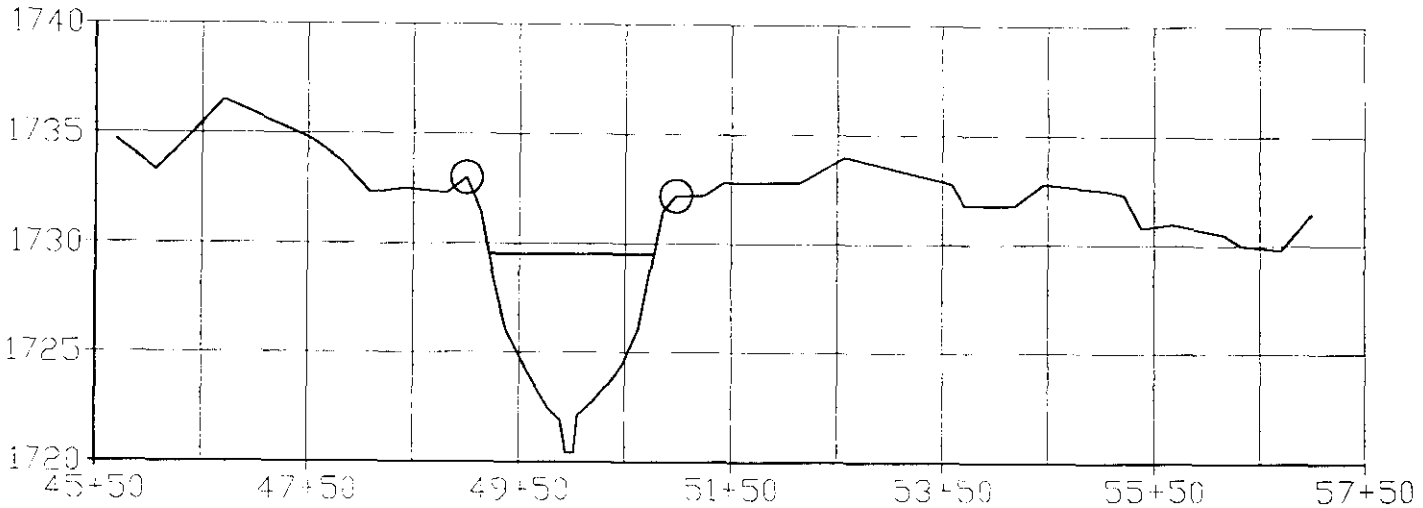
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1728.01 ft



454

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1728.86 ft

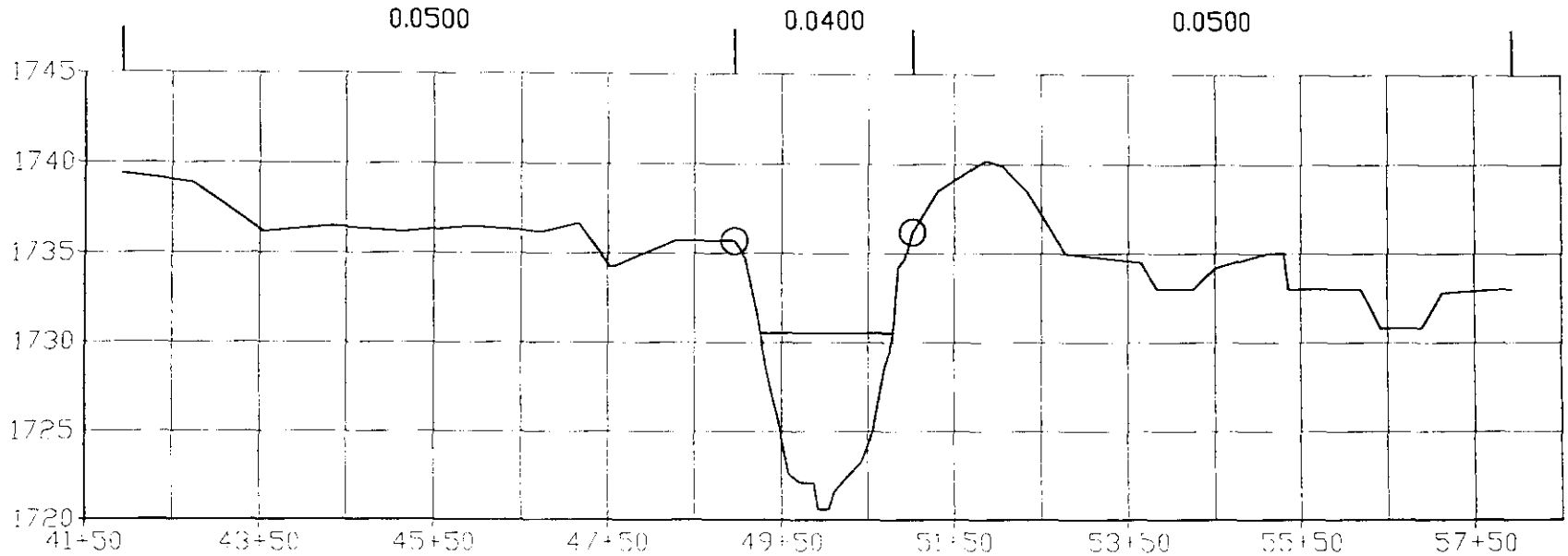
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1728.86 ft



456

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1729.51 ft

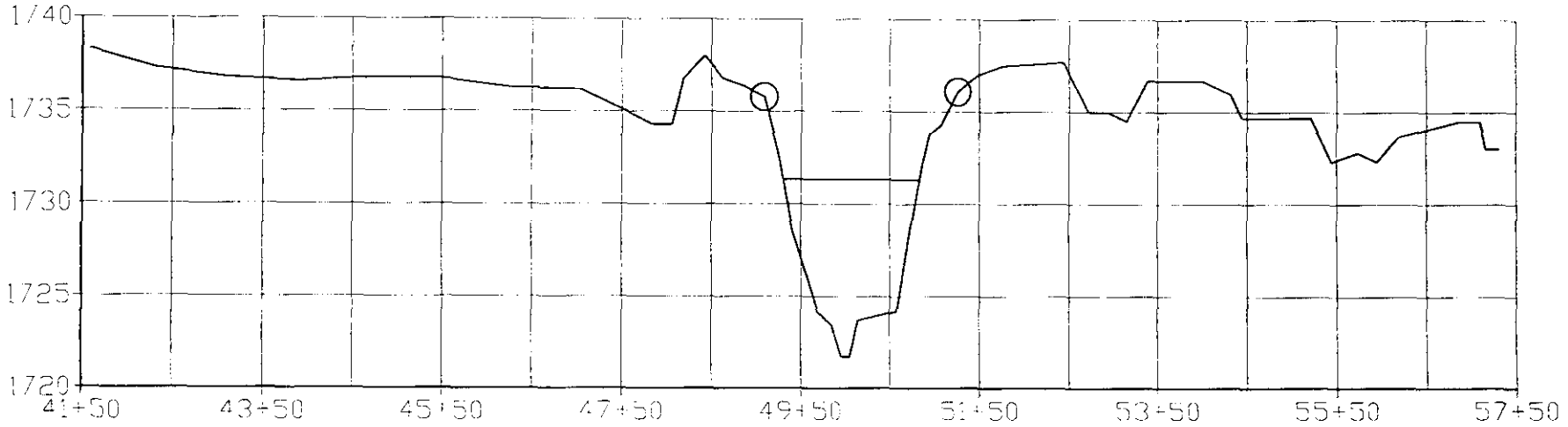
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1729.51 ft



458

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1730.53 ft

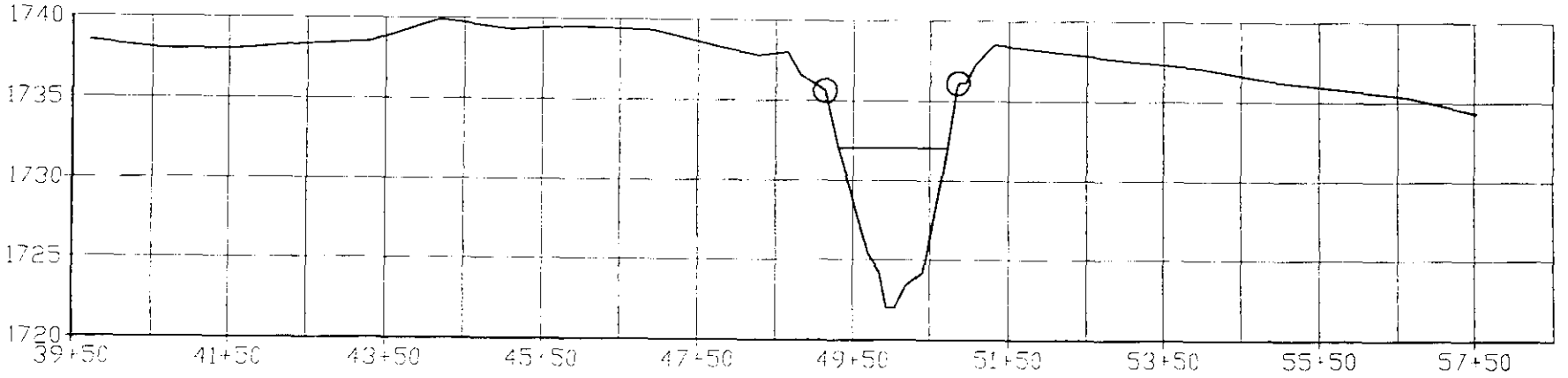
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1730.53 ft



460

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1731.33 ft

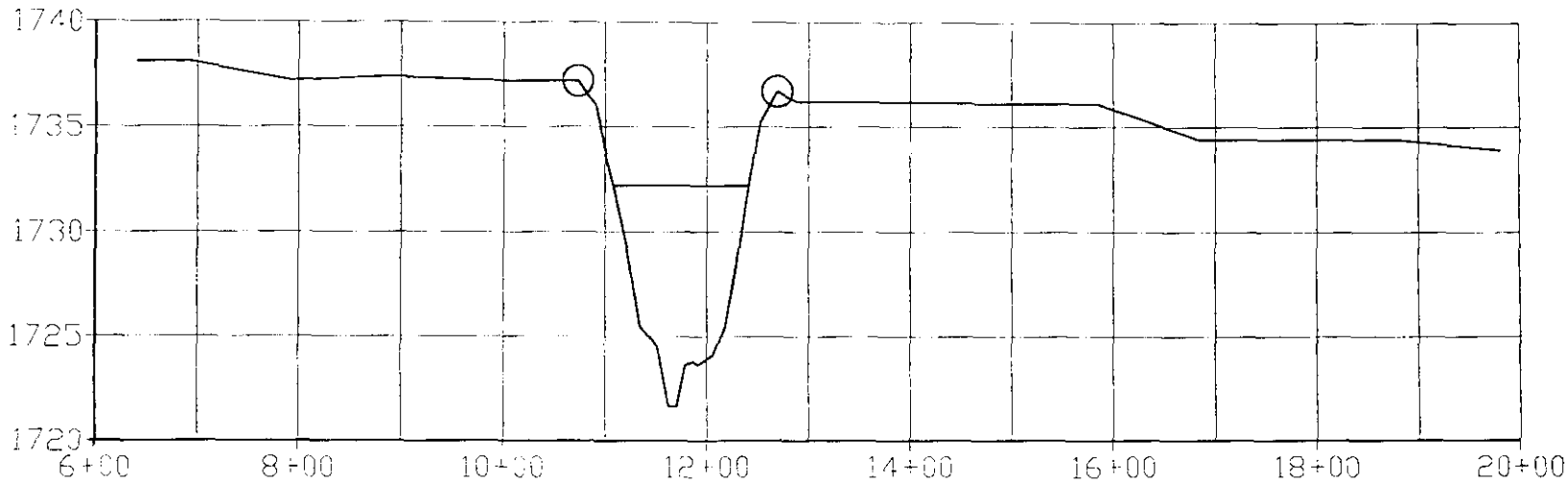
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1731.33 ft



468

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1732.04 ft

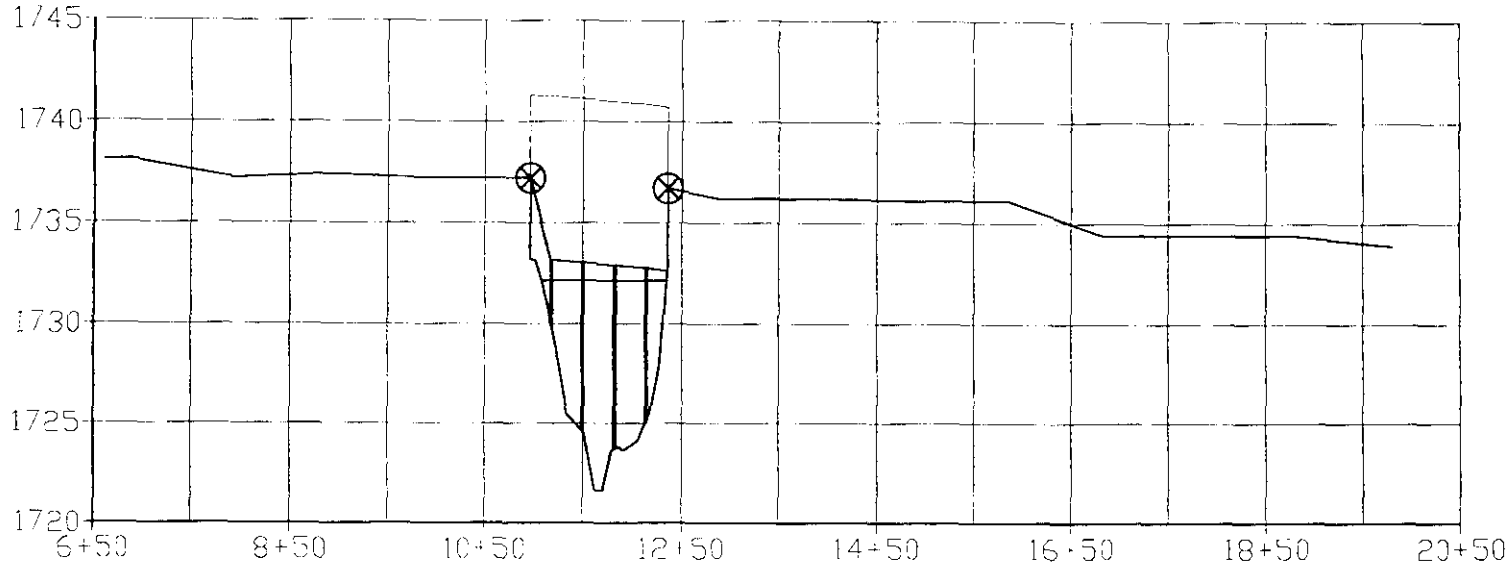
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1732.04 ft



468.9

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1732.19 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1732.19 ft

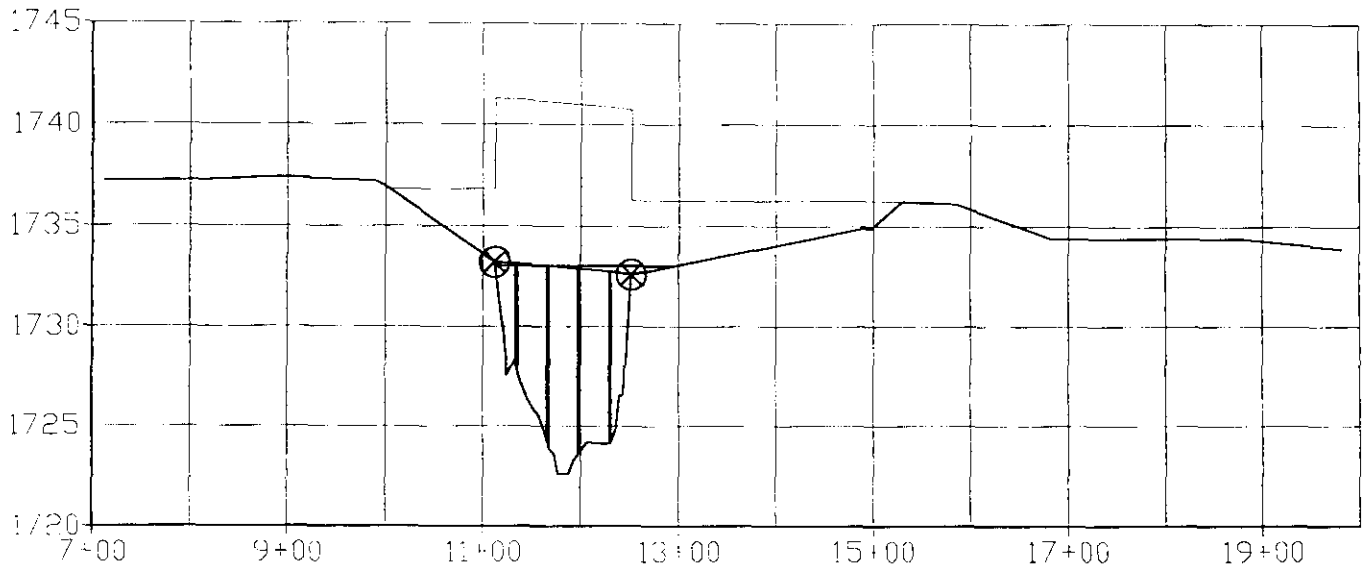


469

Downstream Nellis Blvd
Normal Bridge

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1732.14 ft

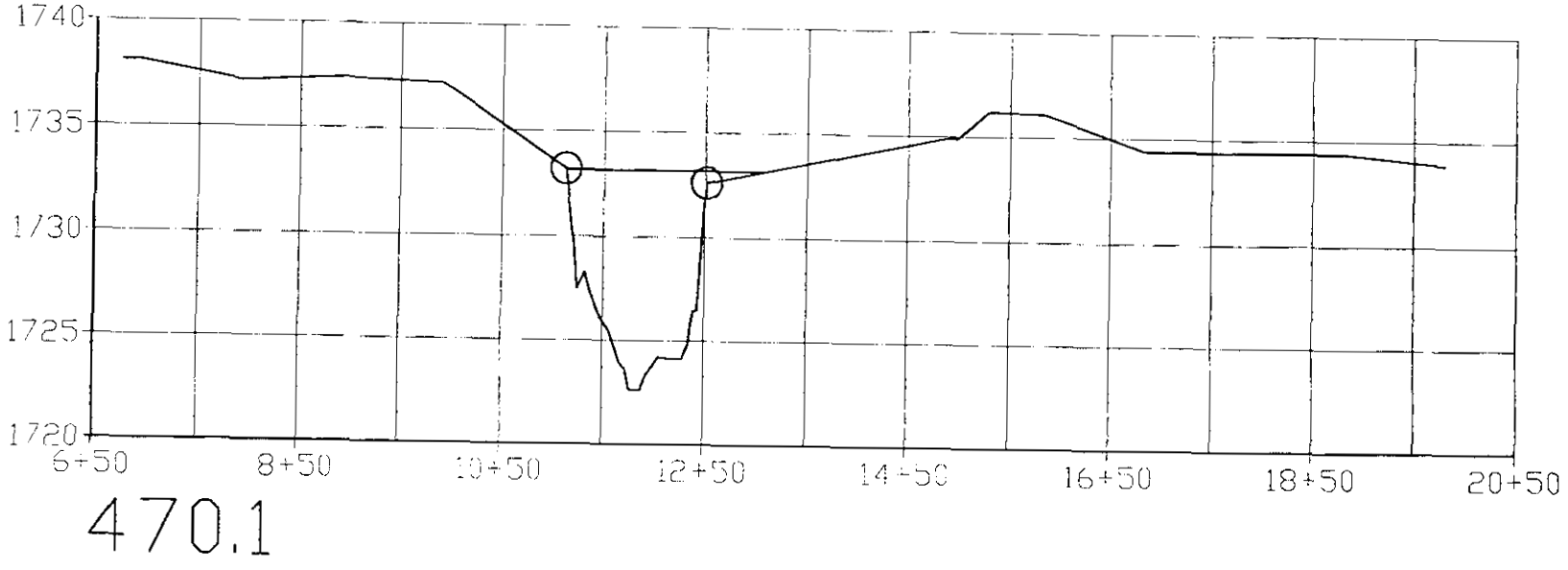
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1732.14 ft



470

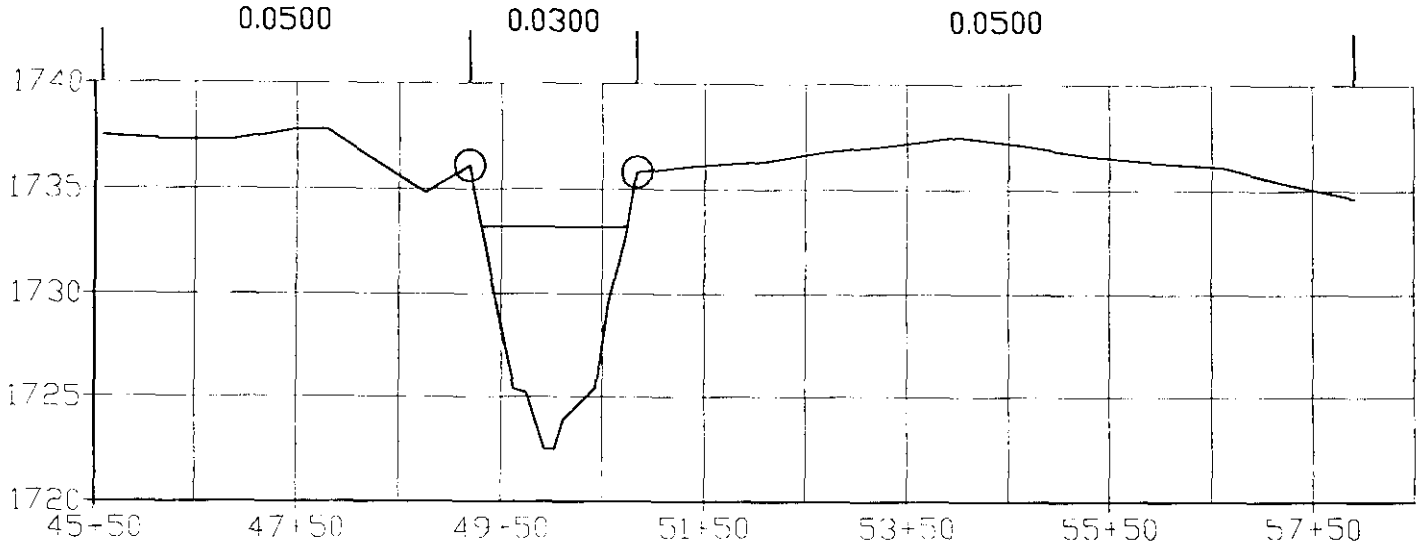
Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1733.05 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1733.05 ft



Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1733.17 ft

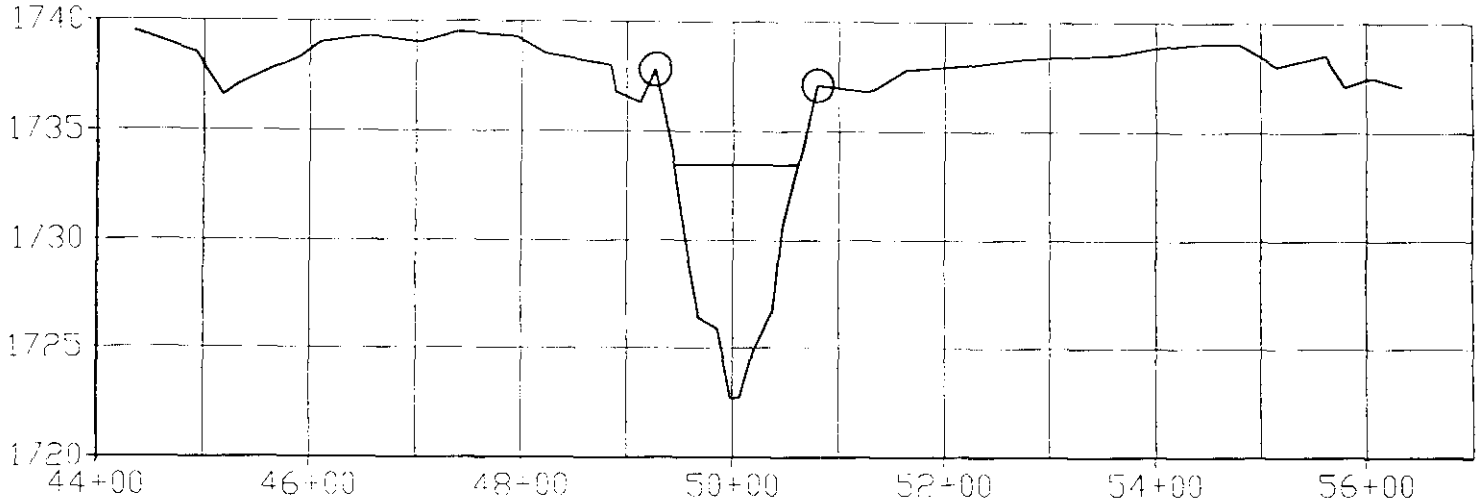
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1733.17 ft



471

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1733.17 ft

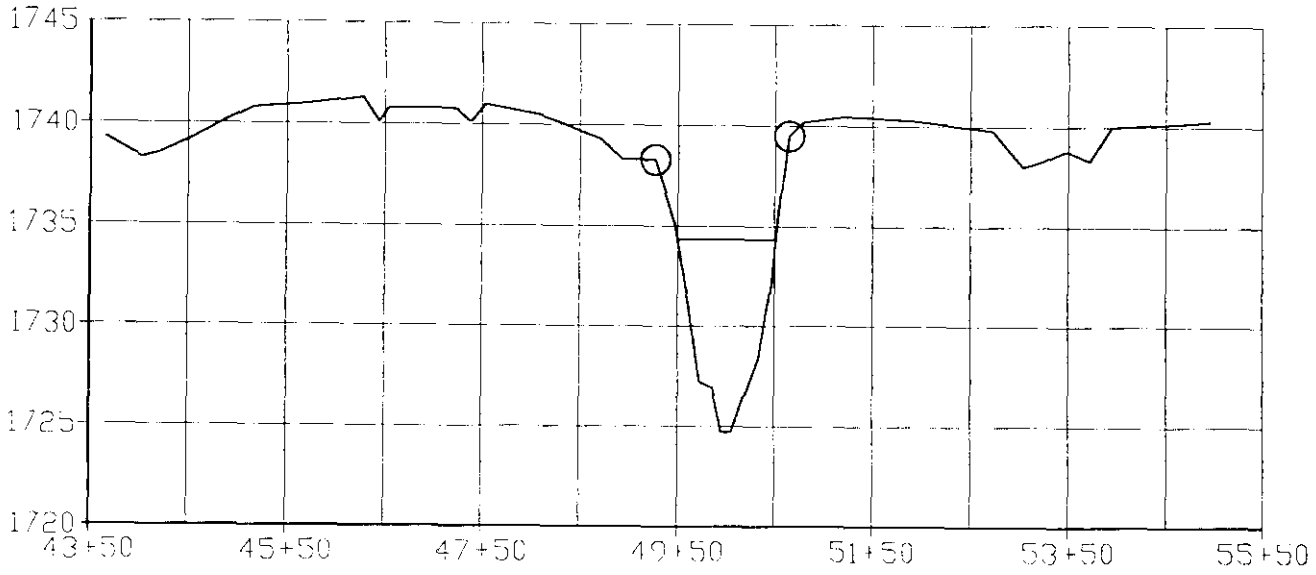
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1733.17 ft



472

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1733.46 ft

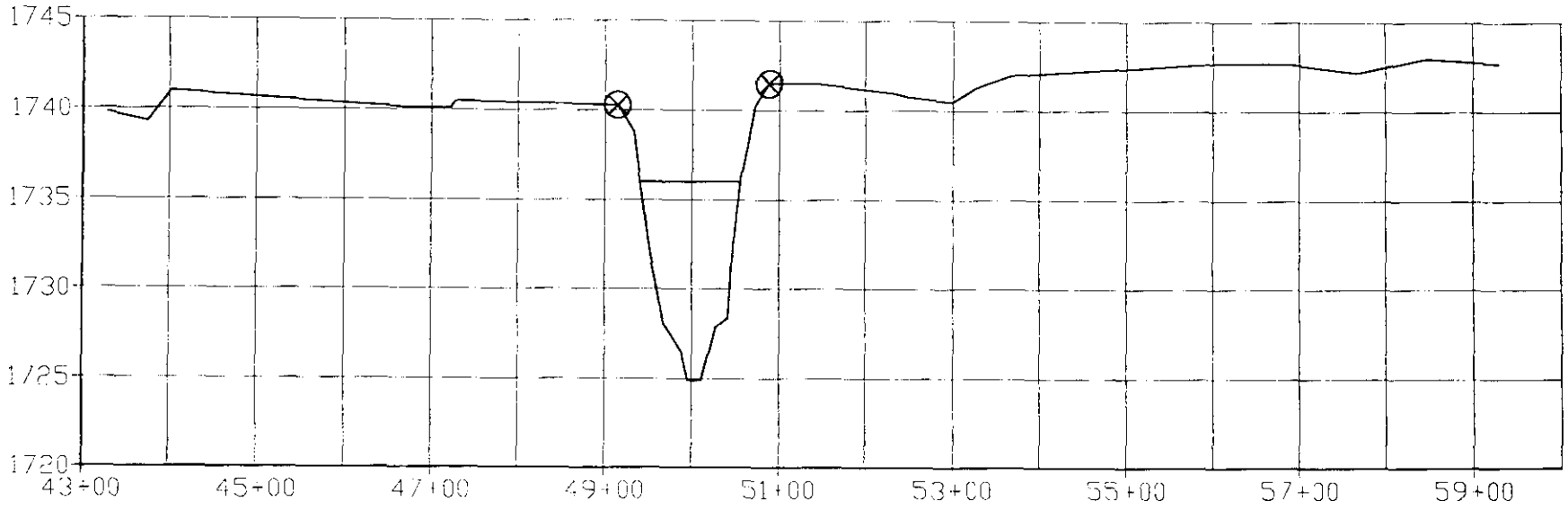
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1733.46 ft



474

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1734.33 ft

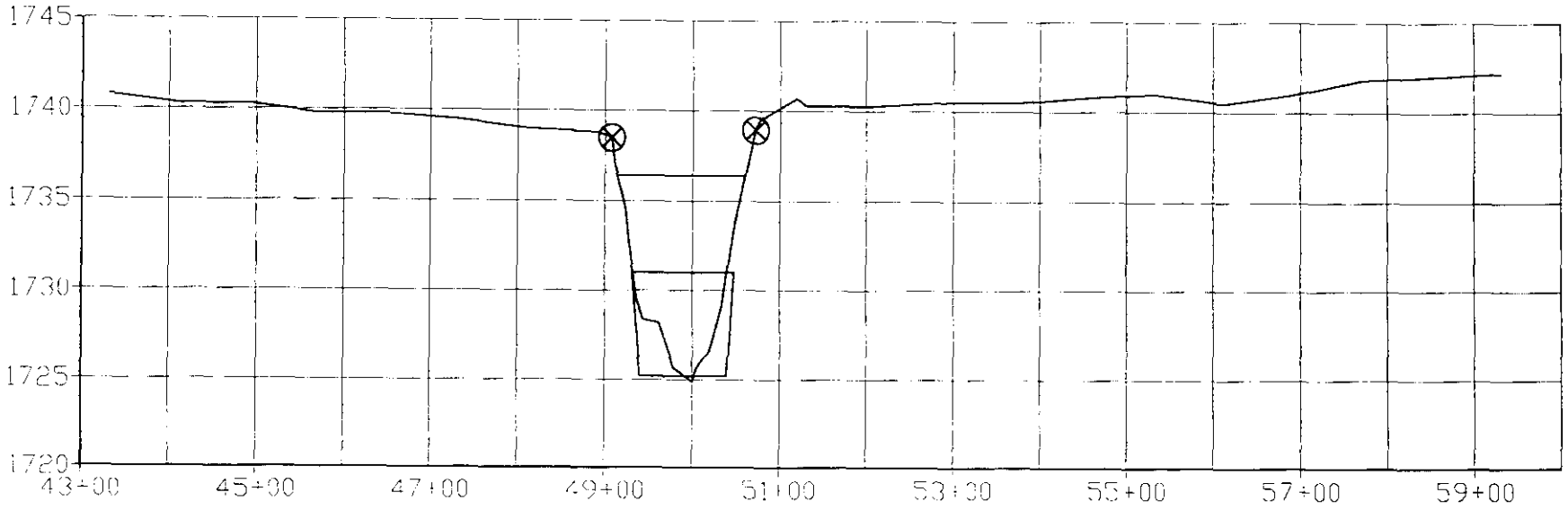
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1734.33 ft



478

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1736.00 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1736.00 ft

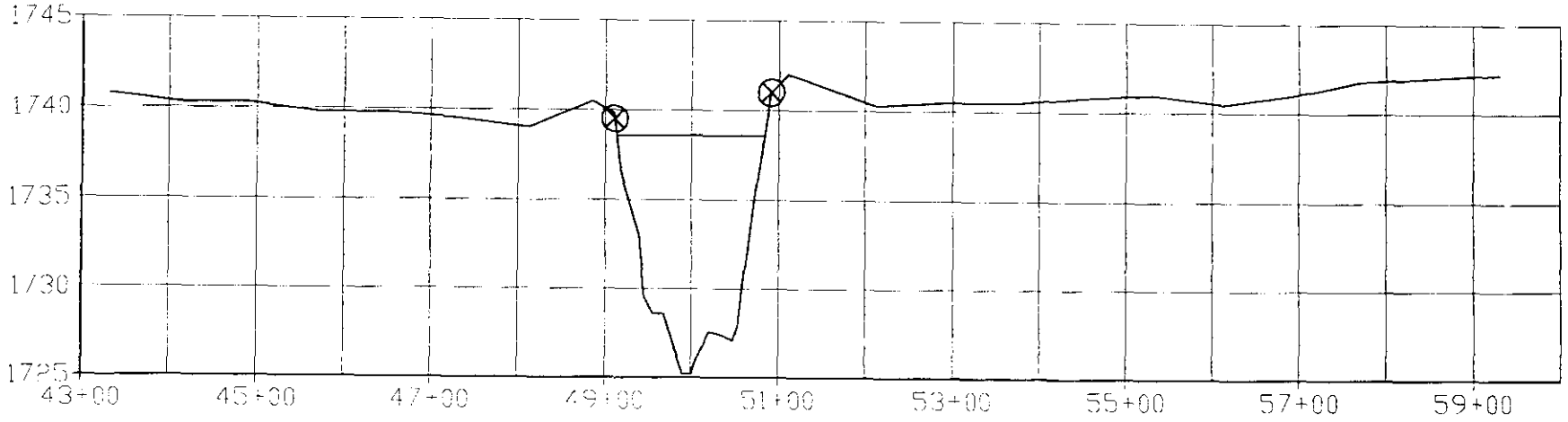


479.1

Downstream Charleston Blvd.
Special Bridge

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1736.40 ft

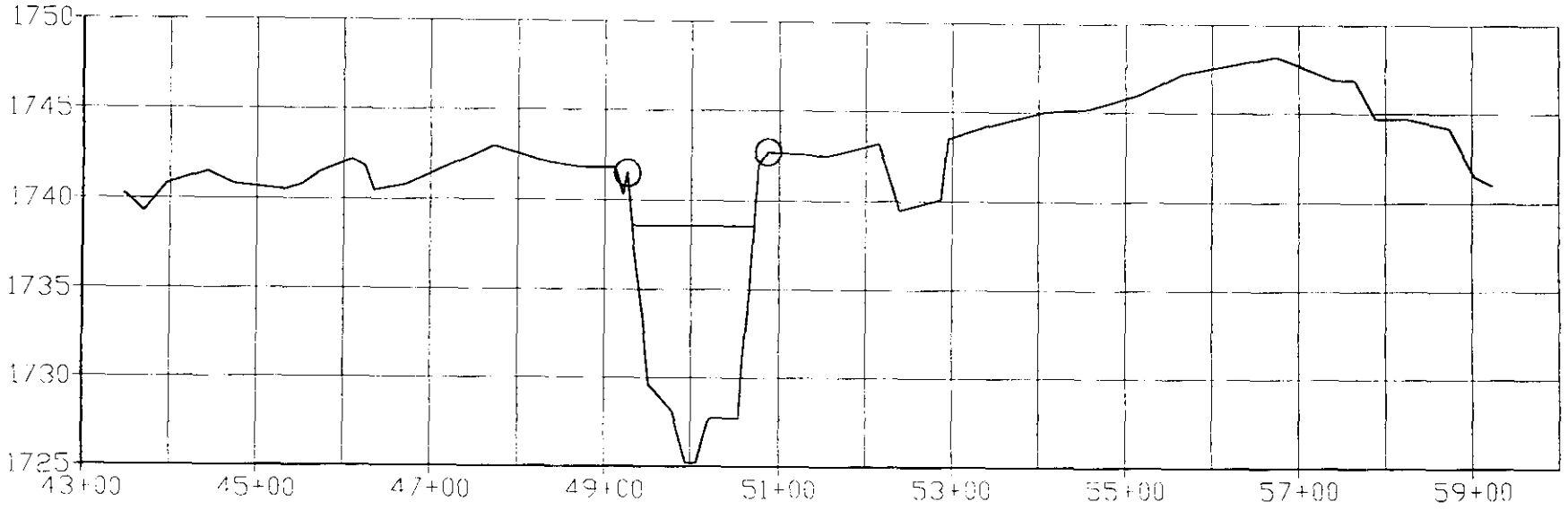
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1736.40 ft



480

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1738.57 ft

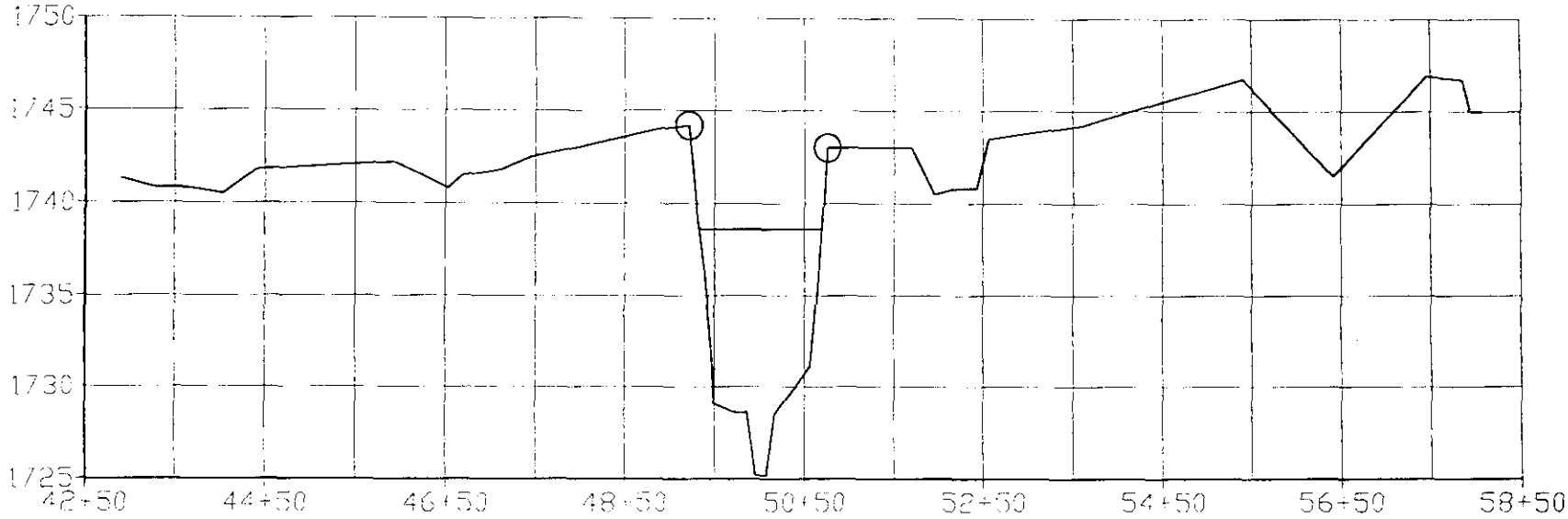
Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1738.57 ft



481

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1738.55 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1738.55 ft



482

Profile 2
Flow Discharge = 5993.00 cfs
- - - FLOODWAY WSEL = 1738.60 ft

Profile 3
Flow Discharge = 5993.00 cfs
——— 100-YEAR WSEL, UNENCROACHED = 1738.60 ft

HYDRAULIC ANALYSES

Profiles
LV.DAT

2Ba4 CID32003 001

Study Contractor: Nolte & Associates, Inc.

WATER SURFACE PROFILES

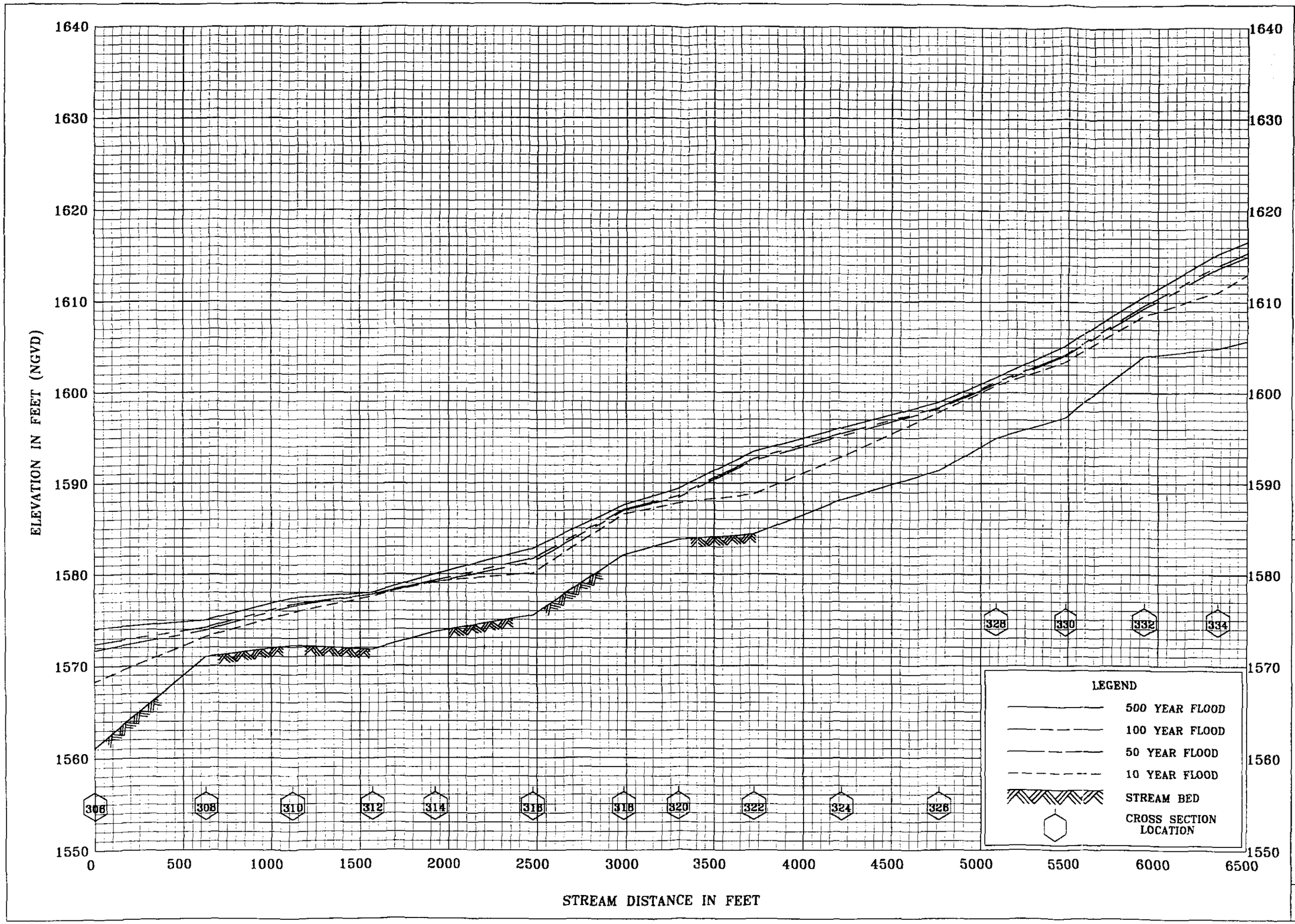
FIS PLOT INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Duck Creek to Charleston Blvd.	2Ba4 CID 32003	002



FLOOD PROFILES

LAS VEGAS WASH - DUCK CK. TO CHARLESTON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

1P

ELEVATION IN FEET (NGVD)

1670
1660
1650
1640
1630
1620
1610
1600
1590
1580

6500 7000 7500 8000 8500 9000 9500 10000 10500 11000 11500 12000 12500 13000

STREAM DISTANCE IN FEET

336 338 340 342 344 346 348 350 352 354 356

358 359 359.1 360 361 362

LEGEND

- 500 YEAR FLOOD
- 100 YEAR FLOOD
- 50 YEAR FLOOD
- 10 YEAR FLOOD
- STREAM BED
- CROSS SECTION LOCATION

FLOOD PROFILES

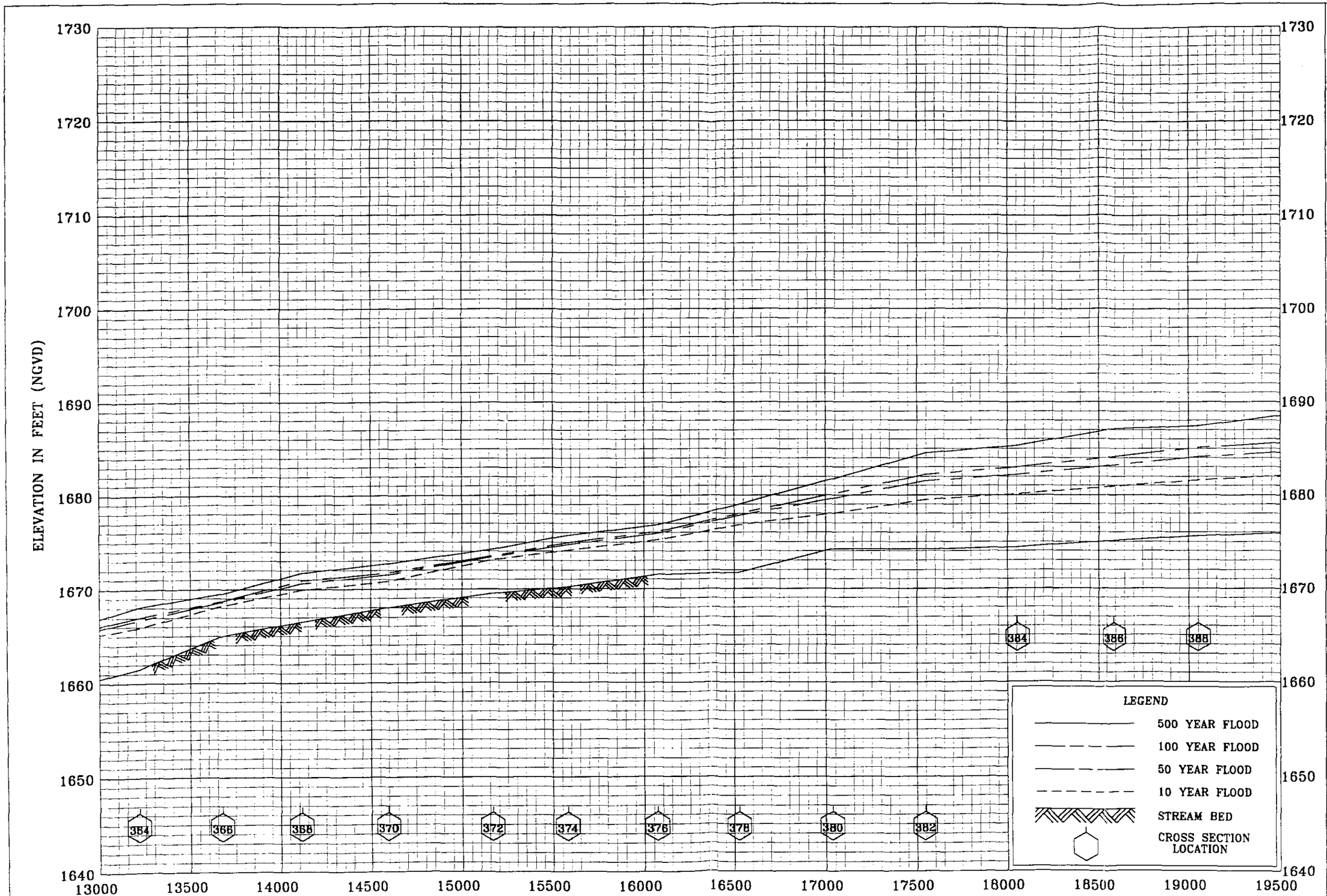
LAS VEGAS WASH - DUCK CK. TO CHARLESTON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

2P



FLOOD PROFILES

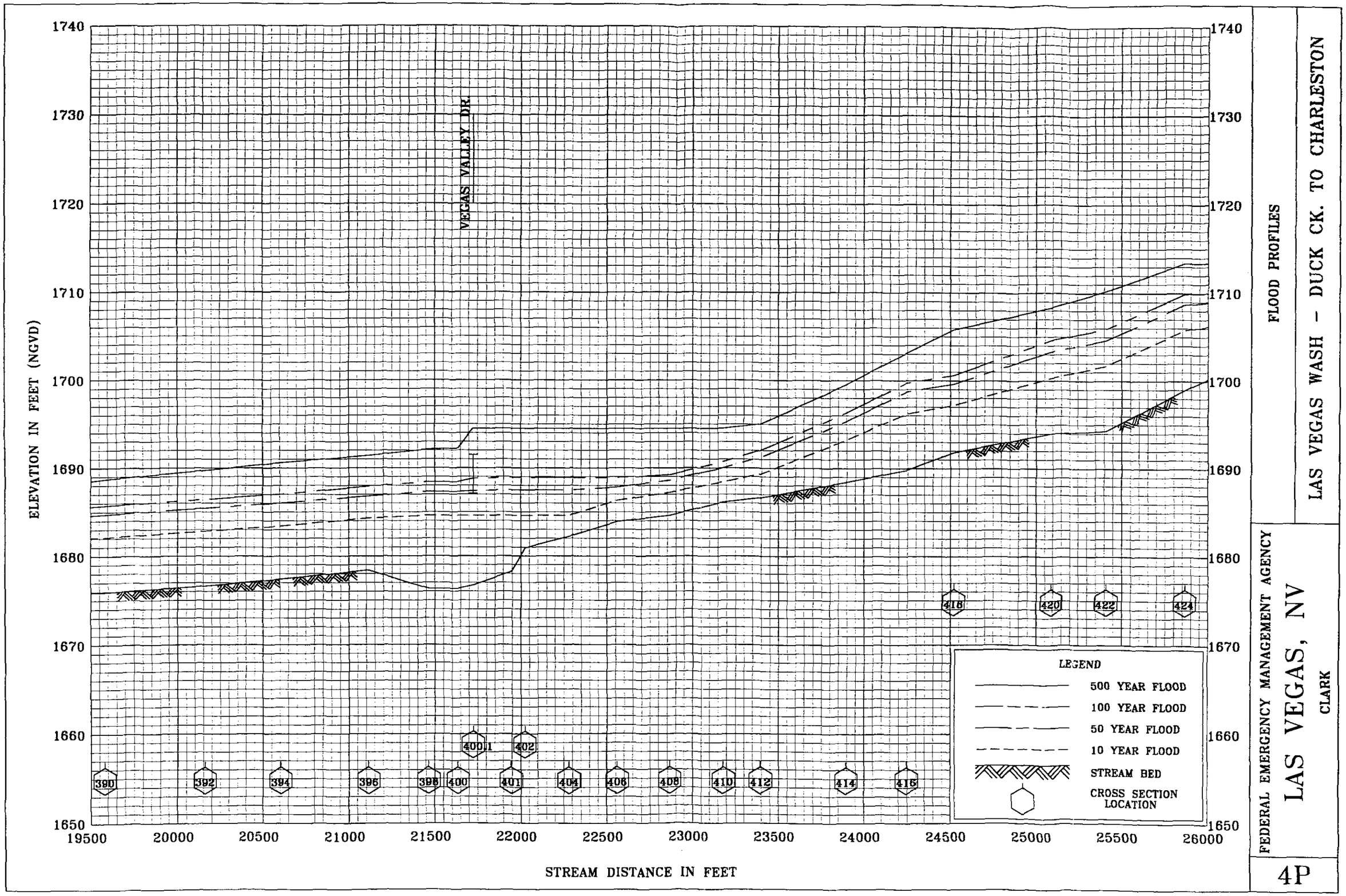
LAS VEGAS WASH – DUCK CK. TO CHARLESTON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

3P



FLOOD PROFILES

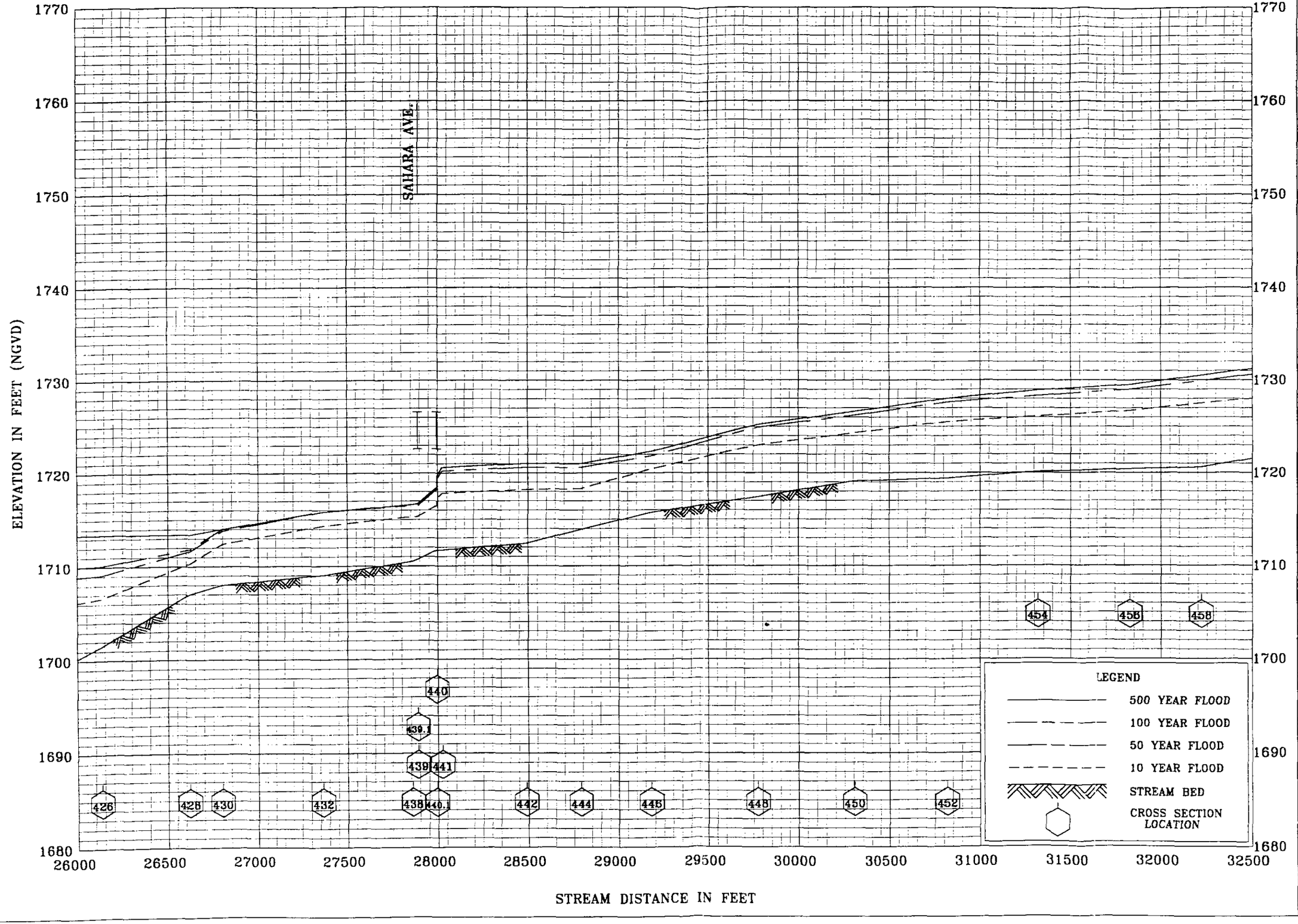
LAS VEGAS WASH – DUCK CK. TO CHARLESTON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

4P



FLOOD PROFILES

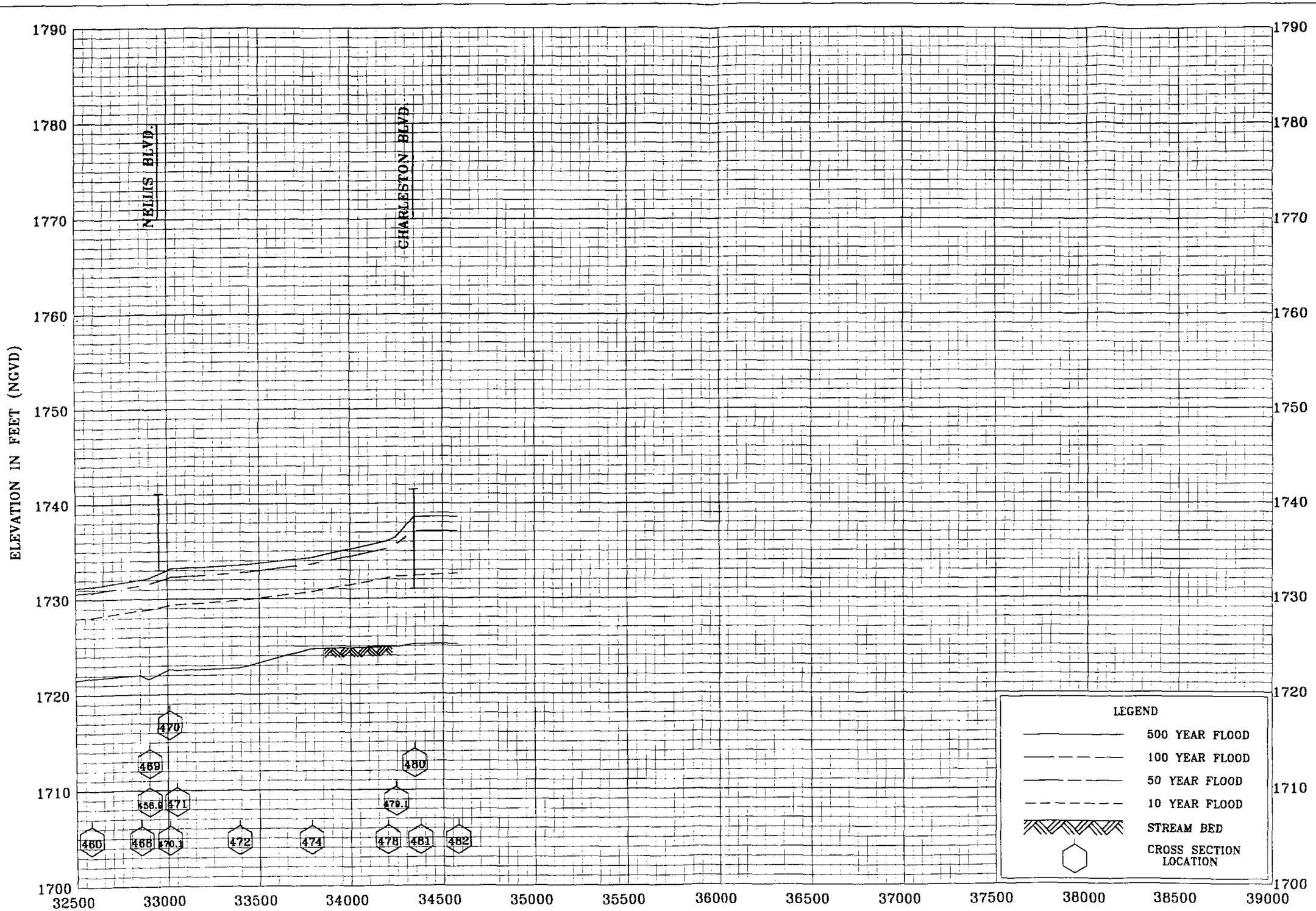
LAS VEGAS WASH – DUCK CK. TO CHARLESTON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

5P



FLOOD PROFILES

LAS VEGAS WASH – DUCK CK. TO CHARLESTON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAS VEGAS, NV

CLARK

6P

Federal Emergency Management Agency

Washington, D.C. 20472

JUN 30 1992

Ms. Carla Pearson
Clark County Community
Development Division
401 South Fourth Street
Las Vegas, Nevada 89101

IN REPLY REFER TO:
Case No.: 92-09-131G
Map Panel Affected: 1250 B

T-218-65-RS

Dear Ms. Pearson:

This is in reference to a letter dated May 22, 1992, from Mr. Steven J. Jackson of C. C. Wallace, Inc., requesting that the Federal Emergency Management Agency (FEMA) determine whether the following property is located in a Special Flood Hazard Area (SFHA), an area that would be inundated by the 100-year (1-percent annual chance) flood. This property has been elevated by the placement of fill.

Property Description: Lots 85 through 90, Block 7, and Lots 21 through 38, Block 11, Collage II, Phase I, as shown on the Plat Map recorded as Instrument No. 00685, Official Records Book No. 911205, in Book 51, Page 33, in the Office of the Recorder, Clark County, Nevada

Community: Clark County

State: Nevada

On June 1, 1992, we received all information necessary to process Mr. Jackson's request. After comparing this information with the National Flood Insurance Program (NFIP) map for your community, we determined that although portions of the lots would be inundated by a 100-year flood, the existing structures on these lots would not be inundated. Therefore, this letter revises the map for Clark County, Nevada (NFIP Map Number 320003, Panel 1250 B, dated September 29, 1989), removing the above-mentioned structures from the SFHA. Because portions of the lots are in the SFHA, any future construction or substantial improvement on these lots remains subject to Federal, State, and local regulations for floodplain management.

Please note that these lots could be inundated by a flood greater than a 100-year flood or by local flooding conditions not shown on the NFIP map. Flood insurance is available at reduced cost for properties located outside the SFHA. Also, although we have based our determination on the flood information presently available, flood conditions may change or new information may be generated that could supersede this determination.

This Letter of Map Revision (LOMR) will not be printed and distributed to primary map users such as local insurance agents and mortgage lenders; therefore, the community will serve as a repository for these new data.

A copy of this LOMR is being sent to your community's official NFIP map repository where, in accordance with regulations adopted by your community when it made application to join the NFIP, it should be attached to the community's official record copy of the NFIP map which is available for public inspection.

We encourage you to disseminate the information reflected by this LOMR widely throughout the community in order that interested persons such as property owners, insurance agents, and mortgage lenders may benefit from this information. We also encourage you to consider preparing an article for publication in the community's local newspaper that would describe the changes that have been made and the assistance the community should provide in serving as a clearinghouse for these data and interpreting NFIP maps.

In order to ensure continued eligibility to participate in the NFIP, your community must enforce its floodplain management regulations using, at a minimum, the flood elevations and zone designations shown on your community's NFIP map, including the revisions effected by this letter. This response to your request is based on the minimum criteria established by the NFIP. State and community officials, based on knowledge of local conditions and in the interest of public safety, may set higher standards for construction in the floodplain. If the State of Nevada or your community have adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum Federal criteria.

This revision has been made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 92-234) and is in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448) 42 U.S.C. 4001-4128, and 44 CFR Part 65.

This revision is effective as of the date of this letter. However, a request for reconsideration may be made within 30 days. Any requests for reconsideration must be based on scientific or technical data.

Please note that FEMA is currently developing detailed application and certification forms for use in requesting revisions or amendments to NFIP maps. Forms will be available this summer and will be used for requests received by FEMA on or after October 1, 1992. These forms will highlight technical considerations in a fashion that facilitates an efficient review; therefore, use of these forms prior to October 1 is strongly recommended. Application forms should be available after July 1 for Letter of Map Amendment and LOMR Based on Fill requests, and after September 1 for the more common types of revision requests.

In the near future, we plan to conduct a restudy of the flood hazards in the Las Vegas Valley area and are now working with the Clark County Regional Flood Control District to obtain appropriate peak discharge values for use in the restudy. Therefore, our restudy may be based on discharge values other than those used in the hydraulic analysis for this project.

If you have any questions or if we can be of further assistance, please call Ms. Cecelia Lynch at (202) 646-2747.

Sincerely,

Jack F. Flowers for

Pay L. Davis, Acting Chief
Technical Operations Division
Federal Insurance Administration

cc: Mr. Gale Wm. Fraser II, P.E.
Assistant District Manager
Clark County Regional Flood Control District

Mr. Steven J. Jackson
G. C. Wallace, Inc.

Federal Emergency Management Agency

Washington, D.C. 20472

OCT 26 1993 NOV 1 1993

Ms. Carla Pearson
Clark County Department of
Public Works
Community Development Division
401 South Fourth Street
Las Vegas, Nevada 89101

IN REPLY REFER TO:
Case No.: 93-09-773A
Community: Clark County, Nevada
Community No.: 320003
Map Panel Affected: 1250 B

I-216-65-ES

Dear Ms. Pearson:

This is in response to a letter dated September 2, 1993, from Mr. Steven Jackson, G. C. Wallace, Inc., requesting that the Federal Emergency Management Agency determine whether the following property is located in a Special Flood Hazard Area (SFHA), an area that would be inundated by the 100-year (1-percent annual chance) flood. This property has been elevated by the placement of fill.

Property Description: Lots 95 through 100, Block 7, Collage II-Phase [illegible] as shown on the Plat Map recorded as Book 51, Page 33, in the Office of the Recorder, Clark County, Nevada

Community: Clark County

[illegible] Agency

All fees necessary to process this Letter of Map Revision (LOMR), a total of $200, have been received.

On September 8, 1993, we received all information necessary to process Mr. Jackson's request. After comparing this information to the National Flood Insurance Program (NFIP) map for your community, we have determined that although portions of the property described above would be inundated by a 100-year flood, the existing structures on the property would not be inundated. Therefore, this letter revises the map for Clark County, Nevada (NFIP Map [illegible], Panel 1250 B, dated September 29, 1989), to remove the structures from the SFHA. The structures are now in Zone X (unshaded), an area consisting of land lying outside the 500-year floodplain. Because portions of the property are in the SFHA, any future construction or substantial improvement on the property remains subject to Federal, State, and local requirements for floodplain management.

You should be aware that this property could be inundated by a flood greater than the 100-year flood or by local flooding conditions not shown on the NFIP map. Also, although we have based our determination on the information presently available, we are currently revising the National Flood Insurance Program (NFIP) maps for Clark County, Nevada. New flood data could be generated that

may affect this property. When the new NFIP maps are issued, they will supersede this letter. The Federal requirement for purchasing flood insurance will then be based on the newly issued NFIP maps.

Please be advised that the NFIP offers a policy designed for one- to four-family homes in areas which are not designated as Special Flood Hazard Areas, but where flood exposure still represents a significant risk. This policy is the Preferred Risk Policy. It is a comprehensive policy that is available to property owners in B, C, and X zones only. Information about the Preferred Risk Policy and how one can qualify is enclosed.

To ensure continued eligibility to participate in the NFIP, your community must enforce its floodplain management regulations using, at a minimum, the flood elevations and zone designations shown on the NFIP map for your community, including the revision effected by this letter. This response is based on the minimum criteria established by the NFIP. State and community officials, based on knowledge of local conditions and in the interest of public safety, may set higher standards for construction in the floodplain. If the State of Nevada or your community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum Federal criteria.

This revision has been made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and is in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448) 42 U.S.C. 4001-4128, and 44 CFR Part 65.

This LOMR will not be printed and distributed to primary map users such as local insurance agents and mortgage lenders; therefore, your community will serve as a repository for these new data. We encourage you to disseminate the information reflected by this LOMR widely throughout your community in order that interested persons, such as property owners, insurance agents, and mortgage lenders, may benefit from this information. We also encourage you to consider preparing an article for publication in your community's local newspaper that would describe the changes that have been made and the assistance your community will provide in serving as a clearinghouse for these data and interpreting NFIP maps. When, in the future, a sufficient number of revisions have occurred on the affected panel(s), we will initiate a physical map revision to republish and distribute the panel(s) to incorporate the changes that were made effective by letter.

A copy of this LOMR is being sent to your community's official NFIP map repository where, in accordance with regulations adopted by your community when it made application to join the NFIP, it should be attached to the community's official record copy of the NFIP map, which is available for public inspection.

If you have any questions or if we can be of further assistance, please contact Ms. Cecelia Lynch at (202) 646-2747, or by facsimile at (202) 646-3445.

Sincerely,

Gil H. Jamieson, Chief
Technical Operations Division
Federal Insurance Administration

cc: Community Map Repository

Mr. Gale Wm. Fraser, P.E.
Clark County Regional Flood
Control District

Mr. Steven Jackson
G. C. Wallace, Inc.

Federal Emergency Management Agency

Washington, D.C. 20472

APR 29 91

Mr. William C. Brandt
Stormwater Management Unit
Supervisor
Clark County Department
of Public Works
401 South Fourth Street
Las Vegas, Nevada 89101

IN REPLY REFER TO:
T-218-65-E
Map Panel Affected: 1250 E

Dear Mr. Brandt:

This is in reference to a letter dated March 27, 1991, from Mr. Steven Jackson of G. C. Wallace, Inc., Las Vegas, Nevada, requesting that the Federal Emergency Management Agency determine whether the following property is located in a Special Flood Hazard Area (SFHA), an area that would be inundated by the 100-year (1-percent annual chance) flood. This property has been elevated by the placement of fill.

Property Description: Lots 40 through 61, Block 10, Phase 2, and Lots 3 through 20, Block 11, Phase 3, Collage Pacific Properties, Unit No. 2, previously known as Lots 40 through 61, Block 10, and Lots 3 through 20, Block 11, Unit 2, Pardee—Winterwood, respectively, as recorded in Book 23, Page 49, of Plats, Official Records Book 980, in the Office of the Recorder, Clark County, Nevada

Community: Clark County

State: Nevada

On April 9, 1991, we received all information necessary to process the request. After comparing this information with the National Flood Insurance Program (NFIP) map for Clark County, Nevada, we determined that although portions of the above-mentioned lots would be inundated by a 100-year flood, the existing structures on these lots would not be inundated. Therefore, this letter revises the map for Clark County, Nevada (NFIP Map Number 320003, Panel 1250 E, dated September 29, 1989), removing the above-mentioned structures from the SFHA. Because portions of the property are in the SFHA, any future construction or substantial improvement on this property remains subject to Federal, State, and local regulations for floodplain management. In accordance with our regulations, this letter must be attached to the copy of the NFIP map maintained in your files.

Please note that these lots could be inundated by a flood greater than a 100-year flood or by local flooding conditions not shown on the NFIP map. Flood insurance is available at reduced cost for properties located outside the SFHA. Also, although we have based our determination on the flood information presently available, flood conditions may change or new information may be generated that could supersede this determination.

This Letter of Map Revision (LOMR) will not be printed and distributed to primary map users such as local insurance agents and mortgage lenders; therefore, the community will serve as a repository for these new data. We encourage you to disseminate the information reflected by this LOMR widely throughout the community in order that interested persons such as property owners, insurance agents, and mortgage lenders may benefit from this information. We also encourage you to consider preparing an article for publication in the community's local newspaper that would describe the changes that have been made and the assistance the community will provide in serving as a clearinghouse for these data and interpreting NFIP maps.

In order to ensure continued eligibility to participate in the NFIP, your community must enforce its floodplain management regulations using, at a minimum, the flood elevations and zone designations shown on your community's NFIP map, including the revisions effected by this letter.

This revision has been made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 92-234) and is in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448) 42 U.S.C. 4001-4128, and 44 CFR Part 65.

This revision is effective as of the date of this letter. However, a request for reconsideration may be made within 30 days. Any requests for reconsideration must be based on scientific or technical data.

In the near future, we plan to conduct a restudy of the flood hazards in the Las Vegas Valley area and are now working with the Clark County Regional Flood Control District to obtain appropriate peak discharge values for use in the restudy. Therefore, our restudy may be based on discharge values other than those used in the hydraulic analysis for this project.

If you have any questions or if we can be of further assistance, please call us at (202) 646-2764.

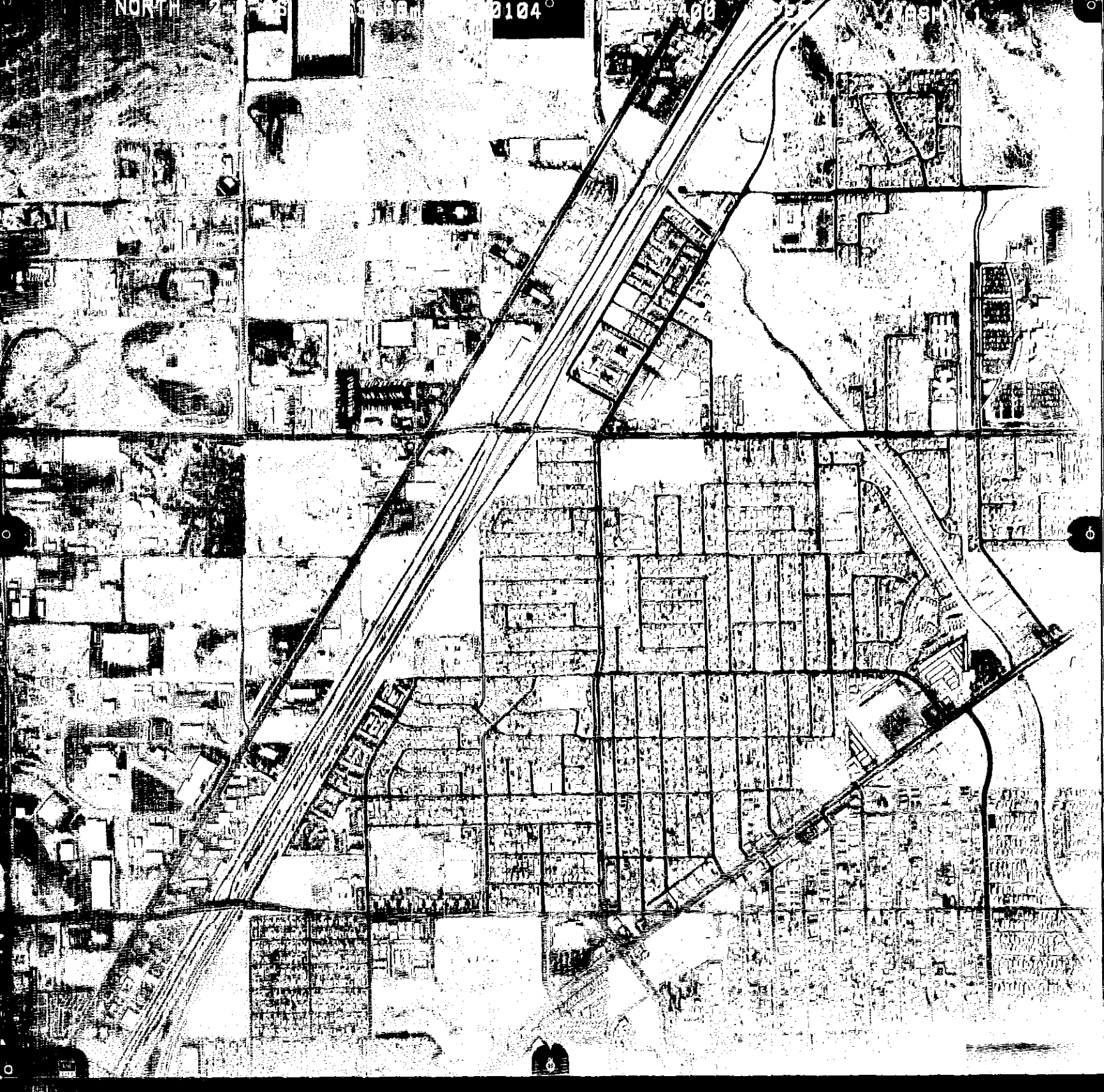
Sincerely,

Charles A. Lindley, Chief
Technical Operations Division
Federal Insurance Administration

cc: State Coordinator

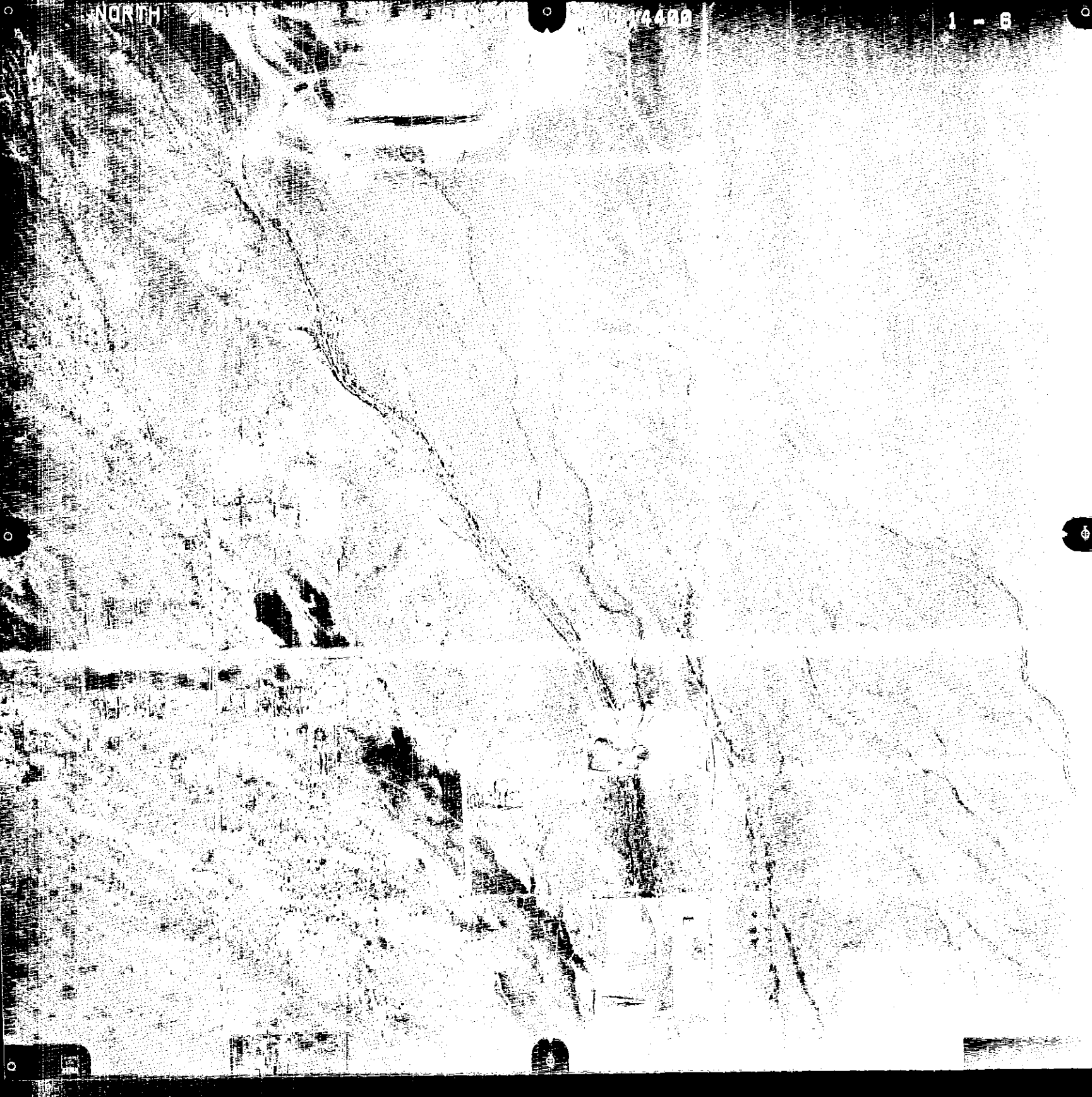
Mr. Steven Jackson
G. C. Wallace, Inc.

Mr. Gale Wm. Fraser II, P.E.
Assistant General Manager
Clark County Regional Flood
Control District

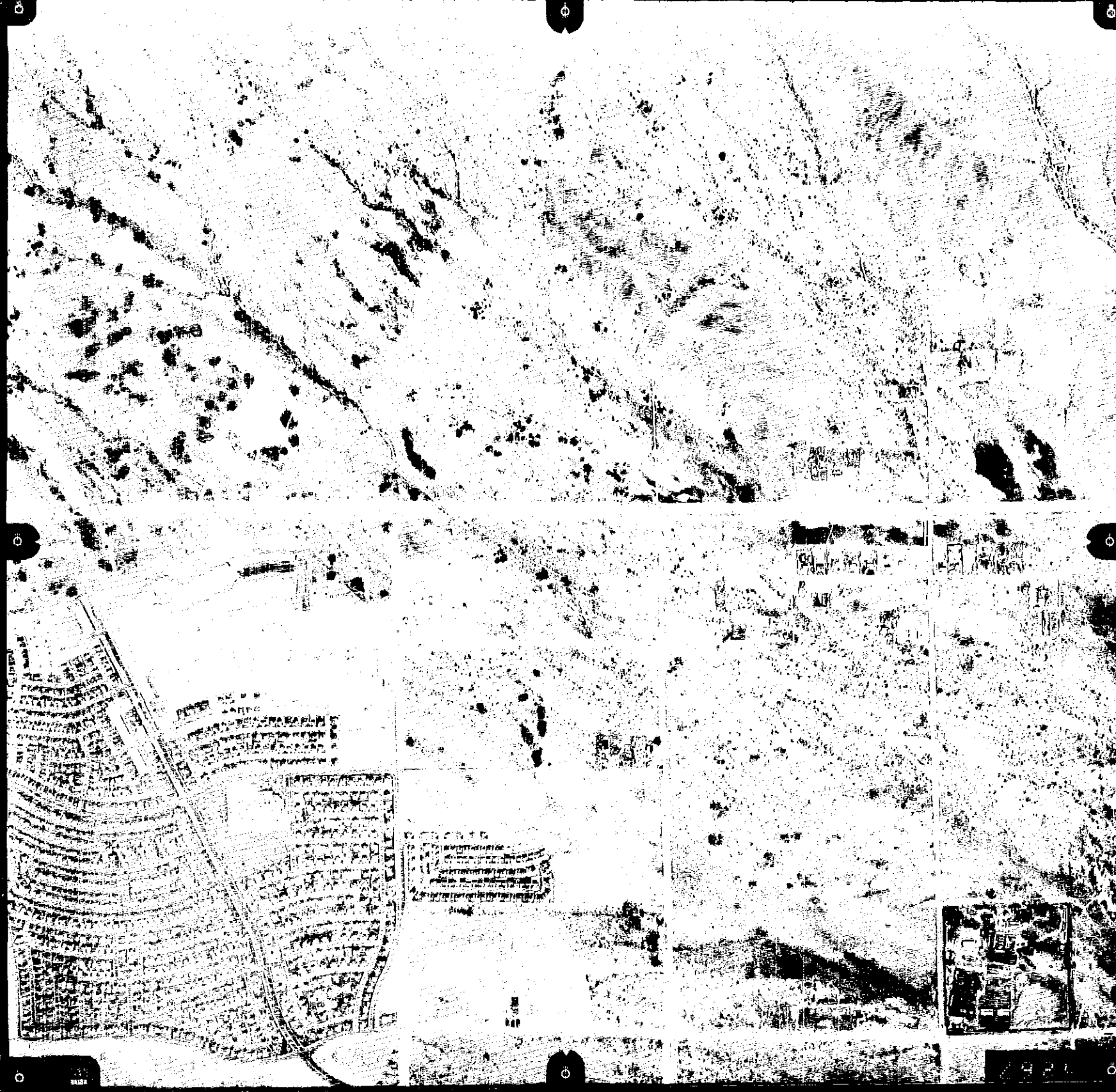


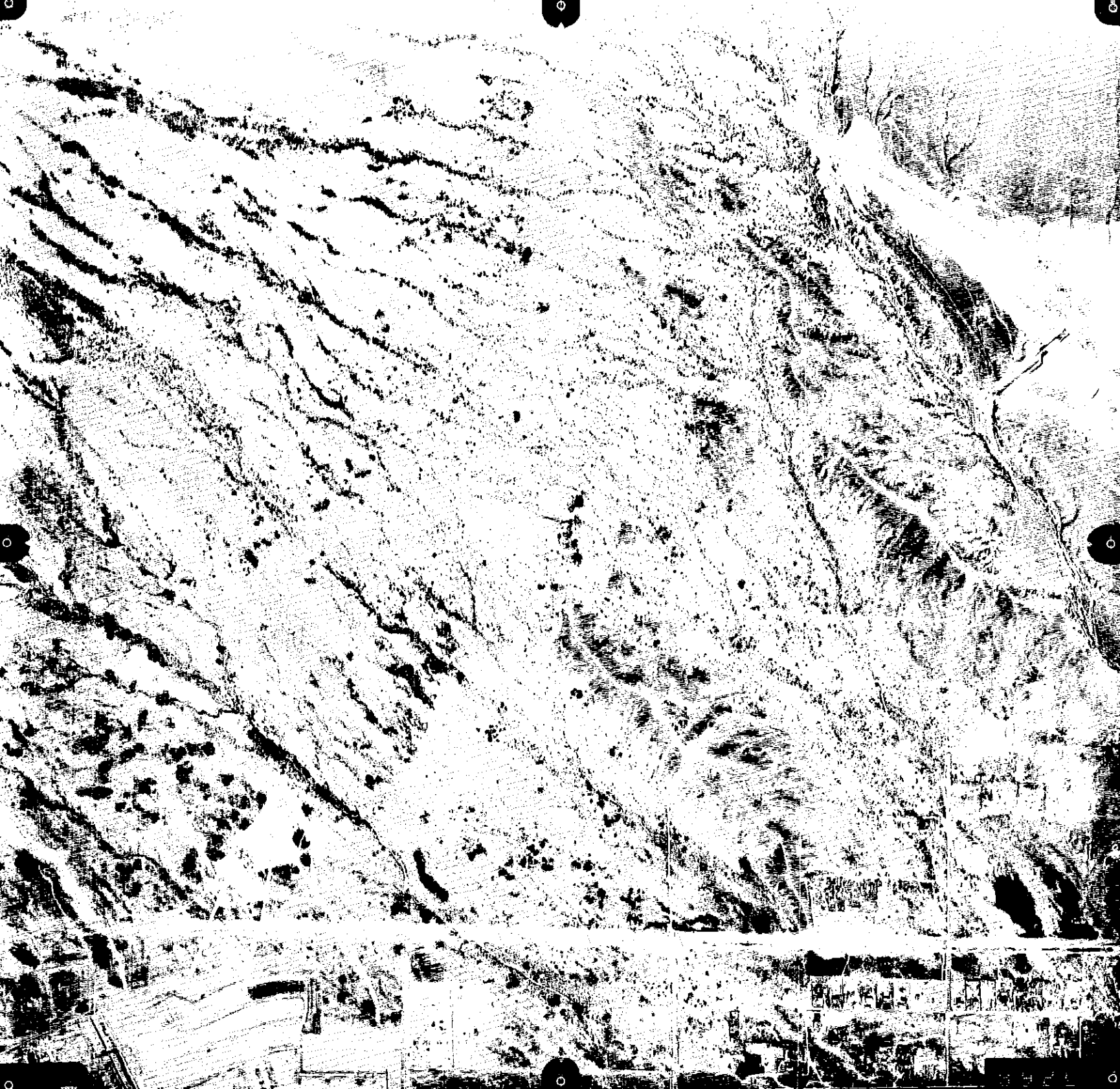
NORTH
B-88

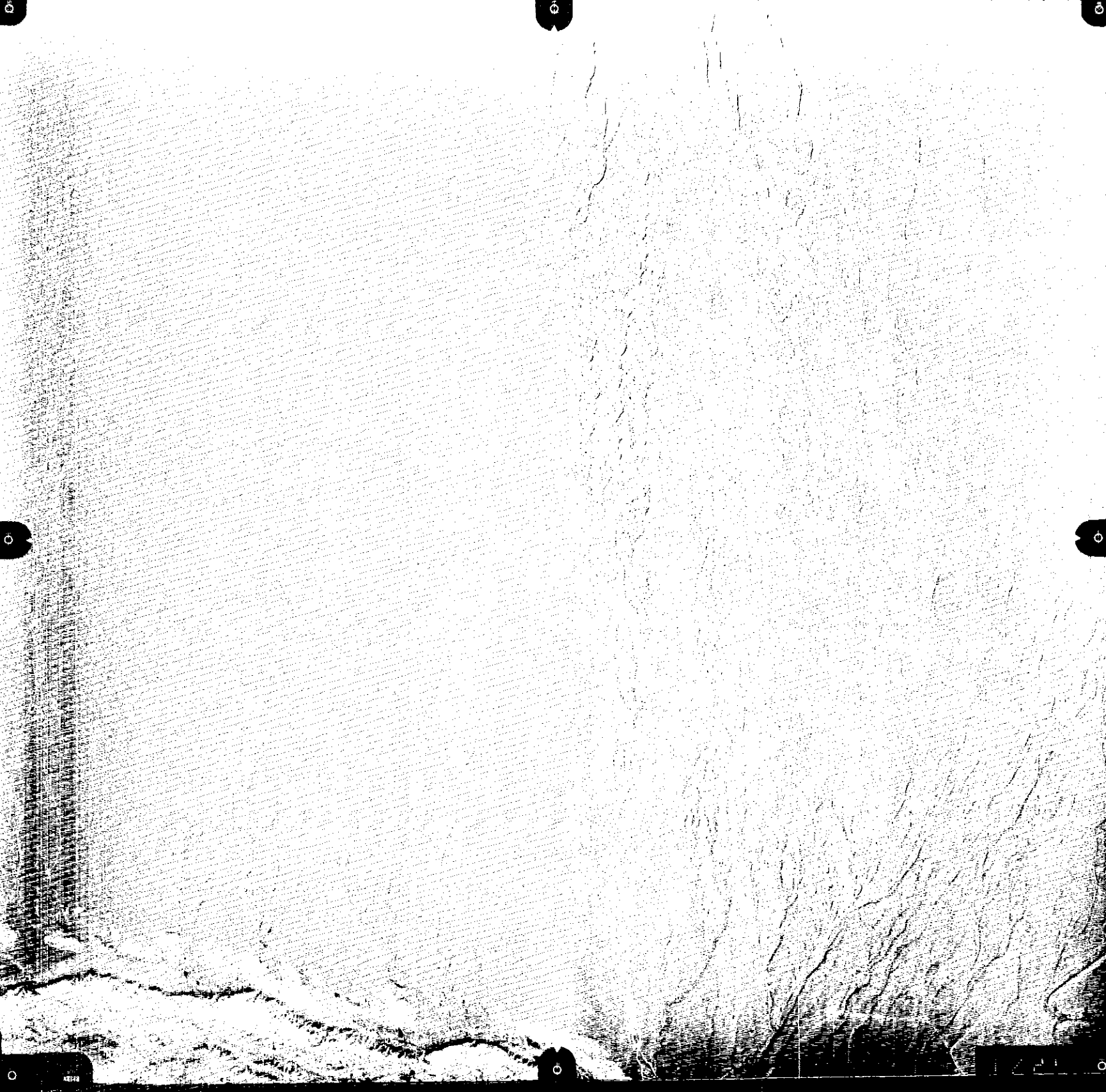
NORTH

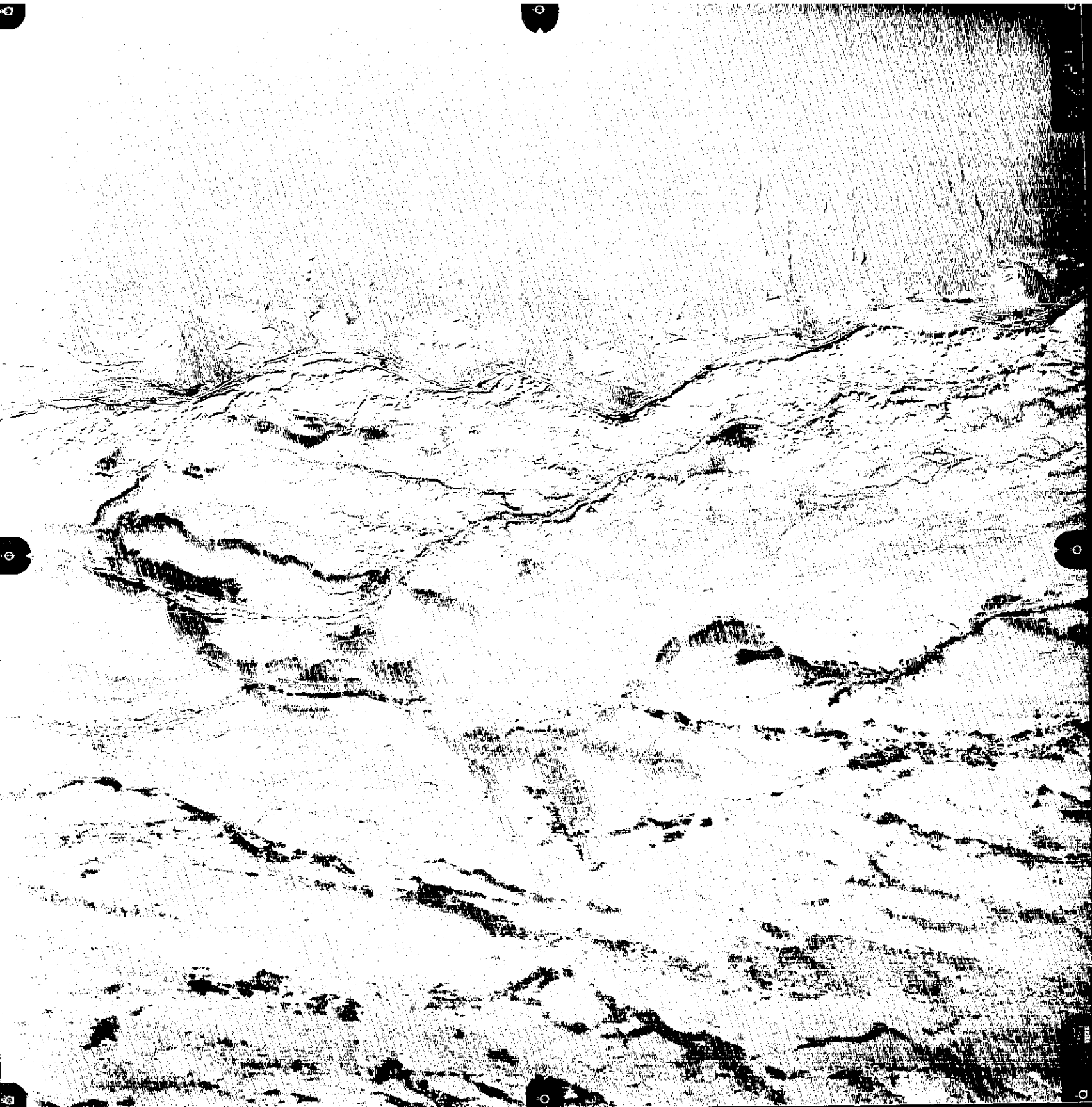

NORTH
1 - 6

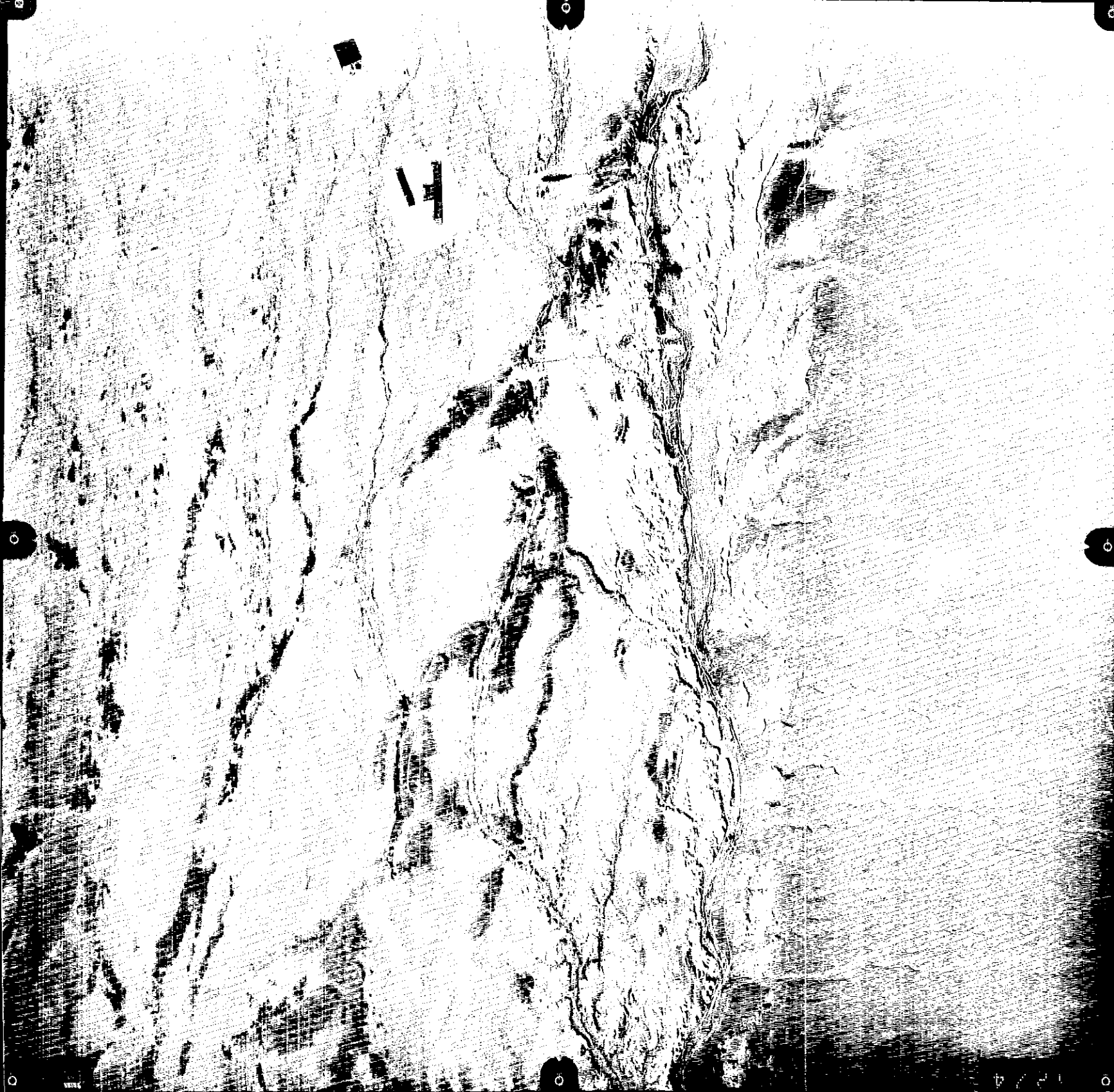
NORTH 2-8-98 960104 1:14400 1 - 7

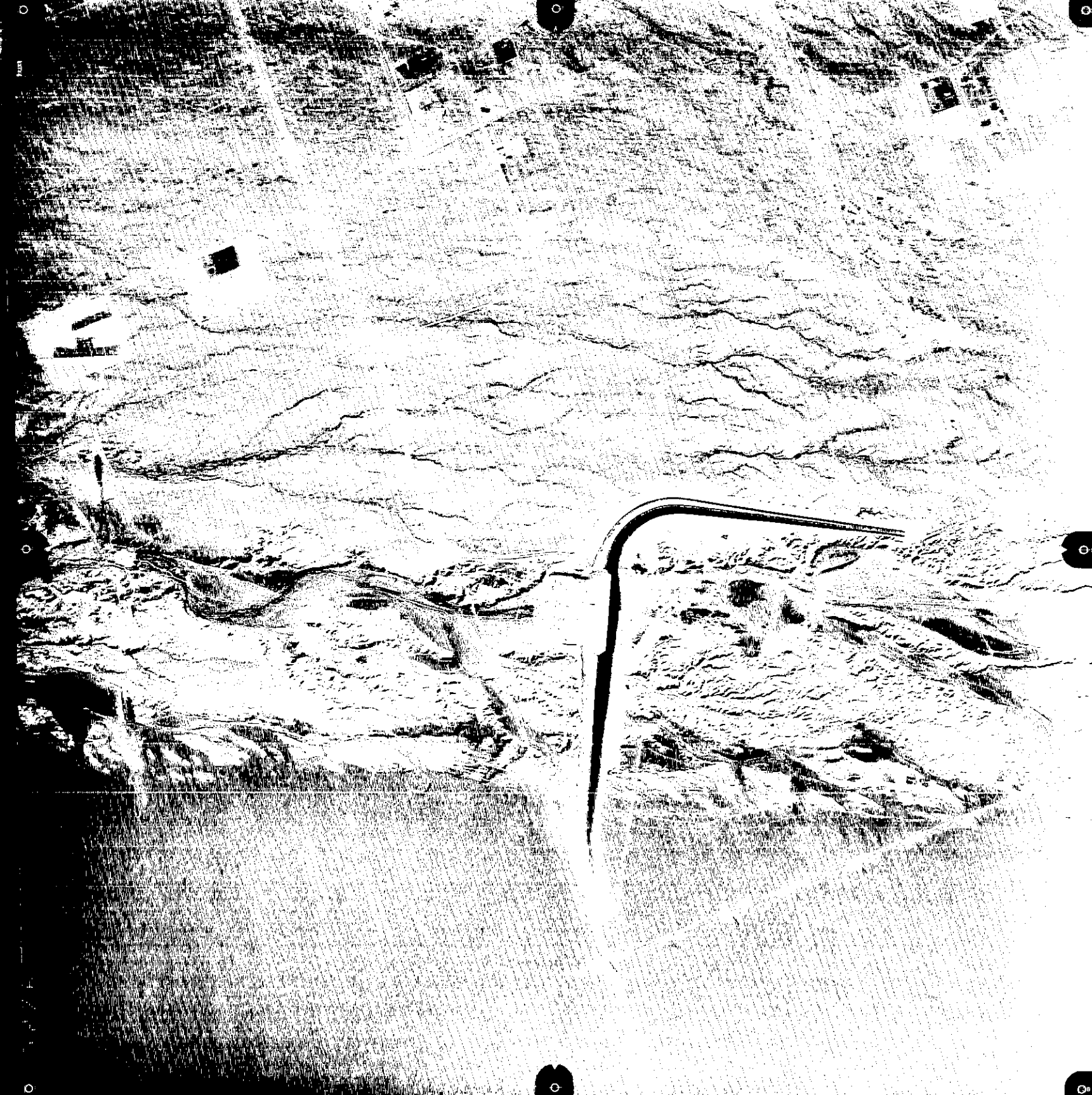


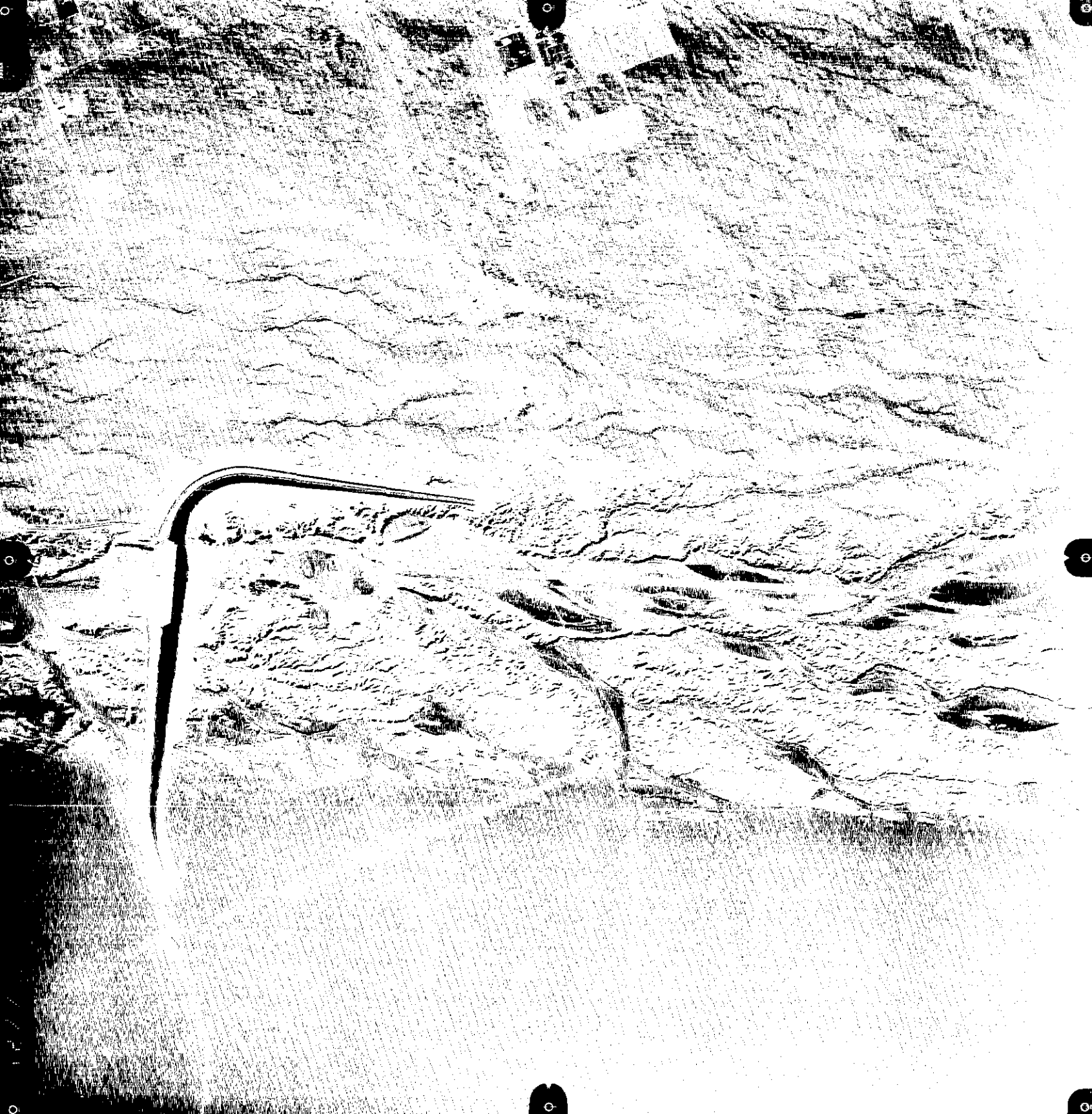


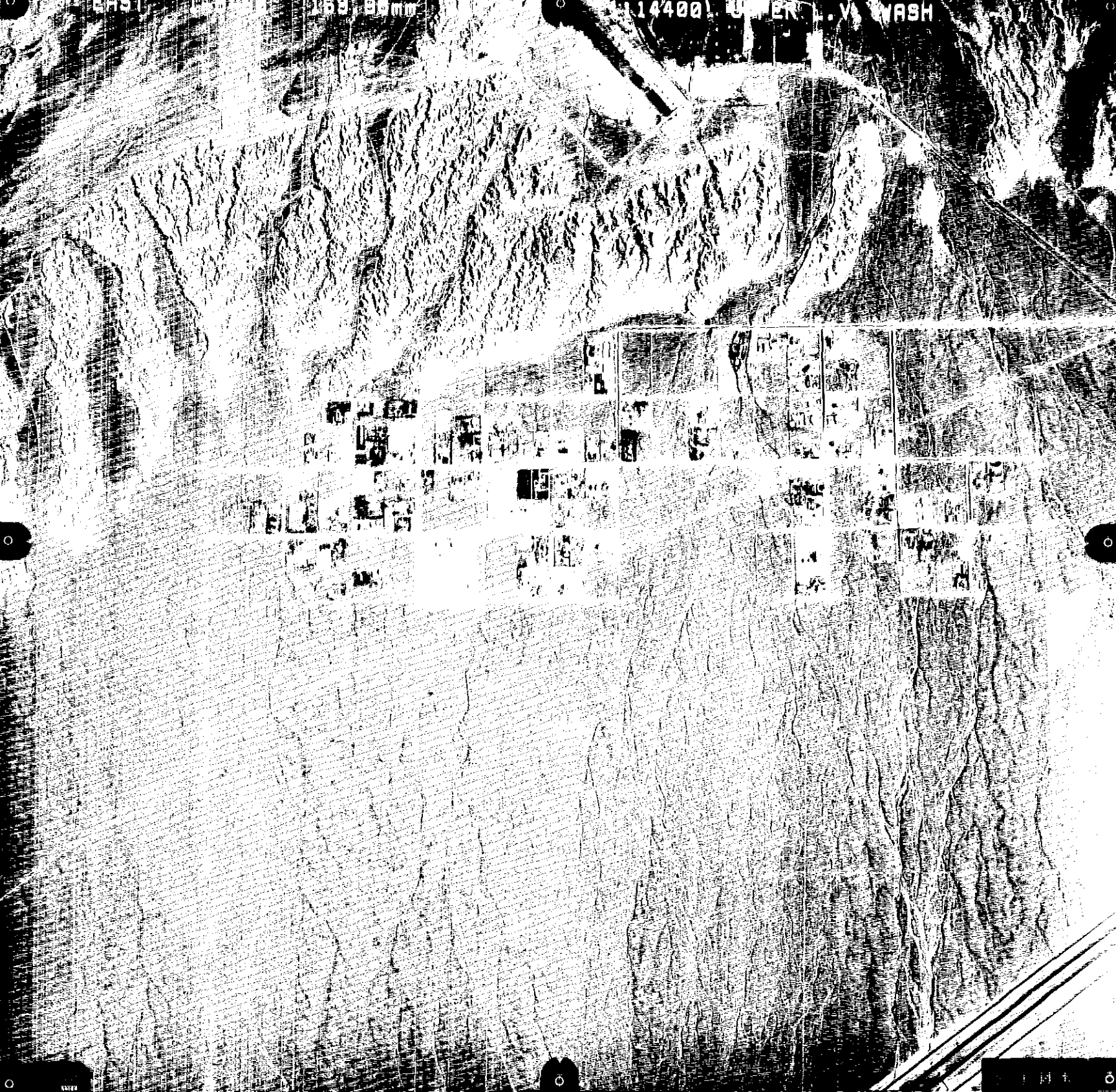


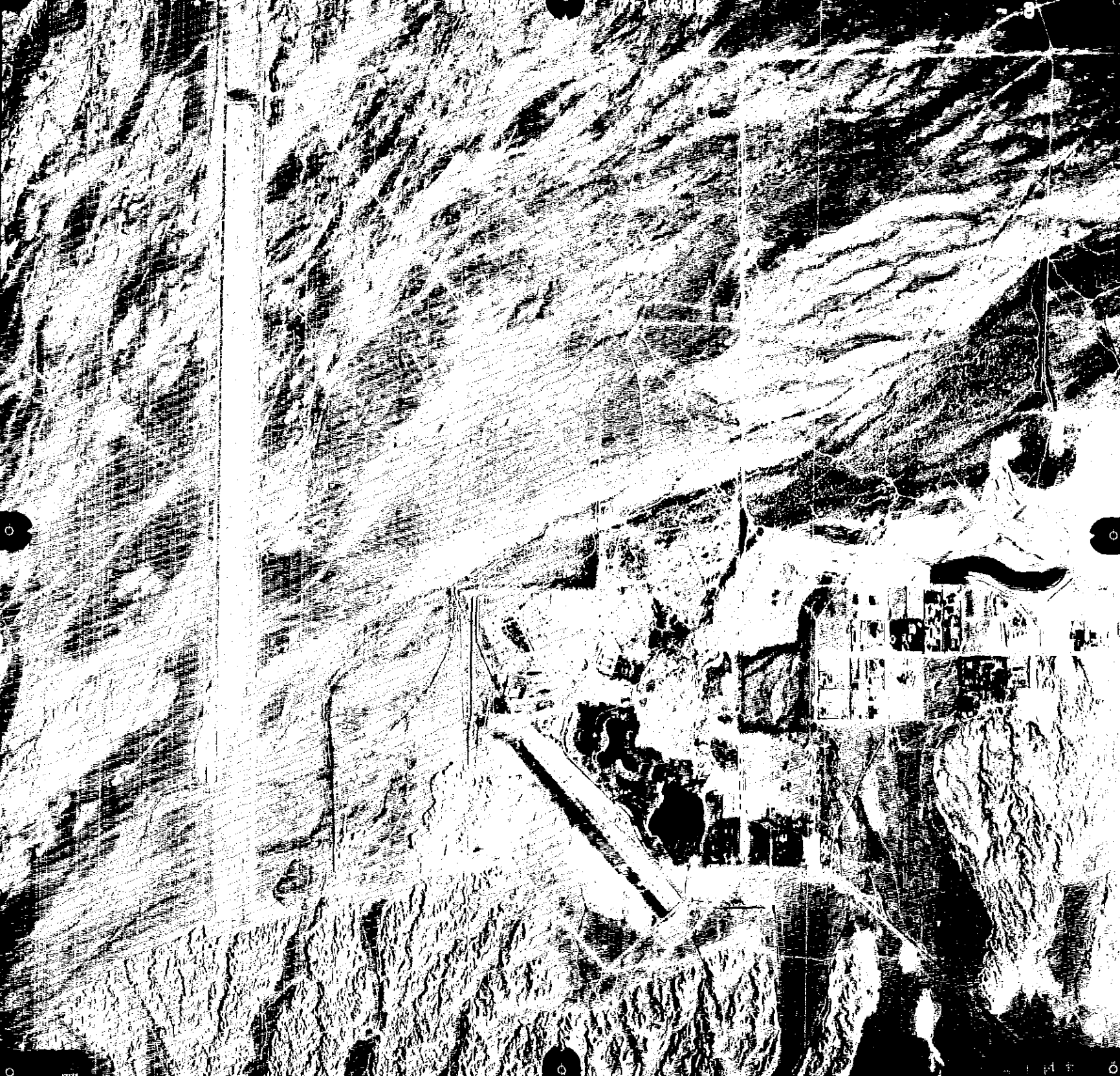








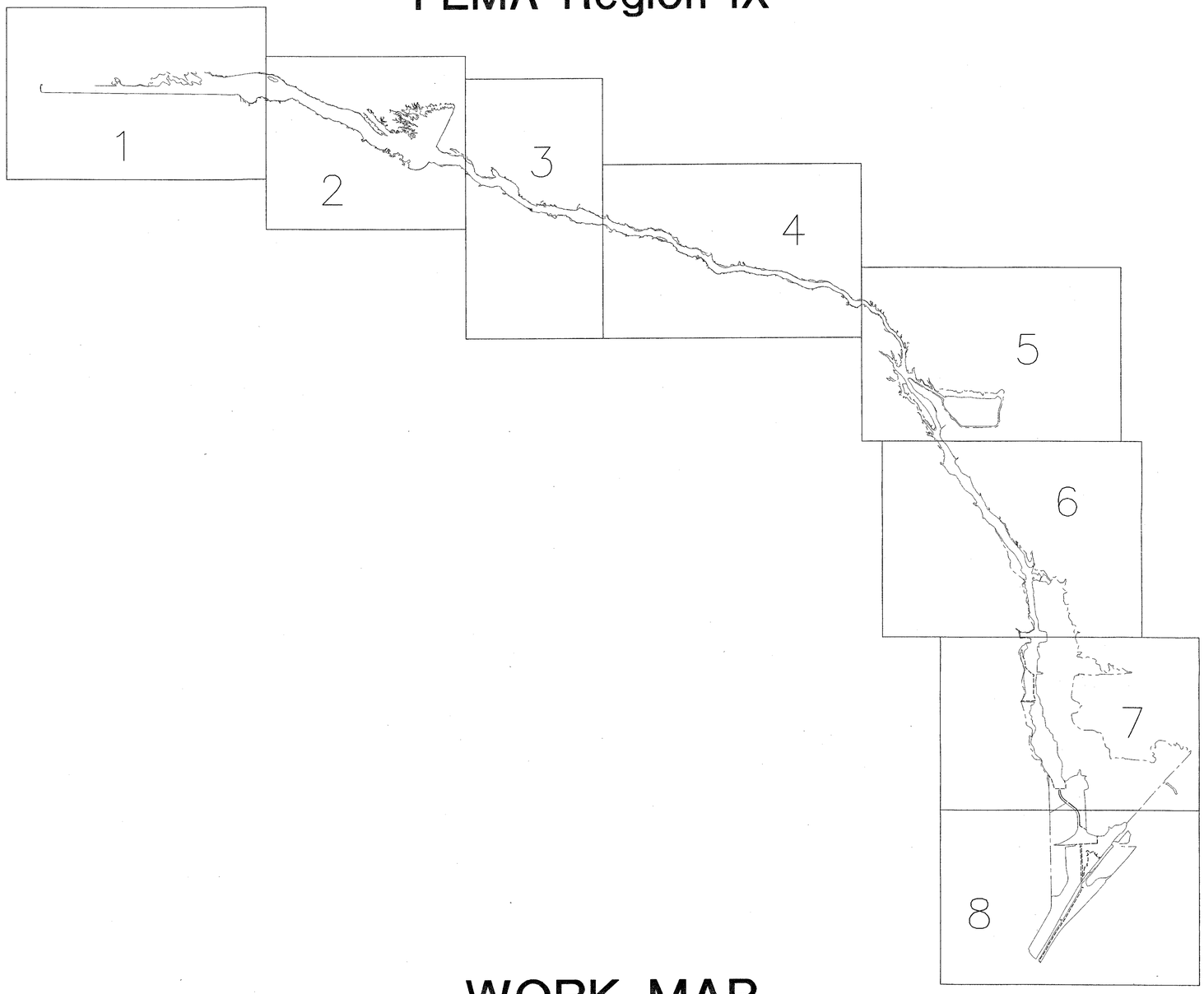

EAST
14400 U ER L.V WASH



EAST 1-9-90
14400
- 5

1:14400
UPPER
WASH

Flood Insurance Study of City of Las Vegas, City of North Las Vegas, Unincorporated Areas of Clark County, Nevada
EMW-95-C-4840
FEMA Region IX



WORK MAP

UPPER LAS VEGAS WASH
WITHOUT NORTH LAS VEGAS DETENTION BASIN DIVERSION DIKE

JOB NUMBER: 50010.10

KENNEY AERIAL MAPPING
1130 West Fillmore
Phoenix, Arizona 85007

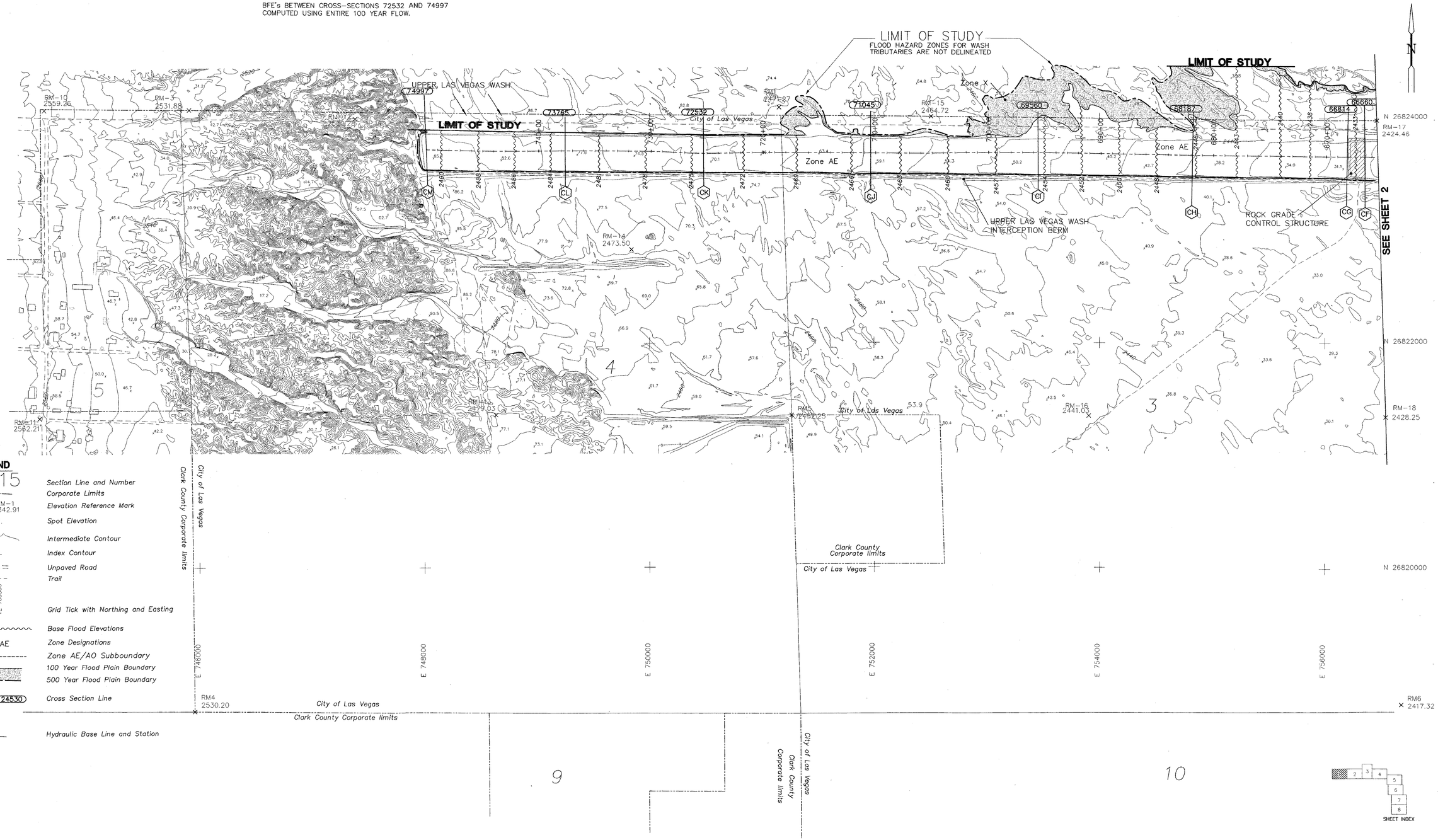
Aerial Photography Date: 2/96
Datum: NGVD 29
Contour Interval: 4'

AUG 7 1998

nhc
northwest hydraulic consultants inc.
3950 industrial boulevard, suite 100c
west sacramento, california 95691-3430
west sacramento tukwila
edmonton vancouver

RIVER ENGINEERING/ HYDRAULIC MODEL TESTING/ HYDRAULIC ANALYSIS AND DESIGN/ COASTAL ENGINEERING
HYDROLOGY/SEDIMENTATION ENGINEERING/NUMERICAL MODELING/APPLIED RESEARCH/FORENSIC ENGINEERING

NOTE:
BFE's BETWEEN CROSS-SECTIONS 72532 AND 74997
COMPUTED USING ENTIRE 100 YEAR FLOW.



LEGEND

15	Section Line and Number
	Corporate Limits
RM-1 × 2342.91	Elevation Reference Mark
67.8	Spot Elevation
	Intermediate Contour
2360	Index Contour
	Unpaved Road
	Trail
N 26818000 E 766000	Grid Tick with Northing and Easting
1952	Base Flood Elevations
Zone AE	Zone Designations
	Zone AE/AO Subboundary
	100 Year Flood Plain Boundary
	500 Year Flood Plain Boundary
AU 24530	Cross Section Line
1410+00	Hydraulic Base Line and Station

SHEET INDEX
2 3 4 5 6 7 8

REV.	DATE	DESCRIPTION	BY	APP'D

SCALE
HORIZ. 1"=400' VERT.

DRAWING FILE NAME: SHT1-WO.DWG

JOB NUMBER: 50010.10

KENNEY AERIAL MAPPING
1130 West Fillmore
Phoenix, Arizona 85007

Aerial Photography Date: 2/96
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HYDROLOGY/SEDIMENTATION ENGINEERING/NUMERICAL MODELING/APPLIED RESEARCH/FORENSIC ENGINEERING

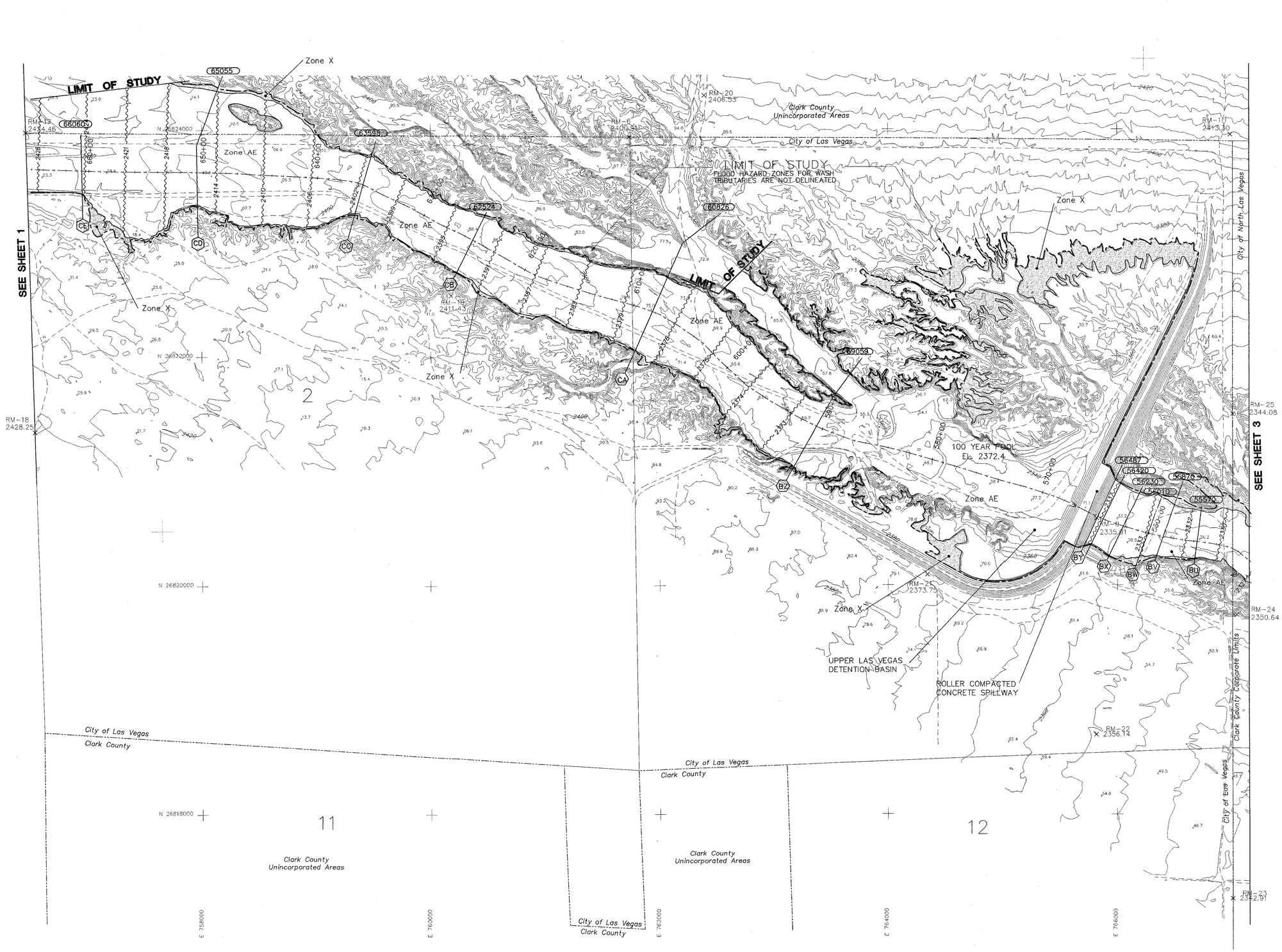
Flood Insurance Study of City of Las Vegas, City of North Las Vegas,
Unincorporated Areas of Clark County, NEVADA
EMW-95-C-4840
FEMA Region IX

WORK MAP

UPPER LAS VEGAS WASH
WITHOUT NORTH LAS VEGAS
DETENTION BASIN DIVERSION DIKE

SHEET 1 OF 8

DATE: 4/6/98



LEGEND

- 15 — Section Line and Number
- Corporate Limits
- RM-1 × 2342.91 — Elevation Reference Mark
- 57.8 — Spot Elevation
- Intermediate Contour
- 2360 — Index Contour
- Unpaved Road
- Trail
- N 26818000 / E 766000 — Grid Tick with Northing and Easting
- 1952 — Base Flood Elevations
- Zone AE — Zone Designations
- Zone AE/AO Subboundary
- 100 Year Flood Plain Boundary
- 500 Year Flood Plain Boundary
- AU — 24530 — Cross Section Line
- 410+00 — Hydraulic Base Line and Station

REV.	DATE	DESCRIPTION	BY	APP'D

SCALE
HORIZ. 1"=400' VERT. _____

DRAWING FILE NAME: SHT2-WO.DWG

JOB NUMBER: 50010.10

KENNEY AERIAL MAPPING
1130 West Fillmore
Phoenix, Arizona 85007

Aerial Photography Date: 2/96
Datum: NGVD 29
Contour Interval: 4'

nhc
northwest hydraulic consultants inc.
3950 industrial boulevard, suite 100c
west sacramento, california 95691-3430
west sacramento tukwila
edmonton vancouver
WATER ENGINEERING/ HYDRAULIC MODEL TESTING/ HYDRAULIC ANALYSIS AND DESIGN/ COASTAL ENGINEERING
HYDROLOGY/SEDIMENTATION ENGINEERING/NUMERICAL MODELING/ARTIFACT RESEARCH/FORENSIC ENGINEERING

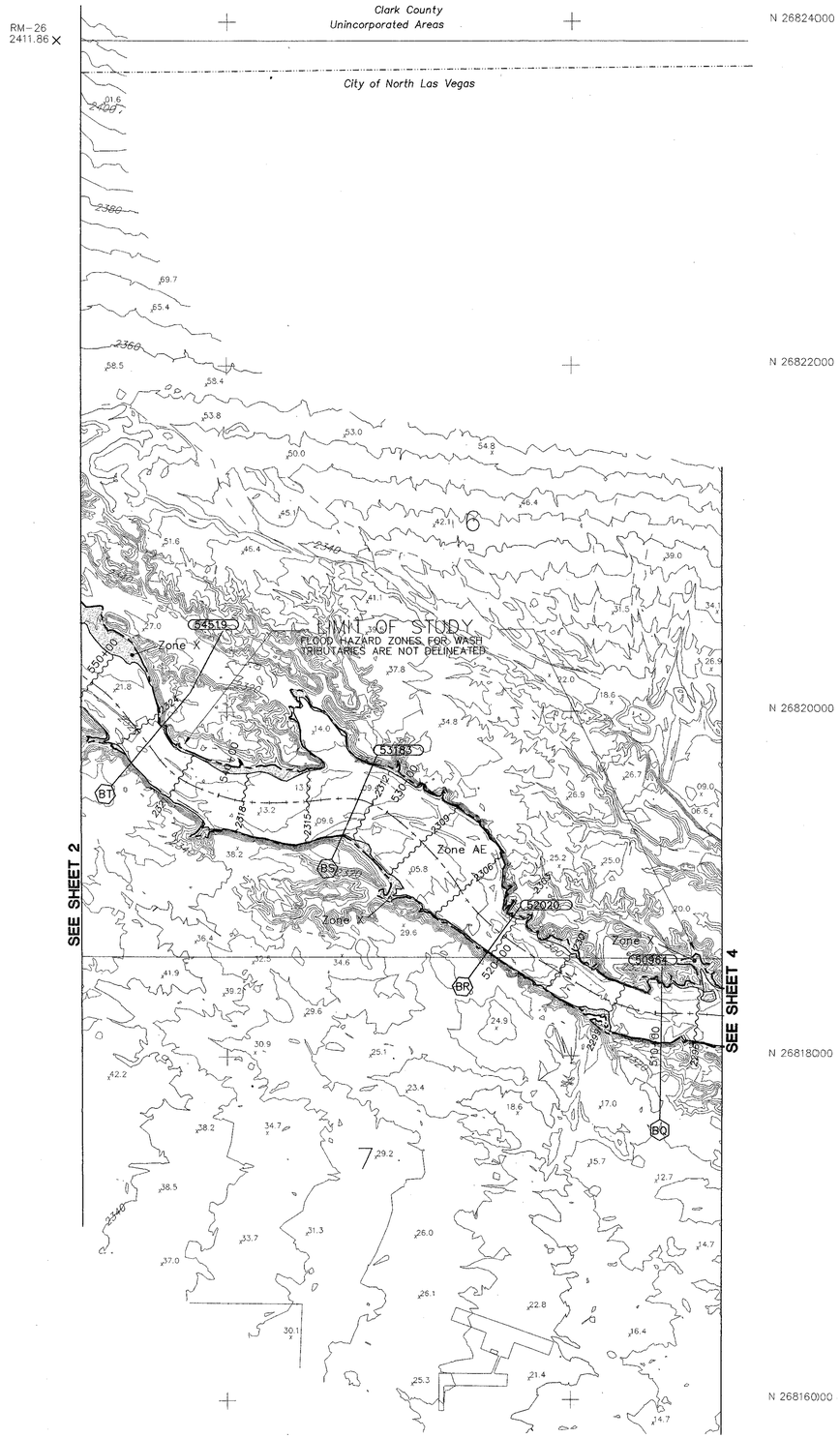
Flood Insurance Study of City of Las Vegas, City of North Las Vegas, Unincorporated Areas of Clark County
EMW-95-C-4840
FEMA Region IX

WORK MAP

UPPER LAS VEGAS WASH
WITHOUT NORTH LAS VEGAS
DETENTION BASIN DIVERSION DIKE

SHEET 2 OF 8

DATE: 4/6/98



N

LEGEND

- 15 — Section Line and Number
- Corporate Limits
- RM-1 × 2342.91 — Elevation Reference Mark
- 67.8 — Spot Elevation
- Intermediate Contour
- 2360 — Index Contour
- Unpaved Road
- Trail
- N 26818000 / E 766000 — Grid Tick with Northing and Easting
- 1952 — Base Flood Elevations
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- 100 Year Flood Plain Boundary
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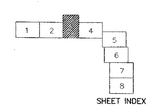
- AU — 24530 — Cross Section Line
- 410+00 — Hydraulic Base Line and Station



REV.	DATE	DESCRIPTION	BY	APP'D

SCALE
HORIZ. 1"=400' VERT. _____

DRAWING FILE NAME: SHT3-WO.DWG

JOB NUMBER: 50010.10

KENNEY AERIAL MAPPING
1130 West Fillmore
Phoenix, Arizona 85007

Aerial Photography Date: 2/96
Datum: NGVD 29
Contour Interval: 4'

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Flood Insurance Study of City of Las Vegas, City off North Las Vegas, Unincorporated Areas of Clark County, Nevada
EMW-95-C-4840
FEMA Region IX

WORK MAP

UPPER LAS VEGAS WASH
WITHOUT NORTH LAS VEGAS
DETENTION BASIN DIVERSION DIKE

SHEET 3 OF 8

DATE: 4/6/98

LEGEND

- 15 — Section Line and Number
- Corporate Limits
- RM-1 × 2342.91 — Elevation Reference Mark
- 67.8 — Spot Elevation
- Intermediate Contour
- 2360 — Index Contour
- Unpaved Road
- Trail
- N 26818000 E 766000 — Grid Tick with Northing and Easting
- 1952 — Base Flood Elevations
- Zone AE — Zone Designations
- Zone AE/AO Subboundary
- 100 Year Flood Plain Boundary
- 500 Year Flood Plain Boundary
- AU — 24530 — Cross Section Line
- 4104+00 — Hydraulic Base Line and Station

N

LIMIT OF STUDY
FLOOD HAZARD ZONES FOR WASH TRIBUTARIES ARE NOT DELINEATED

SEE SHEET 3

SEE SHEET 5

Zone X
Zone AE
49654
48046
46746
45725
44345
43231
42138
40616
39519
38410
AU
AV
AW
AX
AY
AZ
BA
BB
BC
BD
BE
BF
BG
BH
BI
BJ
BK
BL
BM
BN
BO
BP
4804+00
4730+00
4654+00
4580+00
4504+00
4430+00
4354+00
4280+00
4204+00
4130+00
4054+00
3980+00
3904+00
3830+00
3754+00
3680+00
3604+00
3530+00
3454+00
3380+00
3304+00
3230+00
3154+00
3080+00
3004+00
2930+00
2854+00
2780+00
2704+00
2630+00
2554+00
2480+00
2404+00
2330+00
2254+00
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2104+00
2030+00
1954+00
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1804+00
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1654+00
1580+00
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1130+00
1054+00
980+00
904+00
830+00
754+00
680+00
604+00
530+00
454+00
380+00
304+00
230+00
154+00
80+00

N 26820000
N 26818000
N 26816000
N 26814000

E 772000
E 774000
E 776000
E 778000
E 780000
E 782000

RM-28
2293.83

RM-29
2256.45

RM-30
2211.61

SHEET INDEX
1 2 3 5 6 7 8

REV.	DATE	DESCRIPTION	BY	APP'D

SCALE
HORIZ. 1"=400' VERT. _____

DRAWING FILE NAME: SHT4-WO.DWG

JOB NUMBER: 50010.10

KENNEY AERIAL MAPPING
1130 West Fillmore
Phoenix, Arizona 85007

Aerial Photography Date: 2/96
Datum: NGVD 29
Contour Interval: 4'

nhc
northwest hydraulic consultants inc.
3950 industrial boulevard, suite 100c
west sacramento, california 95691-3430
west sacramento tukwila
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WATER ENGINEERING/ HYDRAULIC MODEL TESTING/ HYDRAULIC ANALYSIS AND DESIGN/ COASTAL ENGINEERING
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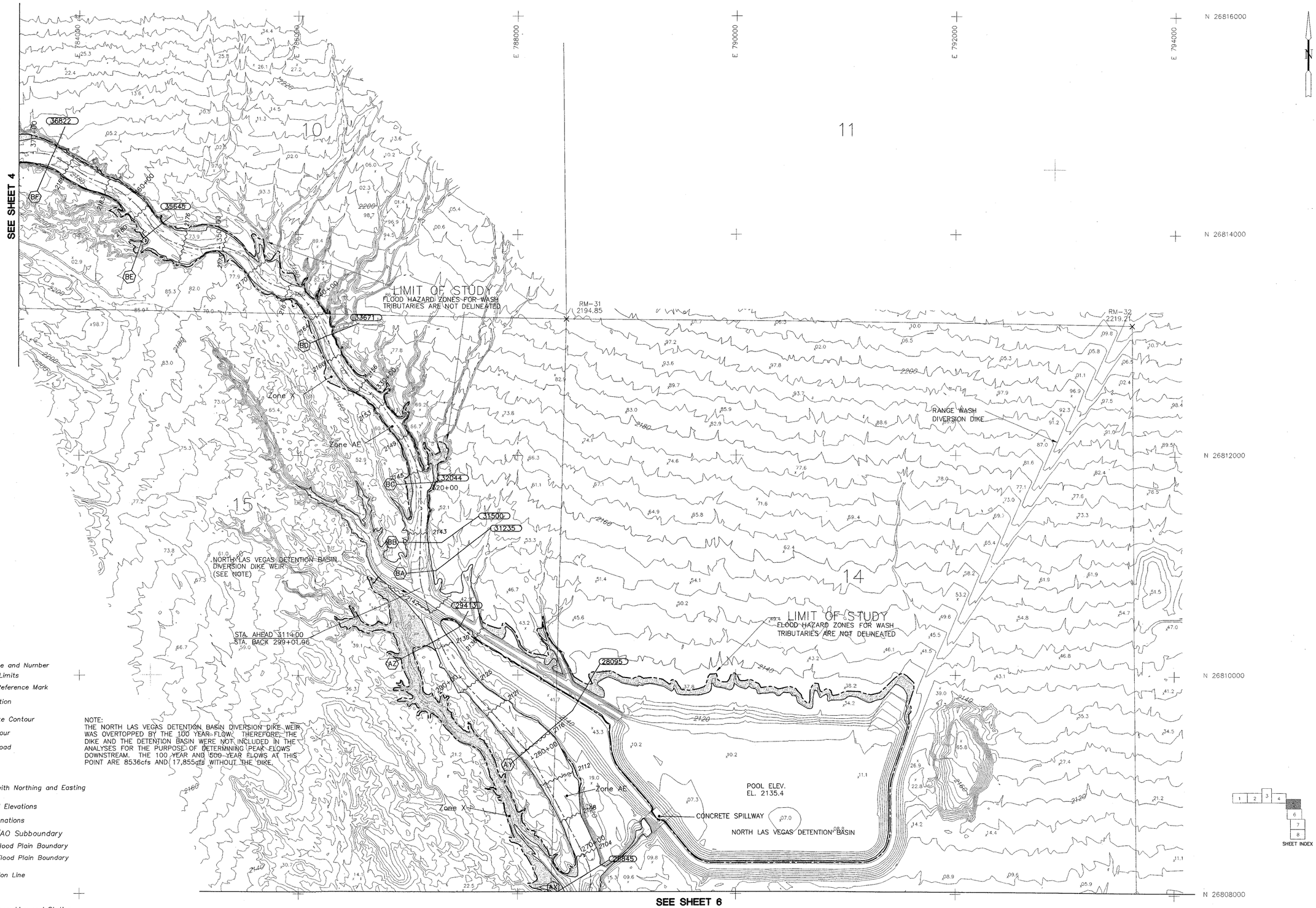
Flood Insurance Study of City of Las Vegas, City of North Las Vegas, Unincorporated Areas of Clark County, Nevada
EMW-95-C-4840
FEMA Region IX

WORK MAP

UPPER LAS VEGAS WASH
WITHOUT NORTH LAS VEGAS DETENTION BASIN DIVERSION DIKE

SHEET 4 OF 8

DATE: 4/6/98



LEGEND

- 15 — Section Line and Number
- Corporate Limits
- RM-1 × 2342.91 — Elevation Reference Mark
- 67.8 — Spot Elevation
- Intermediate Contour
- 2360 — Index Contour
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- Trail
- N 26818000 / E 766000 — Grid Tick with Northing and Easting
- 1952 — Base Flood Elevations
- Zone AE — Zone Designations
- Zone AE/AO Subboundary
- 100 Year Flood Plain Boundary
- 500 Year Flood Plain Boundary
- AU / 24530 — Cross Section Line
- 1410+00 — Hydraulic Base Line and Station

NOTE:
THE NORTH LAS VEGAS DETENTION BASIN DIVERSION DIKE WEIR WAS OVERTOPPED BY THE 100 YEAR FLOW. THEREFORE, THE DIKE AND THE DETENTION BASIN WERE NOT INCLUDED IN THE ANALYSES FOR THE PURPOSE OF DETERMINING PEAK FLOWS DOWNSTREAM. THE 100 YEAR AND 500 YEAR FLOWS AT THIS POINT ARE 8536cfs AND 17,855cfs WITHOUT THE DIKE.

SHEET INDEX: 1 2 3 4 6 7 8

REV.	DATE	DESCRIPTION	BY	APP'D

SCALE
HORIZ. 1"=400' VERT. _____

DRAWING FILE NAME: SHT5-WO.DWG

JOB NUMBER: 50010.10

KENNEY AERIAL MAPPING
1130 West Fillmore
Phoenix, Arizona 85007

Aerial Photography Date: 2/96
Datum: NGVD 29
Contour Interval: 4'

nhc
northwest hydraulic consultants inc.
3950 industrial boulevard, suite 100c
west sacramento, california 95691-3430
west sacramento tukwila
edmonton vancouver
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Flood Insurance Study of City of Las Vegas, City of North Las Vegas, Unincorporated Areas of Clark County, Nevada
EMW-95-C-4840
FEMA Region IX

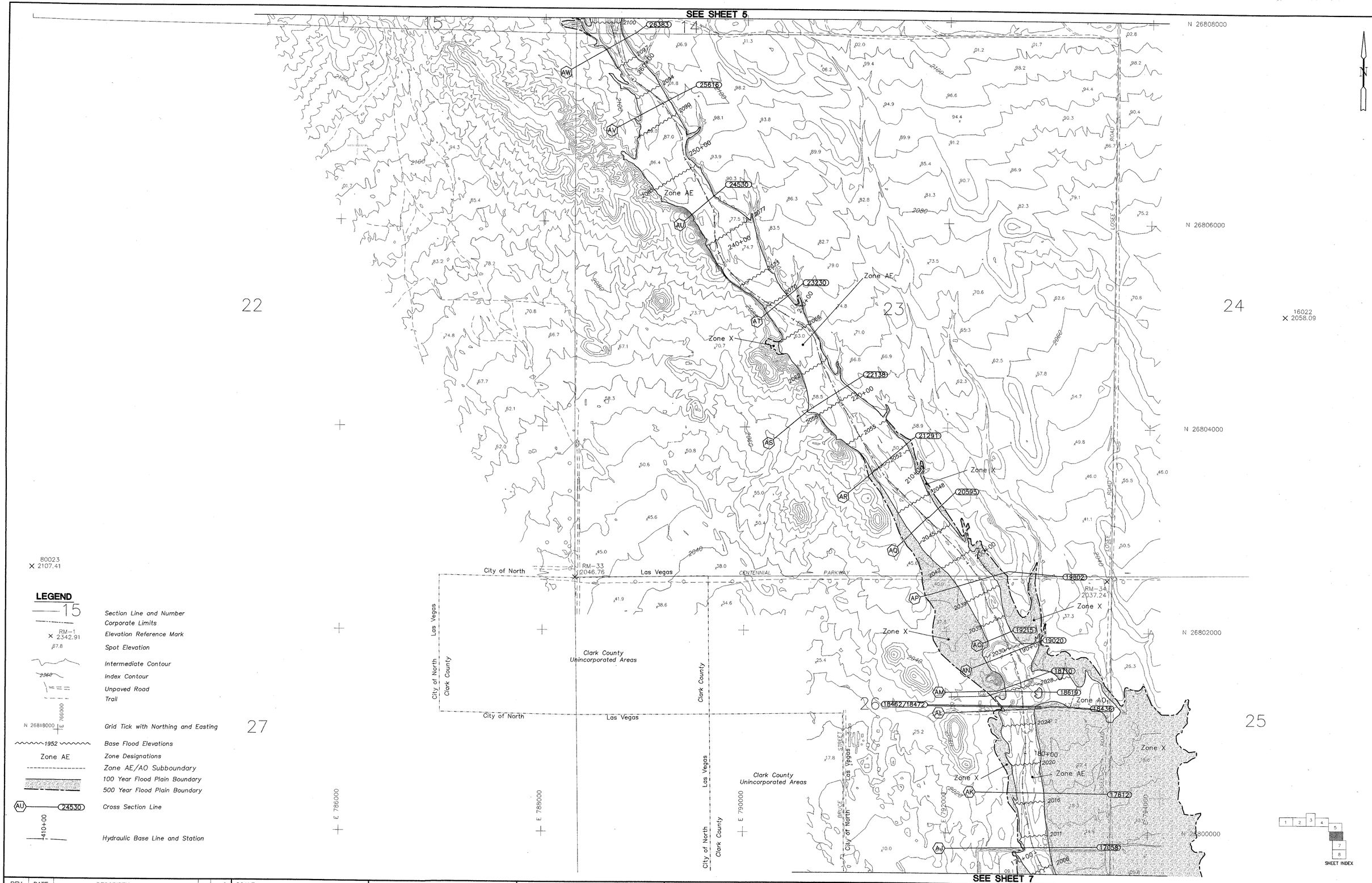
WORK MAP

UPPER LAS VEGAS WASH
WITHOUT NORTH LAS VEGAS
DETENTION BASIN DIVERSION DIKE

SHEET 5 OF 8

DATE: 4/6/98

SEE SHEET 5



LEGEND

- 15 — Section Line and Number
- Corporate Limits
- RM-1 X 2342.91 — Elevation Reference Mark
- 87.8 — Spot Elevation
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- 2360 — Index Contour
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- Zone AE — Zone Designations
- Zone AE/AO Subboundary
- 100 Year Flood Plain Boundary
- 500 Year Flood Plain Boundary
- AU — 24530 — Cross Section Line
- 410+00 — Hydraulic Base Line and Station

SEE SHEET 7

SHEET INDEX
1 2 3 4 5 7 8

REV.	DATE	DESCRIPTION	BY	APP'D

SCALE
HORIZ. 1"=400' VERT.

DRAWING FILE NAME: SHT6-WO.DWG

JOB NUMBER: 50010.10

KENNEY AERIAL MAPPING
1130 West Fillmore
Phoenix, Arizona 85007

Aerial Photography Date: 2/96
Datum: NGVD 29
Contour Interval: 4'

nhc
northwest hydraulic consultants inc.
3950 industrial boulevard, suite 100c
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edmonton vancouver
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Flood Insurance Study of City of Las Vegas, City of North Las Vegas,
Unincorporated Areas of Clark County, Nevada
EMW-95-C-4840
FEMA Region IX

WORK MAP

UPPER LAS VEGAS WASH
WITHOUT NORTH LAS VEGAS
DETENTION BASIN DIVERSION DIKE

SHEET 6 OF 8

DATE: 4/6/98

SEE SHEET 6

SEE SHEET 8

LEGEND

- 15 — Section Line and Number
- Corporate Limits
- RM-1 × 2342.91 — Elevation Reference Mark
- 87.8 — Spot Elevation
- Intermediate Contour
- 2360 — Index Contour
- Unpaved Road
- Trail
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- Zone AE — Zone Designations
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- 100 Year Flood Plain Boundary
- 500 Year Flood Plain Boundary
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- 410+00 — Hydraulic Base Line and Station

SHEET INDEX: 1 2 3 4 5 6 8

City of North Las Vegas
Clark County
Clark County
City of North Las Vegas
Clark County
Unincorporated areas
Clark County
City of North Las Vegas
City of North Las Vegas
Clark County
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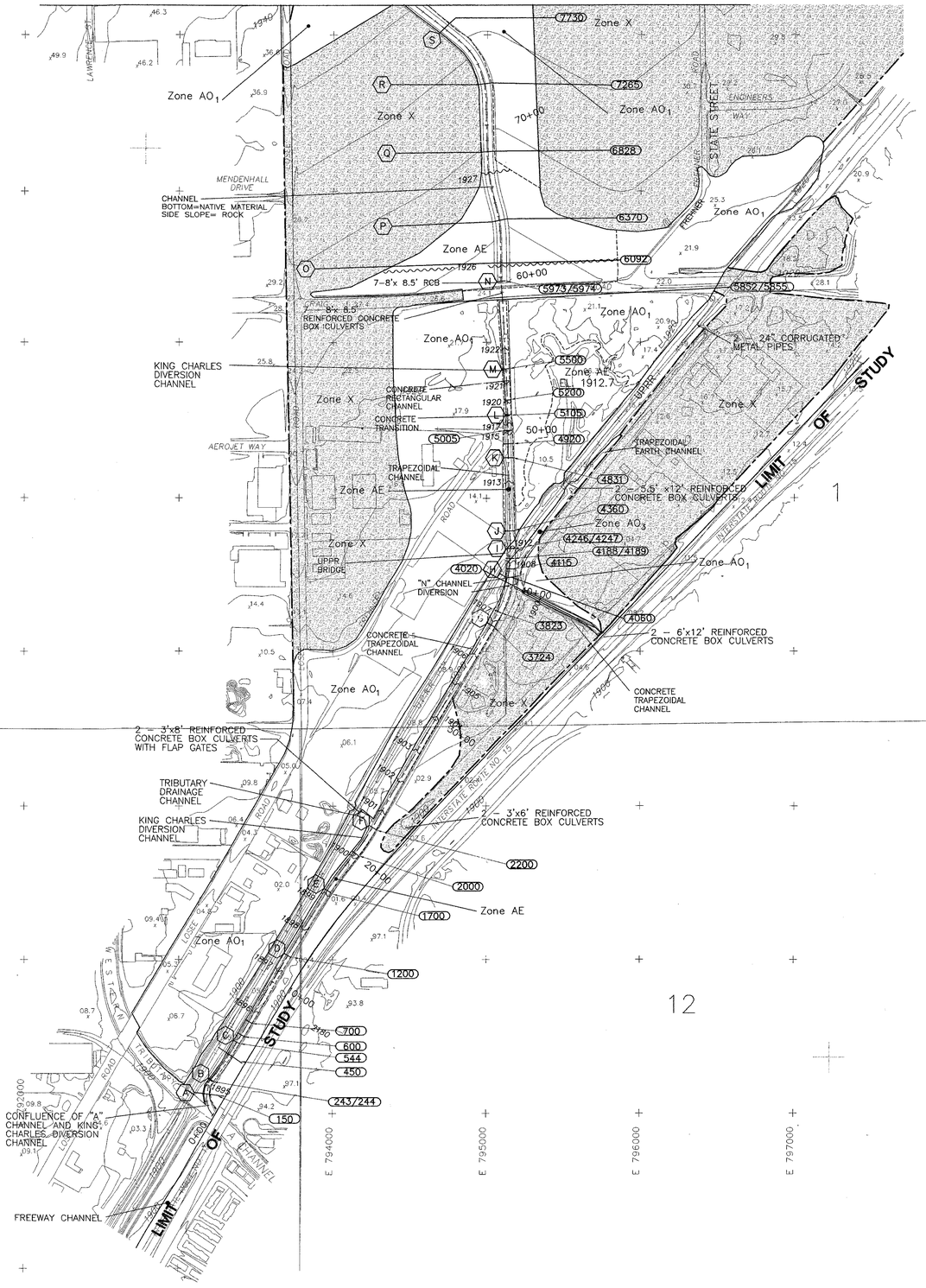
City of North Las Vegas
Clark County

SEE SHEET 7



LEGEND

- 15 — Section Line and Number
- Corporate Limits
- RM-1 × 2342.91 — Elevation Reference Mark
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- 410+00 — Hydraulic Base Line and Station

SHEET INDEX

REV.	DATE	DESCRIPTION	BY	APP'D

SCALE
HORIZ. 1"=400' VERT.

DRAWING FILE NAME: SHT8WO.DWG

JOB NUMBER: 50010.10

KENNEY AERIAL MAPPING
1130 West Fillmore
Phoenix, Arizona 85007

Aerial Photography Date: 2/96
Datum: NGVD 29
Contour Interval: 4'

nhc
northwest hydraulic consultants inc.
3950 industrial boulevard, suite 100s
west sacramento, california 95691-3430
west sacramento tukwila
edmonton vancouver
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Flood Insurance Study of City of Las Vegas, City of North Las Vegas, Unincorporated Areas of Clark County, Nevada
EMW-95-C-4840
FEMA Region IX

WORK MAP

UPPER LAS VEGAS WASH
WITHOUT NORTH LAS VEGAS
DETENTION BASIN DIVERSION DIKE

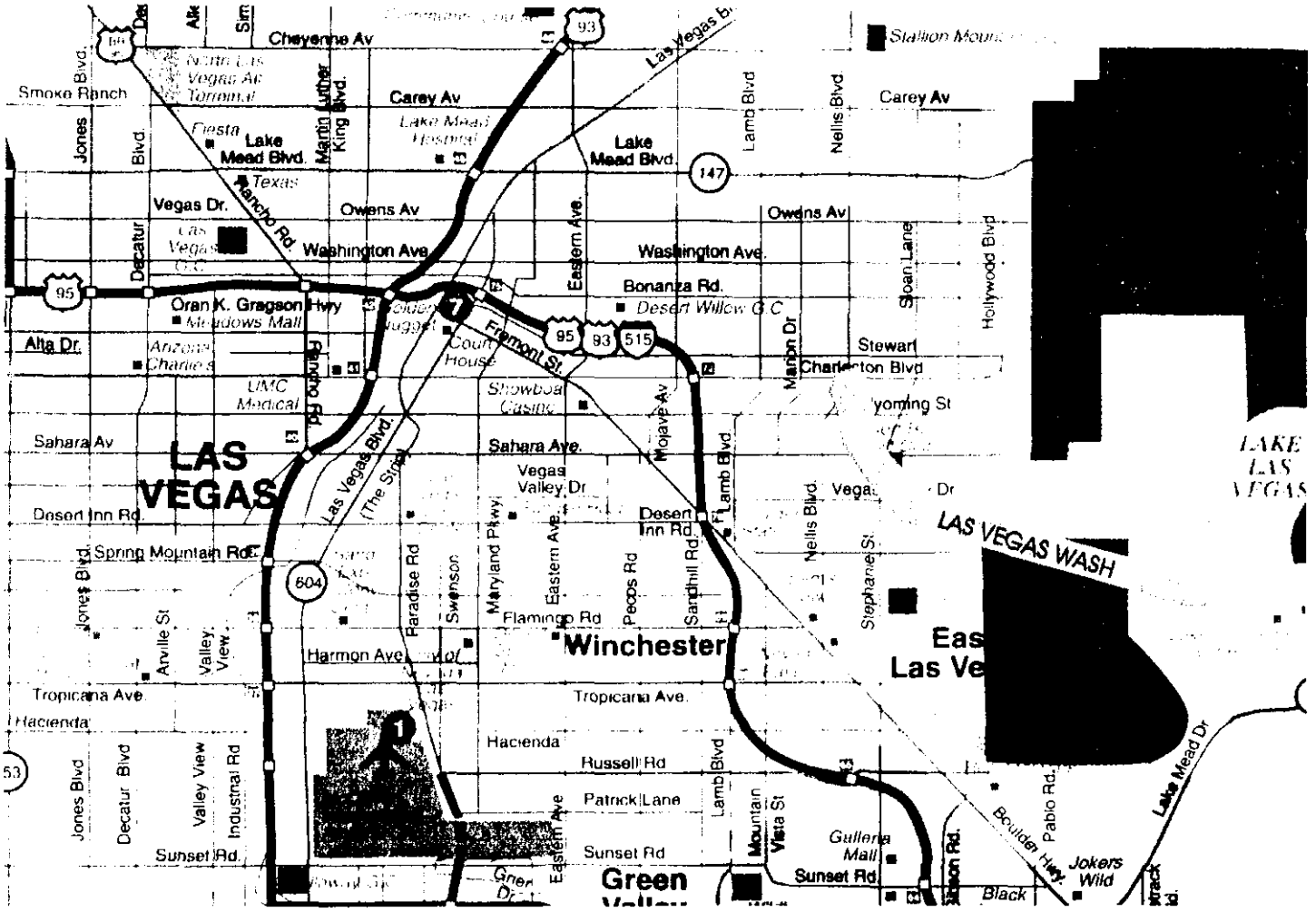
SHEET 8 OF 8

DATE: 4/6/98

TECHNICAL SUPPORT DATA NOTEBOOK

LAS VEGAS WASH
FLOOD INSURANCE STUDY
CLARK COUNTY, NEVADA

JANUARY 15, 1999 - VOLUME 2



FEMA

NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors

FEDERAL EMERGENCY MANAGEMENT AGENCY

TECHNICAL SUPPORT DATA NOTEBOOK
Volume 2

FOR

CLARK COUNTY, NEVADA

FLOOD INSURANCE STUDY

SUBMITTED BY: NOLTE AND ASSOCIATES

DATE SUBMITTED: January 15, 1999

MICHAEL BAKER, JR., INC.
RECEIVED
FEB 12 1999
ALEXANDRIA, VIRGINIA

TABLE OF CONTENTS - continued

TSDN - VOLUME 2

Section 2 - *Engineering Analysis - continued*

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  - Duck Creek
    - Profile and Mapping Concurrence Index, File 2Bb8a CID32003 001
  - Range Wash
    - Profile and Mapping Concurrence Index, File 2Ba8a CID32003 001
  - Flamingo Wash
    - Profile and Mapping Concurrence Index, File 2Ba8b CID32003 001
  - Upstream of Study Limit
    - Profile and Mapping Concurrence Index, File 2Ba8c CID32003 001
- Quality Assurance
  - Quality Assurance Index, File 2Bb9 CID32003 001
  - Quality Assurance Index, File 2Ba9 CID32003 001

Section 3 - Draft FIS Report Text

- Draft FIS Report Text

Section 4 - Mapping Information

- Work Maps
- BFE Description Index, File 4C CID32003 001
- Effective FIRM's & FIS, File 5B CID32003 001
- Surveying & Mapping Index, File 4A CID32003 001

Section 5 - Miscellaneous Reference Materials

- Layer Listing Description, File 4B1.1 CID32003 001
- Miscellaneous Reference Materials, File 5E CID 32003 001
- Photo Index, File 2Ba1CID 32003 001
- U.S.G.S. 7.5 Minute Quadrangle Maps
- Black and White Aerial Contact Prints
- CD's

Profile
Concurrence

PROFILE CONCURRENCE

DUCK CREEK

RANGE WASH

FLAMINGO WASH

UPSTREAM OF STUDY LIMIT

DUCK CREEK

2Bb8a CID32003 001

Study Contractor: Nolte & Associates, Inc.

PROFILE AND MAPPING CONCURRENCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Duck Creek Mapping Concurrence		Pg. 2
Duck Creek	HEC-2 Model output		Pg. 3 – 21
Duck Creek	HEC-2 Model input	Break1.dat	

Duck Creek

Location	Nolte section 510 (a)	Nimbus section 117
Rebel Road	1612.53 wsel	1612.12 wsel

difference in wsel = 1612.53' - 1612.12' = 0.41'

Nolte model: LV.DAT
Nimbus model: BREAK1.DAT, April 1997

(a) The Nolte study is based on the James M. Montgomery Las Vegas Valley Flood Insurance Study Hydrology Report dated Sept. 1991

```
1*************************************
*  HEC-2 WATER SURFACE PROFILES     *
*                                   *
*  Version  4.6.2;  May 1991        *
*                                   *
*  RUN DATE   28AUG98   TIME  09:05:38 *
*************************************
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*************************************
*  U.S. ARMY CORPS OF ENGINEERS     *
*  HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D       *
*  DAVIS, CALIFORNIA 95616-4687     *
*       (916) 756-1104              *
*************************************
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X     X  XXXXXXX  XXXXX            XXXXX
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XXXXXXX  XXXX    X        XXXXX  XXXXX
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X     X  X       X     X        X
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1
   28AUG98      09:05:38                                                    PAGE    1

                                                    THIS RUN EXECUTED 28AUG98    09:05:38

************************************
 HEC-2 WATER SURFACE PROFILES

 Version  4.6.2;  May 1991
************************************


SPLIT FLOW BEING PERFORMED

SF    SPLIT FLOW ANALYSIS

JC    WEIR FLOW ANALYSIS
JP     0       0       40      -1       0

TW    WEIR FLOW OVER BOULDER HIGHWAY BETWEEN SECTIONS 201 AND 202
WS     2      201     202      124     3.0
WC     0   1642.0     240   1642.7

TW    WEIR FLOW OVER BOULDER HIGHWAY BETWEEN SECTIONS 202 AND 203
WS     3      202     203      124     3.0
WC     0   1642.7     255     1644     565   1646.1

TW    WEIR FLOW OVER BOULDER HIGHWAY BETWEEN SECTIONS 203 AND 204
WS     3      203     204      124     3.0
WC     0   1646.1     210     1648     335   1649.2

TW    WEIR FLOW OVER BOULDER HIGHWAY BETWEEN SECTIONS 204 AND 205
WS     3      204     205      124     3.0
WC     0   1649.2      85     1650     115   1650.3

TW    WEIR BETWEEN SECTIONS 205.2 AND 205.3
WS     3    205.2   205.3      205     2.7
WC     0   1652.7     270     1654     375   1655.2

TW    WEIR BETWEEN SECTIONS 205.3 AND 205.4
WS     5    205.3   205.4      205     2.7
WC     0   1655.2      95     1656     230    1658     260    1660     295  1662.3
1
   28AUG98      09:05:38                                                    PAGE    2

T1    DUCK CREEK FLOOD INSURANCE STUDY              CONTRACT #: FIS-94-21
T2    PREPARED BY NIMBUS ENGINEERS, RENO,NV         FILENAME:   Break1.dat
T3            DUCK CREEK                            DATE: APRIL 1997

      Downstream limit of study
      Start WSEL with slope-area method
      Q100 = 11,500 cfs

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0        2          0         0    0.0045         0         0         0      1560         0
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      -1         0        -1                                                                    15

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150        38        43        13        14        15        26        1         53        54
       4        25

NC     .045      .045      .035        .1        .3

QT       1     11500

   CROSS SECTION A1
```

```
X1      100       34     1720     2012        0        0        0
GR     1566     1000     1564     1050  1562.05     1200  1562.25     1300     1562     1325
GR   1561.2     1430     1560     1510  1559.15     1575     1558     1670     1556     1720
GR     1554     1728     1552     1740     1550     1850     1548     1880   1546.2     1920
GR   1546.2     1970     1548     1980     1550     1995     1552     2005     1554     2010
GR     1556     2012     1558     2028   1559.3     2100     1559     2220     1558     2280
GR   1557.8     2320     1558     2350     1560     2540   1560.5     2600     1560     2690
GR   1559.9     2770   1559.5     2850     1560     2930     1562     2950
   CROSS SECTION A2

X1      102       32     1850     2046     1590     1500     1530
GR     1576     1000     1574     1030     1572     1200     1570     1270     1568     1320
GR     1567     1430  1566.25     1530     1566     1620     1564     1850     1562     1920
GR     1560     1932     1558     1960   1556.3     1990   1556.4     2020     1558     2035
GR     1560     2040     1562     2043     1564     2046     1566     2050     1568     2070
GR   1568.6     2090     1568     2160   1567.9     2210     1568     2310     1568     2420
GR   1567.8     2470     1568     2510  1568.45     2610     1568     2730     1568     2800
GR     1570     3150     1572     3220
   CROSS SECTION A3
1
   28AUG98      09:05:38                                                                PAGE    3

X1      103       20     1532     1700      720      720      720
GR     1572     1000     1575     1131     1574     1175     1572     1225     1570     1270
GR   1568.4     1334   1568.7     1412     1568     1532     1566     1575     1562     1598
GR     1560     1618   1559.3     1635   1559.2     1647   1559.3     1655     1560     1670
GR     1568     1700     1570     1740     1571     1860     1571     2035     1572     2245
   CROSS SECTION A11

ET                7.1                                        1650     3370
X1      104       52     2180     2420      510      510      510
GR     1584     1000     1582     1020     1580     1047     1578     1058   1577.4     1105
GR   1577.1     1142     1576     1215     1574     1230     1572     1236   1571.2     1265
GR   1571.2     1295     1572     1331     1574     1364     1576     1445   1576.3     1500
GR   1576.4     1542     1576     1585   1575.6     1650   1574.8     1717     1576     1755
GR   1576.1     1762     1576     1780     1576     1830   1575.5     1870     1576     1940
GR   1575.2     2020   1575.3     2070     1574     2180     1572     2250     1570     2280
GR     1568     2286     1566     2290   1564.5     2310     1566     2330     1568     2340
GR     1570     2380     1572     2395     1574     2420   1574.2     2450   1574.3     2480
GR     1574     2520     1572     2595     1570     2670     1568     2680   1567.6     2710
GR   1567.5     2730     1568     2745     1570     2755     1572     2820     1574     3150
GR   1575.5     3230     1576     3370
   CROSS SECTION A6

ET                7.1                                        1500     3050
X1      106       36     2320     2995     1120     1040     1100
GR     1590     1000     1588     1010     1586     1017  1584.65     1090     1584     1200
GR     1582     1270     1580     1300     1578     1315     1577     1330     1578     1345
GR     1580     1350     1582     1356     1584     1390     1585     1500   1584.7     1650
GR     1584     1795     1582     2100     1580     2320     1578     2380     1578     2400
GR     1580     2510   1580.3     2570   1580.3     2630     1580     2690     1578     2820
GR   1576.9     2850   1576.7     2875     1578     2915     1580     2995   1581.75     3050
GR     1580     3125     1580     3150     1582     3210   1583.25     3265     1584     3340
GR     1586     3380
   CROSS SECTION A13

NC    0.055     0.065     0.055       0.1       0.3
   ET CARD USED TO ENCROACH AN INEFFECTIVE FLOW AREA.
ET                7.1                                        1600     3085
X1      108       48     2640     2920     1000     1000     1100
GR     1596     1000     1594     1040   1592.35     1205     1592     1225     1590     1250
GR     1588     1255     1586     1260   1585.5     1295     1586     1320     1588     1330
GR     1590     1350   1590.4     1500   1590.5     1600     1590     1720     1588     1910
GR     1586     2080   1585.2     2250   1584.6     2410     1584     2640   1583.7     2750
GR   1582.8     2880     1584     2920   1585.5     2940     1584     2968   1583.7     3000
GR     1584     3045     1586     3065   1587.4     3085     1586     3110   1585.5     3130
GR   1585.5     3155     1586     3200   1587.2     3220     1586     3240     1586     3290
GR     1584     3310   1582.8     3360   1582.9     3400     1584     3445     1586     3490
GR     1588     3500     1588     3520   1587.7     3550     1588     3570     1590     3610
GR     1592     3640     1594     3720  1594.25     3730
   CROSS SECTION A14
1
   28AUG98      09:05:38                                                                PAGE    4

NC    0.065     0.065     0.055
ET                7.1                                        2060     4000
X1      110       27     3330     3680     1010     1150     1000
GR   1595.8     2060   1595.8  2060.01   1595.8  2060.02     1595     2190     1594     2334
GR   1593.3     2460   1592.9     2610     1592     2805     1591     3060   1591.3     3260
GR   1591.6     3330     1591     3490   1590.4     3610     1592     3680     1594     3740
GR     1596     3880     1598     3960   1598.6     4040   1599.5     4160     1598     4230
GR     1596     4239     1594     4242   1592.4     4280   1593.6     4360     1594     4410
GR     1596     4610     1598     4730
   CROSS SECTION A15

X1      112       26     2975     3165     1050     1030     1050
GR     1602     1000     1600     1240     1598     1650     1596     2190   1595.9     2220
GR     1596     2242     1598     2650   1596.5     2715     1598     2760   1599.3     2855
GR   1599.3     2975     1598     3060   1597.7     3080     1598     3095   1599.7     3165
GR     1600     3310   1600.5     3320   1600.5     3345     1600     3400     1598     3440
GR   1597.6     3460   1597.6     3500     1598     3530     1600     3642     1602     3728
GR     1604     3890
   CROSS SECTION A16
   Ignore Culverts under Rebel Road.  Clogged and ineffective.

NC    0.016     0.016     0.016       0.5       0.8
   REBEL ROAD
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X1      117        23      1000      4490      1350      1000       940
GR     1614       765      1615      1000      1614      1150   1613.45      1260    1613.2      1370
GR   1612.8      1560    1612.6      1660    1612.1      1760   1611.81      1860   1611.25      2010
GR     1610      2180    1608.9      2280      1610      2410      1612      2630      1614      2880
GR     1614      2930    1614.1      3280    1612.2      3430      1612      3450   1610.35      3910
GR     1612      4230    1613.2      4320      1614      4490
   CROSS SECTION A17

NC     0.07     0.055     0.045
X1      118        40      3240      3360        60        60        60
GR     1614       765      1612      1000    1611.3      1250      1611      1350    1610.8      1450
GR     1610      1545    1609.9      1700    1609.7      1850    1609.5      2000    1609.3      2100
GR   1609.1      2200    1608.9      2280      1608      2430    1607.8      2480      1608      2580
GR     1608      2620      1607      2700    1606.4      2800      1606      2870    1606.7      2920
GR     1606      2980      1605      3110    1604.9      3148      1606      3240      1606      3270
GR     1604      3275      1603      3295      1604      3310      1606      3340    1606.3      3360
GR     1607      3460    1607.8      3610      1608      3770    1609.2      3870      1610      4040
GR   1611.4      4140      1612      4250      1613      4280    1612.7      4420      1614      4490
   CROSS SECTION A

X1      120        25      2000      2170       260       835       440
X4        2      1614      1000      1614      3670
GR     1616       880    1612.1      1200      1612      1360   1611.7      1500      1611      1650
GR   1611.1      1850    1611.2      2000      1610      2100      1612      2170   1615.35      2190
GR     1612      2200      1610      2220      1610      2245      1611      2400    1610.8      2550
GR     1612      2700      1612      2760    1612.8      2820    1612.6      2850      1612      2900
GR   1611.1      3030    1611.3      3250    1610.8      3450      1612      3620      1616      3840
   CROSS SECTION B
1
   28AUG98      09:05:38                                                                  PAGE    5

NC     0.07     0.07     0.045       0.1       0.3
X1      122       34      2040      2183       520       700       570
X3                                                      3150      1616
GR     1618      1000      1616      1150    1614.9      1350   1614.5      1450      1614      1570
GR     1614      1650    1613.9      1750    1613.8      1820      1614      1925    1614.2      1980
GR   1614.2      2000      1614      2040      1612      2140      1610      2150    1609.5      2156
GR     1610      2170      1612      2176      1614      2183      1616      2200      1618      2205
GR     1618      2220      1616      2330    1615.2      2400    1615.4      2600    1615.6      2800
GR     1616      3000      1616      3050    1615.8      3075      1616      3090    1617.1      3150
GR     1616      3220    1614.5      3265      1616      3280      1618      3350
   CROSS SECTION C

X1      124        31      1955      2040       525       530       525
X4        1      1620      1000
GR     1622       892      1618      1180      1618      1330   1618.5      1390    1618.5      1430
GR     1618      1470    1617.2      1550    1617.4      1650      1618      1730    1618.2      1760
GR     1618      1790      1616      1955      1614      1995      1612      2005      1612      2022
GR     1614      2028      1616      2040      1618      2050      1620      2052      1622      2060
GR     1622      2077      1620      2087    1619.2      2100      1619      2190      1619      2440
GR     1620      2758    1619.2      2880    1619.3      2930      1620      3020    1620.2      3135
GR     1622      3570
   CROSS SECTION D

NC     0.07     0.07      0.06       0.1       0.3
X1      126       32      1940      2110      1000       630       840
GR     1630      1000      1628      1055    1627.8      1220      1626      1390    1625.2      1450
GR   1625.8      1550      1626      1630      1626      1660    1624.4      1750    1624.2      1840
GR   1625.2      1940      1624      1980      1622      1995    1621.7      2020    1621.7      2050
GR     1622      2075      1624      2100      1626      2110      1626      2140      1624      2180
GR     1623      2220      1623      2243      1623      2270      1623      2320    1623.9      2385
GR     1623      2455      1623      2655    1623.1      2855    1623.3      3055    1623.7      3255
GR     1624      3485      1626      3790
   CROSS SECTION E

NC     0.07     0.05      0.06       0.1       0.3
X1      128       30      1820      1970       750       750       820
X4        1      1630      1000
GR     1632       762      1628      1190      1626      1250      1626      1285      1626      1330
GR   1627.8      1460    1627.8      1560      1628      1670    1628.2      1740      1628      1820
GR     1626      1895      1625      1920      1626      1935      1628      1970    1628.2      1990
GR     1628      2010    1627.8      2060    1627.3      2110      1628      2160    1628.6      2210
GR   1629.6      2310    1629.2      2410    1629.6      2510      1630      2590      1630      2640
GR   1629.8      2760    1629.2      2860    1629.5      2960      1630      3105    1630.5      3160

   Cross Section 1 of Special Culvert at Boulder Highway.
   Note:  North Bound Lane of Boulder Highway is a bridge with piers.  South
          Bound Lane is two-triple cell RCB's.  Will use triple RCB's for
          analysis.  (upstream lane)
   CROSS SECTION F
1
   28AUG98      09:05:38                                                                  PAGE    6

NC                                    0.3       0.5
X1      130       31      1865      1970       460       520       480
GR     1634      1000      1632      1150    1631.5      1270      1631      1370    1630.6      1460
GR   1630.1      1690      1632      1820      1634      1843      1636      1850      1636      1860
GR     1634      1865      1632      1880      1630      1887      1628      1890    1627.8      1905
GR   1627.8      1920      1628      1934      1630      1938      1632      1945      1634      1970
GR     1634      1990    1634.7      2020      1635      2040      1634      2075      1632      2110
GR   1631.4      2170    1631.5      2270      1631      2370      1632      2420      1634      2480
GR     1635      2570

QT        1      8159

   CROSS SECTION G
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```
NC    0.055     0.055     0.06
X1      198        96   1790.7    1897.1       470       470       470
X3       10
GR   1641.9      1000   1641.8    1015.4    1641.3      1028      1641    1048.3    1640.9    1077.4
GR   1640.8    1085.4   1639.2    1104.5    1639.2    1107.7    1640.4    1126.7    1640.1    1133.4
GR   1639.9      1141   1639.9    1162.8    1639.2    1172.8    1639.2    1180.1    1639.8    1190.3
GR   1639.5    1205.4   1639.5    1216.9    1639.3    1229.7    1638.8    1244.8    1638.7    1250.6
GR   1638.6      1264   1638.3    1272.1    1638.5    1315.8    1638.5    1331.5    1638.4    1344.5
GR   1638.4    1359.5   1638.5    1372.3    1638.3    1413.3    1638.1    1435.9    1638.2    1446.4
GR   1637.8    1463.4   1637.4    1492.1    1637.4    1500.9    1637.2    1516.4      1637    1540.1
GR     1637    1553.3   1637.3    1591.8    1637.4    1596.6    1637.5    1623.3    1637.8    1638.6
GR   1638.1    1681.7     1638    1687.5    1637.9    1709.2      1638    1710.2    1637.7    1748.5
GR   1637.6    1778.1   1637.7    1790.7    1637.2    1798.8    1635.4    1806.3    1634.6    1812.1
GR   1633.1    1821.5     1633    1856.8    1632.8    1887.4    1636.2    1893.7    1637.9    1897.1
GR   1638.2    1916.3   1638.3    1920.8    1637.6      1933    1638.7    1987.1    1638.8    1994.9
GR   1639.6    2026.3   1638.3    2055.1    1638.3    2068.8    1639.3    2096.7    1638.2    2132.4
GR   1638.5    2142.8   1638.6    2190.7    1638.4    2203.2    1638.6    2216.9    1638.5    2229.8
GR   1638.4    2232.4   1638.6    2248.2    1638.9    2258.6    1638.9    2290.8    1639.7    2326.3
GR   1639.9    2344.8   1639.6    2394.2    1639.6    2415.5    1639.5    2438.8      1639    2459.3
GR   1638.6      2470   1638.2    2491.9    1638.3    2493.7    1638.3    2497.7    1638.6    2514.8
GR   1638.6    2523.2   1638.9    2530.7      1639    2554.4    1639.6    2582.8    1639.9    2591.7
GR   1640.2      2595   1640.3    2610.3    1640.9    2636.5    1640.7    2657.8    1640.6    2680.7
GR   1640.2      2722

      BOULDER HIGHWAY  NORTH BOUND CROSSING  TWO-TRIPLE 12X6 RCB'S, SEE
      NDOT PROJECT #: SP-F-006-1(4), CONTRACT #: 1444
      MOSTLY CLOGGED, USED 12x2 RCB   TOP OF ROAD ELEVATION TAKEN FROM TOPO

   CROSS SECTION H

NC    0.055     0.055     0.035
SC    6.013        .2       2.9      1000         2        12        54      10.1    1633.5      1633
X1      200        93   1803.2    1910.9       188       188       188
X2        0         0         2   1635.5    1638.4
X3       10
GR   1642.0      1000   1641.9    1020.0    1641.8    1039.2    1641.7    1048.9    1641.4    1074.5
GR   1640.6    1091.1     1641    1092.8      1641    1100.3    1640.7    1107.5      1641    1112.3
GR   1640.9    1130.1   1641.1    1135.5      1641    1154.7    1640.6    1179.6    1640.5    1180.5
GR   1640.4    1188.3   1639.2    1229.3    1639.7    1250.2    1639.6    1250.7    1639.6    1272.2
1
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GR   1639.7    1274.5   1639.6    1294.9    1639.1   1316.43    1638.6    1392.6    1638.5    1393.8
GR   1638.6    1423.2   1638.5    1461.7    1637.9      1496    1637.5    1559.5      1638    1604.3
GR   1638.2    1611.9   1638.1    1614.7    1638.2    1617.8    1637.9    1632.5    1637.8    1670.1
GR   1638.2    1686.2   1637.7    1710.8    1637.6    1743.1      1638    1750.9      1808    1757.6
GR   1637.5    1776.7   1637.5    1790.3    1637.9    1803.2    1636.9    1808      1893.1    1810.8
GR   1634.1   1819.72   1633.9      1827    1633.5    1879.6    1633.5    1893.1    1635.5    1896.8
GR   1636.2    1898.5   1636.3    1901.4    1637.1    1906.2    1638.2    1910.9      1638    1921.3
GR     1638    1927.9   1638.5    1950.1    1638.4    1970.9    1638.5      1978      1638    1996.5
GR   1638.6    2027.5   1638.3      2068    1637.9    2082.8    1638.4    2092.5    1638.3    2098.8
GR   1638.3    2117.1   1638.1    2141.4    1637.3    2165.4    1637.2    2180.2    1637.5    2205.7
GR   1637.4    2206.9   1637.6    2225.8    1639.1    2276.8    1638.7    2287.3    1638.9    2297.1
GR   1638.9    2317.4   1639.6    2350.6    1639.6    2365.1    1640.4      2433    1640.6    2464.3
GR   1640.4      2501   1638.5    2521.6    1640.1      2563    1640.5    2572.3      1641    2606.1
GR   1640.8    2636.8   1640.9    2641.4    1640.7    2644.2    1640.5      2695    1640.7      2705
GR   1640.6      2740   1641.2    2764.5    1641.3    2776.7
   CROSS SECTION I

NH        3     0.016    1093.8     0.035    1139.5      0.06    2147.5
ET              7.1                                           1069.2    2147.5
X1      201        95      1000    2147.5       220       640       430
GR     1642      1000   1641.9      1022      1642      1040    1642.1      1064      1642      1071
GR   1640.6    1093.8   1640.1      1096    1638.9      1105    1639.1    1108.8    1640.8    1139.5
GR   1640.7      1140   1640.8    1140.9    1641.2    1201.3    1641.2    1213.8    1641.3    1218.4
GR   1641.2    1235.2   1641.4    1270.5      1641    1296.4    1640.8    1323.9    1640.9    1350.3
GR   1640.7    1368.5   1641.2    1394.8    1641.3    1419.3    1641.2    1453.4    1641.2    1469.4
GR     1641      1515     1641    1523.2    1641.3    1533.1    1641.3   1533.31    1641.7    1546.3
GR   1641.2    1554.2   1640.8      1563    1640.8    1567.3    1640.7    1570.5    1640.7    1570.7
GR   1640.8    1572.8   1641.9    1586.6      1642      1587    1641.9    1587.2    1641.5    1603.4
GR   1643.1    1611.4   1643.4    1612.1    1645.2      1619    1643.9    1621.4    1642.7    1630.2
GR   1642.6    1633.9   1644.3    1640.1    1644.6    1641.7    1643.3    1666.1    1642.1    1688.3
GR   1641.7    1695.3   1641.5    1700.2    1641.8    1701.8      1642    1702.6    1642.5      1704
GR   1644.4    1712.7   1644.4    1712.8    1643.9    1716.5      1644    1717.9      1642    1727.5
GR   1641.2    1738.3   1640.8    1742.5    1640.8    1749.1    1641.3    1756.9    1641.3    1770.8
GR   1641.6    1789.6   1641.8    1793.7    1641.8    1816.8    1641.9    1823.7      1642    1824.9
GR   1642.7    1848.2   1642.9    1853.6      1643    1854.8    1643.4    1869.3    1643.3    1874.2
GR   1643.4    1901.1   1643.5    1924.9    1643.4    1928.1    1643.4    1929.8    1643.2    1932.1
GR     1643    1934.8   1642.6      1942    1642.6    1969.6    1642.5    1985.7    1642.5    2019.6
GR   1643.7    2031.9   1643.9    2043.5    1644.2    2082.5    1644.2    2119.7    1643.9    2130.1
GR   1643.9    2138.3   1643.8    2141.2    1643.7    2143.5    1643.7    2147.3    1643.8    2147.5
   CROSS SECTION J

NC                                    0.1       0.3
NH        4     0.016    1083.0      0.06    1238.0     0.016    1275.0      0.06    2327.2
ET              7.1                                           1049.0    2327.2
X1      202        86      1742    1799.2       165       165       165
GR   1641.9      1000   1642.4      1015    1642.6    1642.2    1642.7      1049    1642.3      1083
GR   1642.4      1142   1642.6      1238    1642.2      1275    1641.8      1291    1642.4      1310
GR   1642.3      1349   1642.5    1386.8    1642.4    1388.4    1642.3    1413.4    1642.5    1499.5
GR   1642.5    1500.4   1642.2    1562.6    1642.7    1599.1    1642.6    1649.2    1642.7    1700.6
GR   1643.4      1742   1643.1    1744.2    1643.1    1746.2    1642.9    1747.5    1642.7    1749.8
GR   1641.7    1756.1   1643.1    1767.1    1643.2    1768.5    1643.3    1799.2    1643.2    1807.6
GR   1645.4    1814.6     1645    1819.4    1643.6    1827.4      1644    1836.3    1645.3    1841.5
GR   1645.7    1843.4   1645.9    1845.4    1643.4    1891.2    1642.8    1898.9    1642.3    1899.4
GR   1644.9    1908.8     1646    1912.1    1644.5      1917    1642.4      1925    1642.6      1939
1
   28AUG98     09:05:38                                                                        PAGE    8
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GR	1642.7	1942.9	1642.6	1955.5	1642	1976.2	1642.9	1983.4	1643.7	1992.1
GR	1643.6	1993.5	1643.5	1997.4	1643.8	2002.2	1644.2	2044.8	1643.9	2066.5
GR	1645.1	2077.5	1646.4	2091	1646.7	2095.4	1646.9	2099.7	1647	2103.8
GR	1646.9	2106.5	1646.6	2109	1645.9	2121.9	1645.6	2129.5	1644.8	2140.2
GR	1644.8	2142.3	1644	2152.1	1643.7	2160.4	1643.5	2170.6	1643.7	2179.9
GR	1643.8	2182.2	1644.2	2205.7	1644	2214.5	1644	2220.5	1644.1	2230.7
GR	1644.3	2241.7	1644.4	2244.7	1644.4	2250.5	1644.8	2275.2	1644.9	2286.9
GR	1645.1	2296.2	1645.1	2300	1644.9	2306.1	1645.9	2321.5	1646.1	2323.7
GR	1646	2327.2								

CROSS SECTION K

NH	5	0.016	1132.0	0.055	1800.8	0.016	1818.4	0.06	2307.3	0.045
NH	2806						1105	2806		
ET		7.1					390			
X1	203	87	2064.6	2173.3	390	390	1643	1042	1644	1058
GR	1645.4	1000	1644	1021	1643	1033	1646	1117	1645.3	1132
GR	1645	1071	1646	1085	1646.1	1105	1645.2	1372	1645.4	1416
GR	1645	1147	1645.1	1206	1645.3	1261	1646.2	1511	1646.3	1515.4
GR	1645.1	1434.3	1645.6	1466.3	1645.7	1478.9	1646.2	1516	1646.7	1619.4
GR	1646.3	1523.8	1646.4	1568.9	1646.6	1596.8	1646.7	1778.2	1645.3	1781
GR	1646.3	1678.4	1646.1	1761.1	1645.9	1773.4	1645.6	1846.8	1646	1856.1
GR	1646	1800.8	1646.2	1818.4	1644.8	1826.6	1645.6	2100.6	1644.9	2115.3
GR	1645.5	1964.5	1645.5	1984.6	1645.5	2064.6	1645.2	2278.3	1646.7	2296.4
GR	1645.2	2173.3	1648.3	2225.6	1649	2265	1646.3	2353.8	1649.4	2365.9
GR	1647	2307.3	1647.5	2320.9	1648	2339.7	1648.6	2390.3	1646.6	2419.1
GR	1649.1	2366.9	1648.7	2371.9	1647.9	2378.3	1647.4	2457	1645.6	2458.6
GR	1646.5	2427.6	1646.3	2439.7	1645.9	2454.3	1645.8	2480.2	1645.4	2485.2
GR	1645.5	2459.9	1645.5	2463.9	1645.8	2478.1	1645.8	2565.8	1646.4	2579.3
GR	1645.7	2512	1645.8	2517.7	1645.9	2538	1646.6	2625.1	1645.5	2651.9
GR	1646.3	2583.3	1646.3	2610.9	1646.2	2612.1	1646.1	2715.9	1647.1	2730.2
GR	1645.4	2653.8	1646	2673.8	1646.7	2709.4	1647.1	2797.5	1647.3	2802.1
GR	1646.9	2732.6	1646.6	2765.9	1646.9	2795.2	1646.9			
GR	1647.7	2804.9	1647.8	2806						

CROSS SECTION L

NH	7	0.016	1024.00	0.03	1090.90	0.016	1139.50	0.05	2066.20	0.016
NH	2104.9	0.06	2364.20	0.045	2884.40					
X1	204	90	2021.50	2364.20	350	350	350			
GR	1649.2	1000	1648.1	1024	1648	1032	1646	1051	1645.9	1057
GR	1646	1063	1648	1078	1648.60	1090.90	1649.10	1104.20	1648.20	1139.50
GR	1647.7	1162.80	1647.70	1169.20	1647.80	1187.00	1648.30	1230.00	1648.40	1238.70
GR	1648.4	1241.20	1648.40	1246.40	1648.40	1255.00	1648.40	1304.10	1648.50	1346.90
GR	1648.5	1352.50	1648.70	1396.00	1648.70	1398.60	1648.70	1436.70	1648.90	1483.40
GR	1649.1	1502.50	1648.80	1534.00	1648.60	1550.00	1648.80	1604.80	1648.90	1618.10
GR	1648.8	1624.60	1648.50	1653.70	1648.50	1653.80	1648.40	1655.50	1648.20	1664.10
GR	1648.1	1668.20	1648.10	1669.70	1648.20	1671.60	1648.80	1681.20	1648.70	1693.60
GR	1648.4	1702.40	1648.40	1712.70	1648.40	1752.50	1648.10	1791.40	1648.10	1802.50
GR	1648.2	1813.70	1648.50	1852.50	1648.30	1875.40	1647.80	1963.00	1648.80	1998.80
GR	1648.9	2017.60	1648.90	2021.50	1648.70	2032.30	1648.30	2055.70	1648.20	2062.70
GR	1648.2	2063.10	1648.20	2063.12	1648.10	2066.20	1647.00	2104.90	1647.00	2106.70
GR	1647.2	2112.40	1647.30	2114.60	1647.70	2151.20	1648.10	2205.50	1648.20	2212.80
GR	1648.6	2364.20	1647.80	2458.00	1647.70	2485.40	1647.90	2502.50	1647.80	2521.50
GR	1647.7	2552.50	1647.60	2582.90	1647.60	2602.50	1648.00	2632.40	1648.20	2652.60
GR	1648.4	2673.20	1648.60	2702.50	1649.00	2731.30	1649.20	2752.50	1649.50	2774.30

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GR	1649.3	2802.60	1649.10	2811.50	1649.20	2812.10	1649.40	2824.00	1649.40	2825.90
GR	1649.6	2842.50	1649.70	2854.90	1650.00	2876.10	1650.00	2880.20	1650.10	2884.40

CROSS SECTION M

NC				0.1	0.3					
NH	8	0.016	1025	0.03	1082	0.016	1138	0.05	2069.4	0.035
NH	2183.1	0.016	2226.1	0.05	2401.3	0.045	3192.3			
ET		7.1					1000	3192.3		
X1	205	95	1976.9	2306	160	255	240			
GR	1650.2	1000	1649	1025	1648	1045	1646.8	1057	1648	1066
GR	1649.7	1082	1650.3	1105	1650.2	1138	1649.6	1166	1649.4	1173.3
GR	1649	1176.6	1649	1186.6	1649.4	1215.2	1650.1	1296.4	1650	1358
GR	1650.1	1367.1	1650.3	1420.1	1650.3	1446.6	1650.4	1467.7	1650.3	1470.1
GR	1650.1	1518	1649.7	1546.1	1649.9	1644.1	1649.5	1697.4	1649.6	1716.1
GR	1649.4	1741.8	1649.4	1775.3	1649.7	1805.8	1649.8	1827.4	1650.2	1869.7
GR	1650.9	1970.3	1650.9	1976.9	1649.6	2062.6	1649.7	2065.6	1649.8	2066.7
GR	1649.6	2069.4	1649.5	2121.1	1649.5	2162.2	1650.8	2168.5	1651.2	2169.6
GR	1651.2	2177.1	1651	2178	1649.2	2183.1	1648.7	2226.1	1650.7	2232.4
GR	1651.3	2237.8	1651.3	2239.1	1650.9	2242.8	1650.3	2246.6	1650.1	2247.3
GR	1648.9	2253.6	1649.7	2280.9	1650	2289.2	1652.2	2302.5	1652.5	2306
GR	1650.5	2320.2	1650.4	2322	1649.8	2327.7	1649.4	2364.9	1649.4	2369.5
GR	1649.1	2378.9	1649	2379.9	1648.3	2401.3	1648.4	2403	1648.8	2437.5
GR	1649	2468.3	1649.1	2472.9	1649.3	2573.4	1649.7	2605.2	1649.8	2623.7
GR	1649.6	2649.7	1649.4	2652.2	1649.4	2654	1649	2665.1	1649.6	2672.5
GR	1649.7	2672.9	1649.7	2685.5	1650.2	2724.2	1650.5	2758.6	1650.7	2774.5
GR	1650.7	2787.5	1651	2824.8	1651.2	2875	1651.2	2926	1651.7	2953.3
GR	1652.3	2973.5	1652.6	2978.7	1652.8	2994.3	1653.4	3076.1	1653.5	3081
GR	1653.7	3126.4	1653.5	3152.2	1653.4	3176.6	1653.6	3188.4	1653.6	3192.3

QT	1	6342

CROSS SECTION N

NC	0.055	0.055	0.035	0.1	0.3					
X1	205.2	88	1021.90	1203.90	350	580	500			
GR	1652.6	1000.00	1652.70	1011.90	1652.50	1020.70	1652.70	1021.90	1652.60	1025.80
GR	1652.4	1040.10	1652.30	1045.40	1651.80	1049.50	1650.80	1056.80	1650.30	1071.90
GR	1650.0	1075.50	1650.00	1079.20	1651.30	1100.50	1651.30	1100.70	1651.40	1100.72
GR	1649.9	1127.10	1649.50	1133.90	1649.50	1139.60	1649.70	1152.80	1651.30	1156.90
GR	1652.0	1158.70	1652.00	1161.70	1652.20	1171.50	1652.50	1178.80	1655.20	1199.10
GR	1655.7	1203.90	1655.50	1204.90	1653.70	1217.30	1652.70	1224.20	1652.50	1232.80
GR	1652.3	1238.50	1652.20	1245.70	1652.10	1262.10	1652.40	1268.50	1652.80	1278.40
GR	1652.8	1281.10	1652.50	1290.70	1653.00	1298.90	1653.00	1309.70	1652.70	1327.20

GR	1652.4	1345.30	1652.40	1386.30	1652.40	1398.60	1652.40	1405.80	1652.00	1451.90
GR	1650.7	1502.80	1650.80	1506.80	1650.60	1507.20	1652.00	1554.70	1652.00	1557.90
GR	1652.0	1562.60	1651.90	1611.90	1652.00	1628.80	1651.80	1665.10	1651.80	1674.60
GR	1652.1	1718.40	1652.30	1745.50	1652.40	1771.80	1652.80	1818.60	1652.90	1823.30
GR	1652.9	1825.10	1652.90	1829.70	1653.20	1879.50	1653.20	1900.40	1652.90	1931.70
GR	1653.1	1962.60	1653.30	1983.10	1652.70	2000.10	1652.70	2004.40	1653.30	2016.50
GR	1653.8	2022.60	1653.70	2026.10	1653.80	2040.50	1653.90	2049.40	1653.70	2091.60
GR	1653.7	2096.50	1653.70	2097.10	1653.90	2107.00	1654.30	2144.90	1654.80	2163.40
GR	1654.8	2191.50	1654.60	2198.30	1654.60	2203.80	1654.80	2216.70	1654.80	2251.00
GR	1654.8	2251.40	1654.80	2251.60	1655.10	2288.80				

CROSS SECTION O

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X1	205.3	75	1000.00	1173.20	375	395	372			
GR	1655.0	1000.00	1655.20	1001.20	1655.10	1009.00	1654.90	1016.10	1653.50	1019.30
GR	1651.4	1024.00	1651.40	1032.40	1651.20	1041.70	1651.00	1056.60	1651.00	1056.70
GR	1651.0	1056.72	1651.00	1056.80	1651.00	1057.10	1652.40	1099.80	1652.10	1100.60
GR	1649.9	1105.00	1649.90	1115.20	1649.90	1120.80	1653.20	1130.30	1653.80	1132.10
GR	1653.9	1133.70	1654.00	1140.00	1654.70	1152.00	1657.50	1169.40	1658.20	1173.20
GR	1657.4	1174.90	1656.80	1176.30	1654.80	1186.60	1653.20	1194.40	1652.00	1221.60
GR	1651.1	1247.50	1651.80	1250.40	1654.30	1259.80	1654.20	1270.30	1653.90	1288.40
GR	1653.7	1288.70	1653.40	1300.20	1653.00	1327.40	1653.10	1341.10	1653.00	1364.70
GR	1652.7	1397.00	1652.70	1401.90	1652.70	1411.70	1652.80	1453.00	1652.50	1494.70
GR	1652.4	1508.90	1652.40	1523.00	1652.50	1536.40	1652.90	1578.40	1653.10	1592.80
GR	1653.2	1598.00	1653.40	1612.40	1652.90	1633.70	1652.90	1634.60	1653.90	1638.40
GR	1654.0	1639.10	1654.00	1641.10	1654.00	1642.80	1654.20	1669.30	1654.20	1670.50
GR	1654.2	1691.40	1654.10	1726.60	1654.10	1735.90	1654.80	1748.80	1654.30	1754.70
GR	1654.2	1755.50	1654.80	1761.30	1655.20	1763.20	1654.70	1767.90	1654.40	1781.80
GR	1654.4	1785.30	1654.60	1795.00	1654.90	1844.70	1655.20	1854.90	1656.00	1884.50

CROSS SECTION P

X1	205.4	95	1000.00	1160.70	510	480	510			
GR	1662.3	1000.00	1662.20	1002.80	1662.10	1008.50	1659.80	1013.30	1654.80	1024.30
GR	1652.8	1030.30	1652.70	1038.50	1652.30	1082.90	1652.90	1093.50	1653.00	1093.70
GR	1652.4	1095.80	1652.20	1096.70	1652.10	1096.90	1651.80	1098.10	1651.30	1111.10
GR	1651.1	1115.80	1653.60	1120.90	1654.70	1122.90	1654.80	1127.70	1655.30	1140.80
GR	1660.0	1157.90	1660.90	1160.70	1660.80	1161.70	1660.20	1168.80	1660.30	1169.60
GR	1660.6	1171.40	1661.40	1176.60	1659.30	1187.70	1658.30	1193.30	1658.10	1200.40
GR	1657.6	1222.40	1657.40	1231.30	1657.40	1231.70	1657.30	1235.60	1656.70	1301.80
GR	1656.7	1304.20	1656.60	1338.40	1656.40	1372.30	1656.40	1372.80	1656.40	1374.50
GR	1656.0	1422.80	1655.40	1468.10	1655.30	1472.90	1656.00	1503.50	1656.00	1510.80
GR	1656.0	1516.40	1655.90	1524.50	1655.90	1527.30	1655.80	1530.60	1655.80	1538.70
GR	1655.8	1573.00	1655.10	1613.30	1655.10	1622.90	1655.00	1633.30	1655.00	1672.90
GR	1655.0	1685.00	1655.00	1723.00	1655.00	1736.80	1655.10	1773.00	1655.20	1788.50
GR	1655.5	1823.10	1656.30	1841.70	1657.00	1867.10	1656.20	1870.80	1656.10	1871.70
GR	1655.9	1871.90	1656.30	1875.60	1657.00	1878.70	1656.30	1886.10	1655.90	1888.10
GR	1655.7	1892.00	1656.30	1903.50	1656.20	1911.00	1655.90	1923.20	1655.90	1943.90
GR	1655.9	1973.10	1656.70	2012.40	1657.10	2020.30	1656.80	2022.70	1656.40	2027.20
GR	1656.5	2029.50	1657.20	2031.80	1656.40	2047.00	1656.10	2047.30	1656.20	2073.20
GR	1656.7	2076.90	1656.60	2079.10	1656.50	2080.50	1656.70	2081.30	1656.60	2082.70
GR	1656.1	2091.20	1656.10	2091.50	1657.80	2095.50	1659.30	2099.30	1659.30	2099.60

CROSS SECTION Q

X1	205.5	96	1000	1139.9	380	290	370			
GR	1662.5	1000	1662.4	1006.7	1659.6	1014.4	1655	1025	1654.7	1051
GR	1656	1058.6	1653.4	1067.1	1653	1085.1	1657.3	1095.6	1659.1	1101.1
GR	1659.7	1113.9	1660.2	1119.2	1663.3	1139.9	1659.8	1149.7	1658.4	1192.8
GR	1659	1233.2	1657.4	1242.1	1656.7	1259	1655.9	1343.1	1656.5	1373.5
GR	1657.4	1377.4	1657.3	1377.9	1657.5	1378.8	1657.8	1384.4	1658.9	1389.5
GR	1658.8	1407.3	1658.3	1432.8	1658.6	1458.3	1658.5	1462.9	1662.2	1473.2
GR	1659.6	1498.8	1658.5	1550.9	1660.9	1581.8	1658.3	1594.1	1658.5	1619.2
GR	1659.1	1621.6	1661.6	1636.2	1660.3	1648.7	1659.2	1669.6	1658.4	1676.7
GR	1659.3	1737.7	1659.2	1741.4	1660.5	1743.4	1661.1	1752.5	1661.4	1754.2
GR	1661	1762.3	1659.9	1767.6	1659.5	1770.8	1660.5	1776.8	1660	1779.9
GR	1660.2	1780.9	1659.9	1795.4	1660.4	1796.9	1659.5	1804.5	1659.2	1823.7
GR	1660.2	1852.9	1659.9	1858.5	1659.9	1864.2	1660.4	1869	1662	1877.6

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GR	1661.1	1881.8	1661.3	1885.3	1660.9	1892.3	1660.9	1902.4	1662.1	1910.4
GR	1660.5	1923	1659.6	1929.1	1659.8	1939.2	1661.8	1948.3	1661.2	1954.9
GR	1661.3	1957.2	1660.7	1977.6	1660.1	1982.7	1660.1	2028.6	1659.9	2036.6
GR	1660.6	2041.5	1661	2041.8	1661.4	2041.9	1661.4	2043.6	1661.8	2046.9
GR	1661.3	2059	1660.8	2062.5	1660.1	2088.1	1660.2	2102.2	1659.7	2126.6
GR	1661.1	2165.3	1659.8	2180.6	1659.7	2186	1660.1	2199.6	1660.6	2251.7
GR	1661	2257.5	1661.2	2276.6	1660.3	2287.8	1660.9	2294.9	1660.5	2306.8
GR	1660.6	2338								

CROSS SECTION R

X1	205.6	90	1000	1131.1	490	420	490			
GR	1667	1000	1666.8	1009.2	1658.9	1022.3	1658.4	1039.1	1658.4	1043.2
GR	1657.7	1045	1655.3	1052.9	1655.3	1062.4	1656	1063.7	1656	1064
GR	1656.8	1065.4	1659.4	1070.6	1659.7	1081	1659.8	1093.1	1664	1112.1
GR	1664.7	1115.7	1664.8	1127.2	1665.5	1131.1	1663.7	1137.1	1663.1	1140.8
GR	1661.5	1146.6	1661.1	1170.8	1660.6	1190.6	1660.8	1202.3	1661	1227
GR	1658.8	1234.4	1658.2	1295.1	1659.2	1347.8	1660.4	1366.5	1661.7	1377.8
GR	1661.2	1383.7	1660.8	1399.6	1661.2	1418.9	1661.3	1420.4	1661.7	1450.3
GR	1661.3	1500.4	1660.1	1529.9	1660	1534.5	1660.6	1545.6	1660.8	1547.4
GR	1660.8	1549.1	1661.4	1560.6	1662.2	1582.8	1662.3	1597.2	1662.6	1615.7
GR	1662.7	1650.4	1663.2	1671.2	1663.1	1675.9	1663.1	1692.8	1663.3	1695.4
GR	1663.5	1696.6	1664.7	1710.1	1664.8	1715.2	1664.9	1716.8	1664.3	1733.5
GR	1664.7	1737	1664.6	1751.7	1662.7	1760	1662.7	1776.3	1662.3	1783.9
GR	1662.3	1786.4	1661.7	1800.4	1661.6	1823.9	1661.7	1833.9	1663.7	1839.1
GR	1663.9	1839.8	1663.5	1841.2	1661.5	1846	1661.7	1850.5	1661.7	1859.2
GR	1661.9	1866.9	1661.5	1900.4	1661.5	1937.6	1661.8	1988.4	1661.9	2050.4
GR	1662	2061.4	1662.1	2100.5	1662.5	2150.4	1662.5	2191.3	1662.6	2209.4
GR	1662.4	2250.5	1662.8	2292.7	1663	2350.5	1663.2	2355.6	1663.9	2400.3

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GR   1663.8     2400.4     1664.6     2429.7     1665.5     2444.8     1665.2     2444.9     1665.4     2458.1
   CROSS SECTION S

NC     .045       .035       .045
ET                  7.1                                              2300.0       3015
X1       210         91       2298     2431.3        110        255        245
GR      1663       1000     1663.3     1008.9       1663     1092.8     1663.5     1106.4       1663     1145.5
GR    1663.4     1190.9     1664.2     1196.4       1665     1210.9       1664     1226.4     1663.6     1242.5
GR    1662.4     1246.8     1663.5     1249.7     1664.5     1351.2     1663.3     1394.1     1662.3     1411.9
GR    1663.4     1420.1       1664     1421.2     1664.5     1443.7     1663.9     1454.2       1664     1463.4
GR    1664.5     1467.9     1664.2     1498.7     1664.5     1529.9     1663.5     1544.8     1665.2     1568.6
GR    1663.9     1574.6     1664.6     1636.7     1662.6     1712.8     1664.4     1752.7     1664.2     1904.6
GR    1663.6     1924.7     1663.6     1959.4     1665.1     1964.7     1663.5     1979.2       1664     1984.1
GR      1664     2143.4     1665.2       2293     1665.3       2298       1662       2307       1661     2331.5
GR    1658.1     2345.9     1657.9     2356.5     1659.8     2359.9     1661.4     2364.1     1660.7     2372.2
GR    1659.9     2375.3     1661.9     2397.8     1665.9     2431.3     1663.5     2444.7     1662.4     2511.1
GR    1663.7       2516     1661.5     2561.2       1662     2575.5     1660.8     2607.9     1661.7     2654.5
GR    1661.1     2662.4     1662.1     2687.5     1661.8     2711.7     1662.3       2824     1662.7     2837.5
GR    1661.7     2866.8     1663.4     2910.8     1664.4     2917.3     1663.7     2919.8     1666.1     3027.7
GR    1664.1     3135.8     1664.6     3150.9       1663     3186.6     1663.7     3214.2     1663.1     3254.5
GR      1664     3259.8     1662.3     3267.8     1664.3     3283.6     1665.4     3313.9     1664.5     3362.5
GR    1664.9     3382.6     1664.6     3388.4     1665.3     3419.1     1664.8     3448.1     1665.4     3476.9
GR    1665.2     3520.2     1664.7     3543.2     1665.5     3565.7     1666.4       3675     1664.7     3685.6
GR    1664.6     3718.8     1665.9     3849.7     1665.6     3863.5     1666.8     3957.1       1667     4136.5
GR    1667.1     4233.4

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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO 100.000
   100.000       8.04    1554.24        .00    1560.00    1555.28       1.04        .00        .00    1556.00
   11500.0         .0    11500.0         .0         .0     1404.3         .0         .0         .0    1556.00
       .00        .00       8.19        .00       .000       .035       .000       .000    1546.20    1727.05
   .004426         0.         0.         0.          0          0          5        .00     283.19    2010.24

FLOW DISTRIBUTION FOR SECNO=    100.00          CWSEL=   1554.24

STA=    1727.     2012.
  PER Q=    100.0
   AREA=   1404.3
    VEL=      8.2
  DEPTH=      5.0

*SECNO 102.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   102.000       8.36    1564.66    1564.66        .00    1566.91       2.25       9.76        .36    1564.00
   11500.0       39.7    11459.7         .6       25.1      949.6         .4       41.8        9.8    1564.00
       .04       1.58      12.07       1.46       .045       .035       .045       .000    1556.30    1773.97
   .009989       1590.      1530.      1500.          2          8          0        .00     273.35    2047.32

FLOW DISTRIBUTION FOR SECNO=    102.00          CWSEL=   1564.66

STA=    1774.     1850.     2046.     2047.
  PER Q=       .3       99.6         .0
   AREA=      25.1      949.6         .4
    VEL=       1.6       12.1        1.5
  DEPTH=        .3        4.8         .3

*SECNO 103.000
1
   28AUG98      09:05:38                                                                          PAGE   14

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.65

   103.000      10.68    1569.88        .00        .00    1571.10       1.22       4.09        .10    1568.00
   11500.0      808.6    10623.8       67.6      331.1     1153.0       35.3       62.4       15.9    1568.00
       .06       2.44       9.21       1.91       .045       .035       .045       .000    1559.20    1274.81
   .003656       720.       720.       720.          3          0          0        .00     462.79    1737.60
```

FLOW DISTRIBUTION FOR SECNO= 103.00 CWSEL= 1569.88

STA=	1275.	1334.	1412.	1532.	1700.	1738.
PER Q=	.6	2.2	4.2	92.4	.6	
AREA=	43.8	103.7	183.6	1153.0	35.3	
VEL=	1.6	2.4	2.7	9.2	1.9	
DEPTH=	.7	1.3	1.5	6.9	.9	

*SECNO 104.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

3470 ENCROACHMENT STATIONS= 1650.0 3370.0 TYPE= 1 TARGET= 1720.000

104.000	8.32	1572.82	1572.70	1572.82	1573.96	1.15	2.85	.01	1574.00
11500.0	.0	6366.9	5133.1	.0	657.9	731.5	79.4	22.0	1574.00
.08	.00	9.68	7.02	.000	.035	.045	.000	1564.50	2221.29
.009595	510.	510.	510.	8	19	0	.00	575.08	2955.35

FLOW DISTRIBUTION FOR SECNO= 104.00 CWSEL= 1572.82

STA=	2221.	2420.	2595.	2670.	2680.	2710.	2730.	2745.	2755.	2820.	2955.
PER Q=	55.4	.2	5.7	2.6	12.4	9.0	6.3	2.6	5.0	.9	
AREA=	657.9	12.6	136.5	38.2	150.6	105.4	76.1	38.2	118.3	55.5	
VEL=	9.7	1.8	4.8	7.8	9.5	9.8	9.5	7.8	4.8	1.8	
DEPTH=	3.6	.1	1.8	3.8	5.0	5.3	5.1	3.8	1.8	.4	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 106.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1500.0 3050.0 TYPE= 1 TARGET= 1550.000

106.000	4.95	1581.65	.00	1581.65	1582.24	.59	8.22	.06	1580.00
11500.0	339.3	11063.8	96.9	149.4	1759.1	42.7	121.1	40.4	1580.00
.12	2.27	6.29	2.27	.045	.035	.045	.000	1576.70	2138.69
.006120	1120.	1100.	1040.	6	0	0	.00	908.12	3046.80

FLOW DISTRIBUTION FOR SECNO= 106.00 CWSEL= 1581.65

STA=	2139.	2320.	2995.	3047.
PER Q=	3.0	96.2	.8	
AREA=	149.4	1759.1	42.7	
VEL=	2.3	6.3	2.3	
DEPTH=	.8	2.6	.8	

CCHV= .100 CEHV= .300
*SECNO 108.000

3470 ENCROACHMENT STATIONS= 1600.0 3085.0 TYPE= 1 TARGET= 1485.000

108.000	4.66	1587.46	.00	1587.46	1587.69	.22	5.41	.04	1584.00
11500.0	5102.5	4888.4	1509.1	1548.1	1108.8	473.6	182.8	64.9	1584.00
.20	3.30	4.41	3.19	.055	.055	.065	.000	1582.80	1955.29
.004250	1000.	1100.	1000.	3	0	0	.00	1129.71	3085.00

FLOW DISTRIBUTION FOR SECNO= 108.00 CWSEL= 1587.46

STA=	1955.	2080.	2250.	2410.	2640.	2920.	2940.	2968.	3000.	3045.	3065.	3085.
PER Q=	1.1	7.4	11.8	24.1	42.5	1.4	1.9	3.5	5.0	1.2	.2	
AREA=	91.5	317.4	410.8	728.5	1108.8	54.3	76.1	115.8	162.8	49.3	15.3	
VEL=	1.4	2.7	3.3	3.8	4.4	2.9	2.9	3.5	3.5	2.7	1.2	
DEPTH=	.7	1.9	2.6	3.2	4.0	2.7	2.7	3.6	3.6	2.5	.8	

*SECNO 110.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .64

3470 ENCROACHMENT STATIONS= 2060.0 4000.0 TYPE= 1 TARGET= 1940.000

110.000	3.40	1593.80	.00	1593.80	1594.11	.32	6.40	.03	1591.60
11500.0	6317.6	5078.5	103.8	1664.4	951.3	48.2	250.5	94.1	1592.00
.27	3.80	5.34	2.16	.065	.055	.065	.000	1590.40	2371.38
.010292	1010.	1000.	1150.	4	0	0	.00	1362.39	3733.77

FLOW DISTRIBUTION FOR SECNO= 110.00 CWSEL= 1593.80

STA=	2371.	2460.	2610.	2805.	3060.	3260.	3330.	3680.	3734.
PER Q=	.2	1.6	6.4	20.5	20.4	5.8	44.2	.9	
AREA=	21.8	103.8	261.8	584.6	528.5	164.0	951.3	48.2	
VEL=	.9	1.8	2.8	4.0	4.4	4.1	5.3	2.2	
DEPTH=	.2	.7	1.3	2.3	2.6	2.3	2.7	.9	

*SECNO 112.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.70

112.000	4.07	1599.97	.00	1599.97	1600.07	.10	5.93	.02	1599.30
11500.0	10284.0	532.5	683.4	3925.6	264.6	368.0	337.5	138.0	1599.70
.38	2.62	2.01	1.86	.065	.055	.065	.000	1595.90	1246.36
.003568	1050.	1050.	1030.	5	0	0	.00	2288.30	3640.26

FLOW DISTRIBUTION FOR SECNO= 112.00 CWSEL= 1599.97

STA=	1246.	1650.	2190.	2220.	2650.	2715.	2855.	2975.	3165.	3500.	3640.
PER Q=	4.7	39.3	3.6	32.4	4.1	4.6	.7	4.6	3.4	2.6	
AREA=	397.4	1603.3	120.6	1299.8	176.7	247.7	80.3	264.6	194.4	173.6	
VEL=	1.4	2.8	3.5	2.9	2.7	2.1	1.0	2.0	2.0	1.7	
DEPTH=	1.0	3.0	4.0	3.0	2.7	1.8	.7	1.4	.6	1.2	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .500 CEHV= .800
*SECNO 117.000

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

117.000	3.22	1612.12	1612.12	1612.12	1612.66	.54	3.86	.35	1615.00
11500.0	.0	11500.0	.0	.0	1955.8	.0	426.5	189.3	1614.00
.43	.00	5.88	.00	.000	.016	.000	.000	1608.90	1756.36
.003296	1350.	940.	1000.	20	14	0	.00	1689.09	4238.86

FLOW DISTRIBUTION FOR SECNO= 117.00 CWSEL= 1612.12

STA=	1756.	4490.
PER Q=	100.0	
AREA=	1955.8	
VEL=	5.9	
DEPTH=	1.2	

*SECNO 118.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.81

118.000	9.93	1612.93	1608.14	1612.93	1612.94	.01	.02	.26	1606.00
11500.0	6781.1	1483.9	3235.0	9285.7	950.5	3641.6	437.4	192.9	1606.30
.45	.73	1.56	.89	.070	.045	.055	.000	1603.00	891.28
.000142	60.	60.	60.	12	17	0	.00	3503.76	4432.13

FLOW DISTRIBUTION FOR SECNO= 118.00 CWSEL= 1612.93

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	891.	1545.	1850.	2100.	2280.	2430.	2580.	2700.	2800.	2870.	2980.	3110.	3240.
PER Q=	3.2	4.3	4.2	3.7	4.0	4.9	4.2	4.6	3.7	5.6	8.1	8.5	
AREA=	989.1	930.0	851.3	686.6	671.3	753.8	631.0	622.5	470.8	723.3	965.3	990.8	
VEL=	.4	.5	.6	.6	.7	.7	.8	.9	.9	.9	1.0	1.0	
DEPTH=	1.5	3.0	3.4	3.8	4.5	5.0	5.3	6.2	6.7	6.6	7.4	7.6	

STA=	3240.	3360.	3460.	3610.	3770.	3870.	4040.	4432.
PER Q=	12.9	6.0	7.3	6.6	3.2	3.5	1.5	
AREA=	950.5	627.5	828.8	804.0	432.5	565.3	383.4	
VEL=	1.6	1.1	1.0	.9	.9	.7	.5	
DEPTH=	7.9	6.3	5.5	5.0	4.3	3.3	1.0	

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*SECNO 120.000

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .18

   120.000      3.13   1613.13       .00   1613.13   1613.25       .12       .22       .08   1611.20
   11500.0    2699.5    1524.2    7276.3    1386.2     401.8    2647.6     536.4     228.0   1612.00
       .51      1.95      3.79      2.75      .070      .045      .055      .000   1610.00   1091.77
   .004193      260.      440.      835.         3         0         0       .00   2536.54   3648.20

FLOW DISTRIBUTION FOR SECNO=    120.00          CWSEL=   1613.13

STA=    1092.    1500.    1650.    1850.    2000.    2170.    2245.    2400.    2550.    2700.    3030.    3250.    3450.
  PER Q=      5.1      4.7      8.1      5.6     13.3      3.7     11.8      8.7      5.7      6.6     10.0     10.3
   AREA=    407.1    266.7    415.6    296.7    401.8    126.5    407.4    334.2    259.2    370.8    424.2    415.6
    VEL=      1.4      2.0      2.2      2.2      3.8      3.3      3.3      3.0      2.5      2.0      2.7      2.8
  DEPTH=      1.0      1.8      2.1      2.0      2.4      1.7      2.6      2.2      1.7      1.1      1.9      2.1

STA=    3450.    3620.    3648.
  PER Q=      6.4       .2
   AREA=    293.8     15.9
    VEL=      2.5      1.2
  DEPTH=      1.7       .6

CCHV=     .100 CEHV=     .300
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 122.000

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .69

3470 ENCROACHMENT STATIONS=          .0   3150.0  TYPE=      1  TARGET=    3149.999
   122.000      6.89   1616.39   1616.10   1616.39   1616.86       .47      3.51       .10   1614.00
   11500.0    5753.1    4561.4    1185.5    1756.7     582.0     672.8     588.2     260.0   1614.00
       .54      3.28      7.84      1.76      .070      .045      .070      .000   1609.50   1120.64
   .008738      520.      570.      700.        14        20         0       .00   1981.84   3293.70

FLOW DISTRIBUTION FOR SECNO=    122.00          CWSEL=   1616.39

STA=    1121.    1350.    1450.    1570.    1650.    1750.    1820.    1925.    1980.    2040.    2183.    2600.    3000.
  PER Q=      3.2      4.1      7.4      5.9      7.6      5.7      8.3      3.8      4.0     39.7      5.3      4.3
   AREA=    194.0    169.1    257.0    191.3    244.1    177.9    261.6    126.0    135.5    582.0    301.8    296.6
    VEL=      1.9      2.8      3.3      3.5      3.6      3.7      3.6      3.4      3.4      7.8      2.0      1.7
  DEPTH=       .8      1.7      2.1      2.4      2.4      2.5      2.5      2.3      2.3      4.1       .7       .7

STA=    3000.    3294.
  PER Q=      .7
   AREA=     74.5
    VEL=      1.0
  DEPTH=       .3

*SECNO 124.000

3265 DIVIDED FLOW

   124.000      8.11   1620.11       .00   1620.11   1620.60       .49      3.73       .01   1616.00
   11500.0    5992.9    4351.5    1155.6    2079.2     517.7     756.5     626.7     284.5   1616.00
       .57      2.88      8.41      1.53      .070      .045      .070      .000   1612.00    993.84
   .005892      525.      525.      530.         4         0         0       .00   2057.76   3085.57

FLOW DISTRIBUTION FOR SECNO=    124.00          CWSEL=   1620.11

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

STA=     994.    1180.    1330.    1430.    1550.    1650.    1730.    1955.    2040.    2440.    2930.    3086.
  PER Q=      3.1      7.4      3.7      6.9      7.9      4.9     18.3     37.8      6.6      3.1       .4
   AREA=    200.9    317.1    176.4    275.7    281.4    193.1    634.7    517.7    409.9    301.2     45.5
    VEL=      1.7      2.7      2.4      2.9      3.2      2.9      3.3      8.4      1.8      1.2       .9
  DEPTH=      1.1      2.1      1.8      2.3      2.8      2.4      2.8      6.1      1.0       .6       .3

CCHV=     .100 CEHV=     .300
*SECNO 126.000

3265 DIVIDED FLOW
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3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64

   126.000     3.43  1625.13      .00  1625.14  1625.23      .10     4.60      .04  1625.20
    7239.0   161.8   1234.3    5842.8    134.0    377.3   2470.3    684.0    318.7  1626.00
       .66     1.21     3.27     2.37     .070     .060     .070     .000  1621.70  1708.68
   .005736    1000.     840.     630.        5        0        0      .00  1888.97  3658.01


FLOW DISTRIBUTION FOR SECNO=    126.00          CWSEL=   1625.13

STA=    1709.    1933.    2110.    2243.    2320.    2385.    2455.    2655.    2855.    3055.    3255.    3485.    3658.
  PER Q=     2.2     17.1      4.0      6.1      3.4      3.7     15.7     15.1     13.3     10.1      7.8      1.5
   AREA=   134.0    377.3    127.3    164.4    109.5    117.9    426.9    416.9    386.9    326.9    295.4     98.1
    VEL=     1.2      3.3      2.3      2.7      2.3      2.3      2.7      2.6      2.5      2.2      1.9      1.1
  DEPTH=      .6      2.3      1.0      2.1      1.7      1.7      2.1      2.1      1.9      1.6      1.3       .6

CCHV=     .100 CEHV=     .300
*SECNO 128.000

3265 DIVIDED FLOW

   128.000     4.55  1629.55      .00  1629.56  1629.70      .15     4.45      .01  1628.00
    7239.0  4084.6   1739.7   1414.7   1474.5    443.4    508.6    731.3    349.1  1628.00
       .73     2.77     3.92     2.78     .070     .060     .050     .000  1625.00  1042.15
   .005921     750.     820.     750.        4        0        0      .00  1617.32  2976.32


FLOW DISTRIBUTION FOR SECNO=    128.00          CWSEL=   1629.55

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


STA=    1042.    1250.    1285.    1330.    1460.    1560.    1670.    1820.    1970.    2060.    2110.    2160.    2306.
  PER Q=     8.7      6.5      8.4     14.9      5.8      5.8      6.3     24.0      6.0      5.0      4.6      3.2
   AREA=   268.4    124.5    160.0    345.3    175.6    182.2    218.4    443.4    141.1    100.3     95.3    108.5
    VEL=     2.3      3.8      3.8      3.1      2.4      2.3      2.1      3.9      3.1      3.6      3.5      2.1
  DEPTH=     1.3      3.6      3.6      2.7      1.8      1.7      1.5      3.0      1.6      2.0      1.9       .7

STA=    2306.    2976.
  PER Q=      .7
   AREA=    63.4
    VEL=      .7
  DEPTH=      .1

CCHV=     .300 CEHV=     .500
*SECNO 130.000

3265 DIVIDED FLOW

   130.000     5.08  1632.88      .00  1632.88  1633.09      .21     3.36      .03  1634.00
    7239.0  4192.8   1441.9   1604.3   1341.7    282.1    465.4    755.9    364.6  1634.00
       .77     3.13     5.11     3.45     .070     .060     .050     .000  1627.80  1083.74
   .008520     460.     480.     520.        4        0        0      .00  1181.05  2446.50


FLOW DISTRIBUTION FOR SECNO=    130.00          CWSEL=   1632.88

STA=    1084.    1270.    1370.    1460.    1690.    1820.    1830.    1970.    2170.    2270.    2370.    2420.    2447.
  PER Q=     4.5      6.1      8.3     29.3      9.7       .1     19.9      3.2      6.9      8.6      3.3       .3
   AREA=   165.3    163.3    187.5    582.7    238.3      4.5    282.1     77.8    143.3    163.3     69.2     11.7
    VEL=     2.0      2.7      3.2      3.6      2.9      1.1      5.1      2.9      3.5      3.8      3.4      1.6
  DEPTH=      .9      1.6      2.1      2.5      1.8       .4      3.4       .4      1.4      1.6      1.4       .4

*SECNO 198.000

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   198.000     5.32  1638.12  1638.12  1638.12  1638.94      .82     4.77      .30  1637.70
    3898.0   477.2   3407.3     13.4    184.0    442.8     10.7    770.6    373.7  1637.90
       .79     2.59     7.70     1.25     .055     .060     .055     .000  1632.80  1433.31
   .014724     470.     470.     470.        1        8        0      .00   501.53  1958.72


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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


FLOW DISTRIBUTION FOR SECNO=    198.00          CWSEL=   1638.12

STA=    1433.    1540.    1592.    1778.    1791.    1897.    1959.
  PER Q=     4.3      4.4      3.2       .3     87.4       .3
   AREA=    60.6     52.3     65.2      6.0    442.8     10.7
```

```
   VEL=     2.8     3.3     1.9     2.0     7.7     1.3
 DEPTH=      .6     1.0      .3      .5     4.2      .2

SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC      COFQ      RDLEN      RISE      SPAN      CULVLN      CHRT      SCL      ELCHU      ELCHD
    6          .013       .20      2.90    1000.00      2.00     12.00      54.00      10         1     1633.50    1633.00

CHART 10 - BOX CULVERT; 90-DEGREE HEADWALL; CHAMFERED OR BEVELED INLET EDGES
SCALE  1 - INLET EDGES CHAMFERED 3/4-INCH

5130, EGIC= 1662.55..MAY BE TOO LARGE IF INLET CONTROLS.
5135, EGOC= 1655.50 ..MAY BE TOO LARGE IF OUTLET CONTROLS.
*SECNO 200.000

SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG =   1639.28

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.76

SPECIAL CULVERT

    EGIC       EGOC        H4       QWEIR      QCULV       VCH       ACULV      ELTRD      WEIRLN
 1662.55    1655.50       .34       2374.      1525.     7.400       144.0    1638.40      1000.


  200.000       5.06    1638.56        .00    1638.60    1639.28         .71        .34        .00    1637.90
   3898.0      393.1     3239.8      265.0      252.0      437.8      174.5      773.9      376.6    1638.20
      .79       1.56       7.40       1.52       .055       .035       .055       .000    1633.50    1392.94
 .004757       188.       188.       188.          8          0          0        .00     844.24    2523.46


FLOW DISTRIBUTION FOR SECNO=   200.00          QWSEL=   1638.56

STA=    1393.    1604.    1743.    1803.    1911.    2180.    2259.
  PER Q=     4.3      3.6      2.2     83.1      3.5      3.3
   AREA=   106.7     95.2     50.1    437.8    105.6     68.8
    VEL=     1.6      1.5      1.7      7.4      1.3      1.8
  DEPTH=      .5       .7       .8      4.1       .4       .9

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    SECNO      DEPTH      QWSEL      CRIWS      WSELK      EG         HV         HL         QLOSS      L-BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


1490 NH CARD USED
*SECNO 201.000
1530 MANNINGS N VALUES FOR CHANNEL COMPOSITED

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .54


3470 ENCROACHMENT STATIONS=     1069.2    2147.5  TYPE=       1  TARGET=     1078.300
   201.000       3.71    1642.61        .00    1642.57    1642.86         .24       3.44        .14  100000.00
    3898.0         .0     3897.9         .0         .0      989.9          .0      782.9      384.5  100000.00
       .82        .00       3.94        .00       .000       .058       .000       .000    1638.90    1069.20
 .016537       220.       430.       640.          4          0          0        .00     765.95    2020.77


FLOW DISTRIBUTION FOR SECNO=   201.00          QWSEL=   1642.61

STA=    1069.    2032.
  PER Q=    100.0
   AREA=    989.9
    VEL=      3.9
  DEPTH=      1.3

CCHV=     .100 CEHV=     .300
1490 NH CARD USED
*SECNO 202.000

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.98


3470 ENCROACHMENT STATIONS=     1049.0    2327.2  TYPE=       1  TARGET=     1278.200
   202.000       2.46    1644.16        .00    1644.15    1644.33         .18       1.47        .01    1643.40
    4633.6     4103.3      151.6      378.7     1172.1       69.7      181.8      787.4      387.9    1643.30
       .84       3.50       2.18       2.08       .047       .060       .060       .000    1641.70    1049.00
 .005961       165.       165.       165.          4          0          0        .00    1025.48    2233.87

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    SECNO      DEPTH      QWSEL      CRIWS      WSELK      EG         HV         HL         QLOSS      L-BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
```

```
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 FLOW DISTRIBUTION FOR SECNO=    202.00          CWSEL=   1644.16

 STA=    1049.    1083.    1142.    1238.    1275.    1310.    1349.    1387.    1500.    1563.    1599.    1649.    1701.
   PER Q=    11.9      6.5      9.2     14.7      5.0      4.3      4.0     12.0      7.0      3.7      4.1      4.2
    AREA=    56.4    106.6    159.1     65.0     73.6     70.5     66.4    199.2    113.9     62.3     75.5     77.5
     VEL=     9.8      2.8      2.7     10.4      3.1      2.8      2.8      2.8      2.8      2.7      2.5      2.5
   DEPTH=     1.7      1.8      1.7      1.8      2.1      1.8      1.8      1.8      1.8      1.7      1.5      1.5

 STA=    1701.    1742.    1799.    1943.    1976.    2234.
   PER Q=     2.0      3.3      3.0      3.4      1.7
    AREA=    45.9     69.7     68.6     57.4     55.7
     VEL=     2.0      2.2      2.0      2.8      1.4
   DEPTH=     1.1      1.2       .5      1.7       .2

 1490 NH CARD USED
 *SECNO 203.000

 3265 DIVIDED FLOW


 3470 ENCROACHMENT STATIONS=     1105.0    2806.0  TYPE=      1  TARGET=     1701.000
    203.000      4.16   1647.16       .00   1647.16   1647.37       .21      3.02       .01   1645.50
     7370.2    5213.4     827.5    1329.3    1390.6     217.7     408.9     802.8     399.3   1645.20
        .87      3.75      3.80      3.25       .052      .060      .046      .000   1643.00   1105.00
    .009329      390.      390.      390.         8         0         0       .00   1539.75   2800.40


 FLOW DISTRIBUTION FOR SECNO=    203.00          CWSEL=   1647.16

 STA=    1105.    1132.    1206.    1261.    1372.    1416.    1466.    1569.    1761.    1818.    1856.    1965.    2065.
   PER Q=     5.2      8.9      5.9     11.5      4.4      4.9      3.9      4.5      4.8      3.1      6.2      7.5
    AREA=    35.8    154.1    107.4    211.1     81.5     92.5    104.8    146.6     73.9     65.6    152.0    165.4
     VEL=    10.8      4.3      4.1      4.0      3.9      3.9      2.7      2.2      4.8      3.5      3.0      3.3
   DEPTH=     1.3      2.1      2.0      1.9      1.9      1.8      1.0       .8      1.3      1.7      1.4      1.7

 STA=    2065.    2173.    2460.    2512.    2579.    2652.    2766.    2800.
   PER Q=    11.2      3.1      4.8      3.1      3.6      3.2       .3
    AREA=   217.7     92.3     81.5     68.3     77.1     77.0     12.7
     VEL=     3.8      2.5      4.3      3.3      3.4      3.1      1.7
   DEPTH=     2.0       .3      1.6      1.0      1.1       .7       .4

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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


 1490 NH CARD USED
 *SECNO 204.000
 3280 CROSS SECTION    204.00 EXTENDED       .41 FEET

 3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.43

    204.000      3.71   1649.61       .00   1649.61   1649.79       .18      2.42       .00   1648.90
     8043.7    4166.9    1921.8    1954.9    1261.6     516.5     603.0     820.5     412.9   1648.60
        .90      3.30      3.72      3.24       .041      .039      .045      .000   1645.90   1000.00
    .005431      350.      350.      350.         4         0         0       .00   1843.50   2843.50


 FLOW DISTRIBUTION FOR SECNO=    204.00          CWSEL=   1649.61

 STA=    1000.    1051.    1063.    1078.    1140.    1187.    1246.    1347.    1483.    1654.    1753.    1853.    1963.
   PER Q=     6.9      4.7      3.3      4.4      3.3      3.1      3.6      3.2      3.4      3.5      4.5      5.8
    AREA=    85.0     43.9     39.1     60.8     83.9     87.2    119.3    124.8    139.5    115.4    134.7    164.1
     VEL=     6.5      8.7      6.9      5.9      3.2      2.8      2.5      2.1      1.9      2.5      2.7      2.9
   DEPTH=     1.7      3.7      2.6      1.0      1.8      1.5      1.2       .9       .8      1.2      1.3      1.5

 STA=    1963.    2022.    2066.    2105.    2364.    2458.    2503.    2553.    2603.    2653.    2812.    2843.
   PER Q=     1.9      1.4     11.0     11.5      5.0      3.7      4.1      4.7      3.6      3.0       .1
    AREA=    63.8     49.2     79.6    387.6    132.1     81.8     91.0     98.9     84.5    108.6      6.1
     VEL=     2.4      2.3     11.1      2.4      3.1      3.7      3.6      3.8      3.5      2.2       .9
   DEPTH=     1.1      1.1      2.1      1.5      1.4      1.8      1.8      2.0      1.7       .7       .2

 CCHV=     .100 CEHV=     .300
 1490 NH CARD USED
 *SECNO 205.000

 3265 DIVIDED FLOW


 3470 ENCROACHMENT STATIONS=     1000.0    3192.3  TYPE=      1  TARGET=     2192.300
    205.000      4.04   1650.84       .00   1650.84   1651.13       .29      1.31       .03   1650.90
     8159.0    3861.6    1879.4    2417.9     985.9     339.2     636.9     830.6     421.2   1652.50
        .91      3.92      5.54      3.80       .039      .026      .046      .000   1646.80   1000.00
    .007614      160.      240.      255.         2         0         0       .00   1742.80   2804.89

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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
```

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 205.00 CWSEL= 1650.84

STA=	1000.	1025.	1045.	1057.	1066.	1105.	1187.	1296.	1518.	1644.	1716.	1775.	1870.
PER Q=	3.5	4.4	5.0	3.7	4.4	3.7	5.1	3.6	4.1	3.0	3.3	3.3	
AREA=	31.0	46.8	41.3	31.0	51.2	79.4	135.4	146.2	128.3	84.9	82.7	98.4	
VEL=	9.2	7.6	9.8	9.8	7.0	3.8	3.0	2.0	2.6	2.9	3.2	2.7	
DEPTH=	1.2	2.3	3.4	3.4	1.3	1.0	1.2	.7	1.0	1.2	1.4	1.0	

STA=	1870.	1962.	2069.	2183.	2226.	2303.	2401.	2438.	2468.	2573.	2650.	2724.	2805.
PER Q=	.4	1.4	6.8	12.3	2.5	5.3	4.9	3.3	8.5	3.7	3.4	.4	
AREA=	29.4	58.5	129.9	81.3	69.5	121.7	81.5	59.7	173.0	92.4	84.8	23.7	
VEL=	1.2	2.0	4.3	12.4	2.9	3.6	5.0	4.5	4.0	3.3	3.3	1.5	
DEPTH=	.3	.7	1.3	1.9	1.2	1.2	2.3	1.9	1.6	1.2	1.1	.3	

CCHV= .100 CEHV= .300
*SECNO 205.200

3265 DIVIDED FLOW

3280 CROSS SECTION 205.20 EXTENDED 1.23 FEET

205.200	4.33	1653.83	.00	1653.83	1654.09	.26	2.96	.00	1652.70
5463.9	51.2	2446.8	2965.9	26.4	452.6	1191.2	851.4	436.8	1655.70
.95	1.94	5.41	2.49	.055	.035	.055	.000	1649.50	1000.00
.004315	350.	500.	580.	3	0	0	.00	1055.36	2103.59

FLOW DISTRIBUTION FOR SECNO= 205.20 CWSEL= 1653.83

STA=	1000.	1022.	1204.	1269.	1386.	1452.	1503.	1555.	1612.	1665.	1718.	1772.	1880.
PER Q=	.9	44.8	3.0	5.4	4.5	7.5	8.2	5.3	5.1	5.1	3.6	3.6	
AREA=	26.4	452.6	72.2	143.2	103.1	126.3	133.8	107.2	101.9	101.7	83.2	107.1	
VEL=	1.9	5.4	2.3	2.1	2.4	3.3	3.3	2.7	2.7	2.7	2.4	1.8	
DEPTH=	1.2	2.7	1.1	1.2	1.6	2.5	2.6	1.9	1.9	1.9	1.6	1.0	

STA=	1880.	2104.
PER Q=	3.0	
AREA=	111.5	
VEL=	1.4	
DEPTH=	.5	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 205.300

3265 DIVIDED FLOW

3280 CROSS SECTION 205.30 EXTENDED .34 FEET

205.300	5.44	1655.34	.00	1655.34	1655.60	.26	1.51	.00	1655.00
6338.4	.0	2606.7	3731.7	.0	484.2	1315.3	866.9	445.2	1658.20
.97	.00	5.38	2.84	.000	.035	.055	.000	1649.90	1000.00
.003623	375.	372.	395.	2	0	0	.00	832.32	1860.14

FLOW DISTRIBUTION FOR SECNO= 205.30 CWSEL= 1655.34

STA=	1000.	1173.	1222.	1248.	1300.	1341.	1397.	1453.	1495.	1523.	1578.	1612.	1669.
PER Q=	41.1	4.1	6.1	3.5	3.9	6.2	7.1	5.6	4.3	7.5	3.2	3.6	
AREA=	484.2	85.8	98.2	88.7	89.6	134.6	145.9	112.2	82.5	149.7	74.5	95.1	
VEL=	5.4	3.0	4.0	2.5	2.7	2.9	3.1	3.1	3.3	3.2	2.7	2.4	
DEPTH=	3.1	1.8	3.8	1.7	2.2	2.4	2.6	2.7	2.9	2.7	2.2	1.7	

STA=	1669.	1782.	1860.
PER Q=	3.0	.8	
AREA=	114.2	44.2	
VEL=	1.7	1.2	
DEPTH=	1.0	.6	

*SECNO 205.400

3265 DIVIDED FLOW

205.400	6.08	1657.18	.00	1657.18	1657.69	.52	2.01	.08	1662.30
6342.0	.0	3743.0	2599.0	.0	518.5	1069.4	885.9	455.3	1660.90
1.00	.00	7.22	2.43	.000	.035	.055	.000	1651.10	1019.07
.004605	510.	510.	480.	3	0	0	.00	972.65	2094.03

FLOW DISTRIBUTION FOR SECNO= 205.40 CWSEL= 1657.18

STA=	1019.	1161.	1468.	1527.	1613.	1673.	1723.	1773.	1823.	1944.	2073.	2094.
PER Q=	59.0	4.9	3.1	5.1	6.2	5.3	5.1	4.2	3.6	3.2	.3	
AREA=	518.5	170.1	84.1	132.2	128.2	109.0	106.9	94.5	117.9	111.9	14.6	
VEL=	7.2	1.8	2.3	2.5	3.1	3.1	3.0	2.8	1.9	1.8	1.5	
DEPTH=	4.0	.6	1.4	1.5	2.2	2.2	2.1	1.9	1.0	.9	.7	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 205.500

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

205.500	6.45	1659.45	1659.45	1659.45	1660.39	.94	2.04	.13	1662.50
6342.0	.0	3664.4	2677.6	.0	379.8	660.0	895.5	460.7	1663.30
1.01	.00	9.65	4.06	.000	.035	.055	.000	1653.00	1014.74
.008296	380.	370.	290.	2	8	0	.00	591.50	1831.02

FLOW DISTRIBUTION FOR SECNO= 205.50 CWSEL= 1659.45

STA=	1015.	1140.	1259.	1343.	1374.	1458.	1738.	1831.
PER Q=	57.8	4.7	22.1	8.4	3.8	3.2	.0	
AREA=	379.8	99.0	265.0	98.8	87.5	105.9	3.7	
VEL=	9.6	3.0	5.3	5.4	2.7	1.9	.7	
DEPTH=	4.0	.8	3.2	3.3	1.0	.4	.0	

*SECNO 205.600

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

205.600	7.39	1662.69	.00	1662.69	1663.03	.34	2.58	.06	1667.00
6342.0	.0	2377.3	3964.7	.0	355.6	1342.0	909.2	469.0	1665.50
1.04	.00	6.69	2.95	.000	.035	.055	.000	1655.30	1016.02
.004148	490.	490.	420.	3	0	0	.00	1091.65	2280.85

FLOW DISTRIBUTION FOR SECNO= 205.60 CWSEL= 1662.69

STA=	1016.	1131.	1202.	1295.	1348.	1367.	1419.	1530.	1583.	1938.	2101.	2281.
PER Q=	37.5	3.7	21.0	14.5	3.0	3.2	5.5	3.4	4.2	3.4	.5	
AREA=	355.6	95.8	319.0	210.2	54.0	85.2	155.8	83.4	159.4	137.7	41.6	
VEL=	6.7	2.5	4.2	4.4	3.5	2.4	2.3	2.6	1.7	1.6	.7	
DEPTH=	3.9	1.3	3.4	4.0	2.9	1.6	1.4	1.6	.4	.8	.2	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 210.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2300.0 3015.0 TYPE= 1 TARGET= 715.000

210.000	6.02	1663.92	.00	1663.92	1664.37	.45	1.30	.03	100000.00
6342.0	.0	1894.1	4447.9	.0	340.7	833.8	917.6	473.9	1665.90
1.05	.00	5.56	5.33	.000	.045	.035	.000	1657.90	2301.76
.006639	110.	245.	255.	3	0	0	.00	595.49	2929.71

FLOW DISTRIBUTION FOR SECNO= 210.00 CWSEL= 1663.92

STA=	2302.	2431.	2511.	2561.	2608.	2655.	2688.	2712.	2824.	2867.	2911.	2930.
PER Q=	29.9	3.5	4.1	11.1	13.1	7.6	4.1	17.4	5.3	4.1	.0	
AREA=	340.7	64.9	63.9	112.7	124.4	78.2	47.7	210.0	69.6	60.3	2.1	
VEL=	5.6	3.4	4.1	6.2	6.7	6.1	5.4	5.3	4.8	4.3	1.0	
DEPTH=	3.0	.8	1.3	2.4	2.7	2.4	2.0	1.9	1.6	1.4	.1	

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TW WEIR FLOW OVER BOULDER HIGHWAY BETWEEN SECTIONS 201 AND 202

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
735.63	775.04	5.22	735.63	775.04	5.22	27	1642.615	1644.157	201.000	202.000

TW WEIR FLOW OVER BOULDER HIGHWAY BETWEEN SECTIONS 202 AND 203

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
2736.62	2743.81	.26	3472.26	3518.85	1.33	27	1644.157	1647.158	202.000	203.000

TW WEIR FLOW OVER BOULDER HIGHWAY BETWEEN SECTIONS 203 AND 204

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
673.45	675.09	.24	4145.70	4193.94	1.16	27	1647.158	1649.610	203.000	204.000

TW WEIR FLOW OVER BOULDER HIGHWAY BETWEEN SECTIONS 204 AND 205

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
115.34	115.32	.02	4261.05	4309.26	1.13	27	1649.610	1650.839	204.000	205.000

TW WEIR BETWEEN SECTIONS 205.2 AND 205.3

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
874.45	874.23	.03	5135.50	5183.49	.93	27	1653.832	1655.340	205.200	205.300

TW WEIR BETWEEN SECTIONS 205.3 AND 205.4

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
3.60	3.61	.26	5139.10	5187.10	.93	27	1655.340	1657.175	205.300	205.400

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THIS RUN EXECUTED 28AUG98 09:05:45

****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

DUCK CREEK
SUMMARY PRINTOUT

	SECNO	Q	QLOB	QCH	QROB	VCH	CWSEL	SSTA	ENDST	TOPWID	AREA
	100.000	11500.00	.00	11500.00	.00	8.19	1554.24	1727.05	2010.24	283.19	1404.31
*	102.000	11500.00	39.65	11459.70	.64	12.07	1564.66	1773.97	2047.32	273.35	975.15
*	103.000	11500.00	808.57	10623.79	67.64	9.21	1569.88	1274.81	1737.60	462.79	1519.42
*	104.000	11500.00	.00	6366.86	5133.14	9.68	1572.82	2221.29	2955.35	575.08	1389.38
	106.000	11500.00	339.33	11063.75	96.92	6.29	1581.65	2138.69	3046.80	908.12	1951.23
	108.000	11500.00	5102.52	4888.38	1509.09	4.41	1587.46	1955.29	3085.00	1129.71	3130.55
*	110.000	11500.00	6317.61	5078.54	103.85	5.34	1593.80	2371.38	3733.77	1362.39	2663.92
*	112.000	11500.00	10284.02	532.53	683.45	2.01	1599.97	1246.36	3640.26	2288.30	4558.28
*	117.000	11500.00	.00	11500.00	.00	5.88	1612.12	1756.36	4238.86	1689.09	1955.85
*	118.000	11500.00	6781.14	1483.86	3235.00	1.56	1612.93	891.28	4432.13	3503.76	13877.78
*	120.000	11500.00	2699.48	1524.20	7276.32	3.79	1613.13	1091.77	3648.20	2536.54	4435.58
*	122.000	11500.00	5753.07	4561.44	1185.48	7.84	1616.39	1120.64	3293.70	1981.84	3011.46
	124.000	11500.00	5992.87	4351.48	1155.65	8.41	1620.11	993.84	3085.57	2057.76	3353.47
*	126.000	7238.95	161.83	1234.30	5842.83	3.27	1625.13	1708.68	3658.01	1888.97	2981.59
	128.000	7238.95	4084.55	1739.74	1414.66	3.92	1629.55	1042.15	2976.32	1617.32	2426.57
	130.000	7238.95	4192.77	1441.87	1604.32	5.11	1632.88	1083.74	2446.50	1181.05	2089.18
*	198.000	3897.95	477.20	3407.34	13.41	7.70	1638.12	1433.31	1958.72	501.53	637.51

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	SECNO	Q	QLOB	QCH	QROB	VCH	CWSEL	SSTA	ENDST	TOPWID	AREA
*	200.000	3897.95	393.13	3239.81	265.01	7.40	1638.56	1392.94	2523.46	844.24	864.32
*	201.000	3897.95	.00	3897.95	.00	3.94	1642.61	1069.20	2020.77	765.95	989.95
*	202.000	4633.59	4103.30	151.59	378.69	2.18	1644.16	1049.00	2233.87	1025.48	1423.57
	203.000	7370.21	5213.37	827.51	1329.33	3.80	1647.16	1105.00	2800.40	1539.75	2017.29
*	204.000	8043.66	4166.92	1921.79	1954.94	3.72	1649.61	1000.00	2843.50	1843.50	2381.18
	205.000	8159.00	3861.64	1879.42	2417.94	5.54	1650.84	1000.00	2804.89	1742.80	1961.89
	205.200	5463.95	51.18	2446.84	2965.93	5.41	1653.83	1000.00	2103.59	1055.36	1670.16
	205.300	6338.40	.00	2606.66	3731.74	5.38	1655.34	1000.00	1860.14	832.32	1799.53

	205.400	6342.00	.00	3742.95	2599.05	7.22	1657.18	1019.07	2094.03	972.65	1587.88
*	205.500	6342.00	.00	3664.44	2677.55	9.65	1659.45	1014.74	1831.02	591.50	1039.81
*	205.600	6342.00	.00	2377.25	3964.75	6.69	1662.69	1016.02	2280.85	1091.65	1697.62
	210.000	6342.00	.00	1894.10	4447.90	5.56	1663.92	2301.76	2929.71	595.49	1174.57

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DUCK CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	100.000	.00	.00	.00	1546.20	11500.00	1554.24	.00	1555.28	44.26	8.19	1404.31	1728.63
*	102.000	1530.00	.00	.00	1556.30	11500.00	1564.66	1564.66	1566.91	99.89	12.07	975.15	1150.66
*	103.000	720.00	.00	.00	1559.20	11500.00	1569.88	.00	1571.10	36.56	9.21	1519.42	1902.00
*	104.000	510.00	.00	.00	1564.50	11500.00	1572.82	1572.70	1573.96	95.95	9.68	1389.38	1174.05
	106.000	1100.00	.00	.00	1576.70	11500.00	1581.65	.00	1582.24	61.20	6.29	1951.23	1470.01
	108.000	1100.00	.00	.00	1582.80	11500.00	1587.46	.00	1587.69	42.50	4.41	3130.55	1764.04
*	110.000	1000.00	.00	.00	1590.40	11500.00	1593.80	.00	1594.11	102.92	5.34	2663.92	1133.57
*	112.000	1050.00	.00	.00	1595.90	11500.00	1599.97	.00	1600.07	35.68	2.01	4558.28	1925.16
*	117.000	940.00	.00	.00	1608.90	11500.00	1612.12	1612.12	1612.66	32.96	5.88	1955.85	2003.02
*	118.000	60.00	.00	.00	1603.00	11500.00	1612.93	1608.14	1612.94	1.42	1.56	13877.78	9639.76
*	120.000	440.00	.00	.00	1610.00	11500.00	1613.13	.00	1613.25	41.93	3.79	4435.58	1776.02
*	122.000	570.00	.00	.00	1609.50	11500.00	1616.39	1616.10	1616.86	87.38	7.84	3011.46	1230.25
	124.000	525.00	.00	.00	1612.00	11500.00	1620.11	.00	1620.60	58.92	8.41	3353.47	1498.17
*	126.000	840.00	.00	.00	1621.70	7238.95	1625.13	.00	1625.23	57.36	3.27	2981.59	955.81
	128.000	820.00	.00	.00	1625.00	7238.95	1629.55	.00	1629.70	59.21	3.92	2426.57	940.75
	130.000	480.00	.00	.00	1627.80	7238.95	1632.88	.00	1633.09	85.20	5.11	2089.18	784.27
*	198.000	470.00	.00	.00	1632.80	3897.95	1638.12	1638.12	1638.94	147.24	7.70	637.51	321.23
*	200.000	188.00	1638.40	1635.50	1633.50	3897.95	1638.56	.00	1639.28	47.57	7.40	864.32	565.16
*	201.000	430.00	.00	.00	1638.90	3897.95	1642.61	.00	1642.86	165.37	3.94	989.95	303.11
*	202.000	165.00	.00	.00	1641.70	4633.59	1644.16	.00	1644.33	59.61	2.18	1423.57	600.17
	203.000	390.00	.00	.00	1643.00	7370.21	1647.16	.00	1647.37	93.29	3.80	2017.29	763.06
*	204.000	350.00	.00	.00	1645.90	8043.66	1649.61	.00	1649.79	54.31	3.72	2381.18	1091.47
	205.000	240.00	.00	.00	1646.80	8159.00	1650.84	.00	1651.13	76.14	5.54	1961.89	935.01
	205.200	500.00	.00	.00	1649.50	5463.95	1653.83	.00	1654.09	43.15	5.41	1670.16	831.79

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	205.300	372.00	.00	.00	1649.90	6338.40	1655.34	.00	1655.60	36.23	5.38	1799.53	1053.02
	205.400	510.00	.00	.00	1651.10	6342.00	1657.18	.00	1657.69	46.05	7.22	1587.88	934.52
*	205.500	370.00	.00	.00	1653.00	6342.00	1659.45	1659.45	1660.39	82.96	9.65	1039.81	696.29
*	205.600	490.00	.00	.00	1655.30	6342.00	1662.69	.00	1663.03	41.48	6.69	1697.62	984.71
	210.000	245.00	.00	.00	1657.90	6342.00	1663.92	.00	1664.37	66.39	5.56	1174.57	778.37

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DUCK CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	100.000	11500.00	1554.24	.00	.00	-5.76	283.19	.00
*	102.000	11500.00	1564.66	.00	10.42	.00	273.35	1530.00
*	103.000	11500.00	1569.88	.00	5.22	.00	462.79	720.00

*	104.000	11500.00	1572.82	.00	2.94	.00	575.08	510.00
	106.000	11500.00	1581.65	.00	8.83	.00	908.12	1100.00
	108.000	11500.00	1587.46	.00	5.82	.00	1129.71	1100.00
*	110.000	11500.00	1593.80	.00	6.33	.00	1362.39	1000.00
*	112.000	11500.00	1599.97	.00	6.17	.00	2288.30	1050.00
*	117.000	11500.00	1612.12	.00	12.15	.00	1689.09	940.00
*	118.000	11500.00	1612.93	.00	.81	.00	3503.76	60.00
*	120.000	11500.00	1613.13	.00	.20	.00	2536.54	440.00
*	122.000	11500.00	1616.39	.00	3.26	.00	1981.84	570.00
	124.000	11500.00	1620.11	.00	3.72	.00	2057.76	525.00
*	126.000	7238.95	1625.13	.00	5.02	.00	1888.97	840.00
	128.000	7238.95	1629.55	.00	4.42	.00	1617.32	820.00
	130.000	7238.95	1632.88	.00	3.33	.00	1181.05	480.00
*	198.000	3897.95	1638.12	.00	5.24	.00	501.53	470.00
*	200.000	3897.95	1638.56	.00	.44	-.04	844.24	188.00
*	201.000	3897.95	1642.61	.00	4.05	.05	765.95	430.00
*	202.000	4633.59	1644.16	.00	1.54	.00	1025.48	165.00
	203.000	7370.21	1647.16	.00	3.00	.00	1539.75	390.00
*	204.000	8043.66	1649.61	.00	2.45	.00	1843.50	350.00
	205.000	8159.00	1650.84	.00	1.23	.00	1742.80	240.00
	205.200	5463.95	1653.83	.00	2.99	.00	1055.36	500.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	205.300	6338.40	1655.34	.00	1.51	.00	832.32	372.00
	205.400	6342.00	1657.18	.00	1.84	.00	972.65	510.00
*	205.500	6342.00	1659.45	.00	2.28	.00	591.50	370.00
*	205.600	6342.00	1662.69	.00	3.24	.00	1091.65	490.00
	210.000	6342.00	1663.92	.00	1.23	.00	595.49	245.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 102.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 102.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

WARNING SECNO= 103.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 104.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 110.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 112.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 117.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 117.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 117.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO= 118.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 120.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 122.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 126.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 198.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 198.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

WARNING SECNO= 200.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 201.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 202.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 204.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO=    205.500  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    205.500  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    205.600  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

RANGE WASH

2Ba8a CID32003 001

Study Contractor: Nolte & Associates, Inc.

PROFILE AND MAPPING CONCURRENCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Range Wash Mapping Concurrence		Pg. 2 -- end

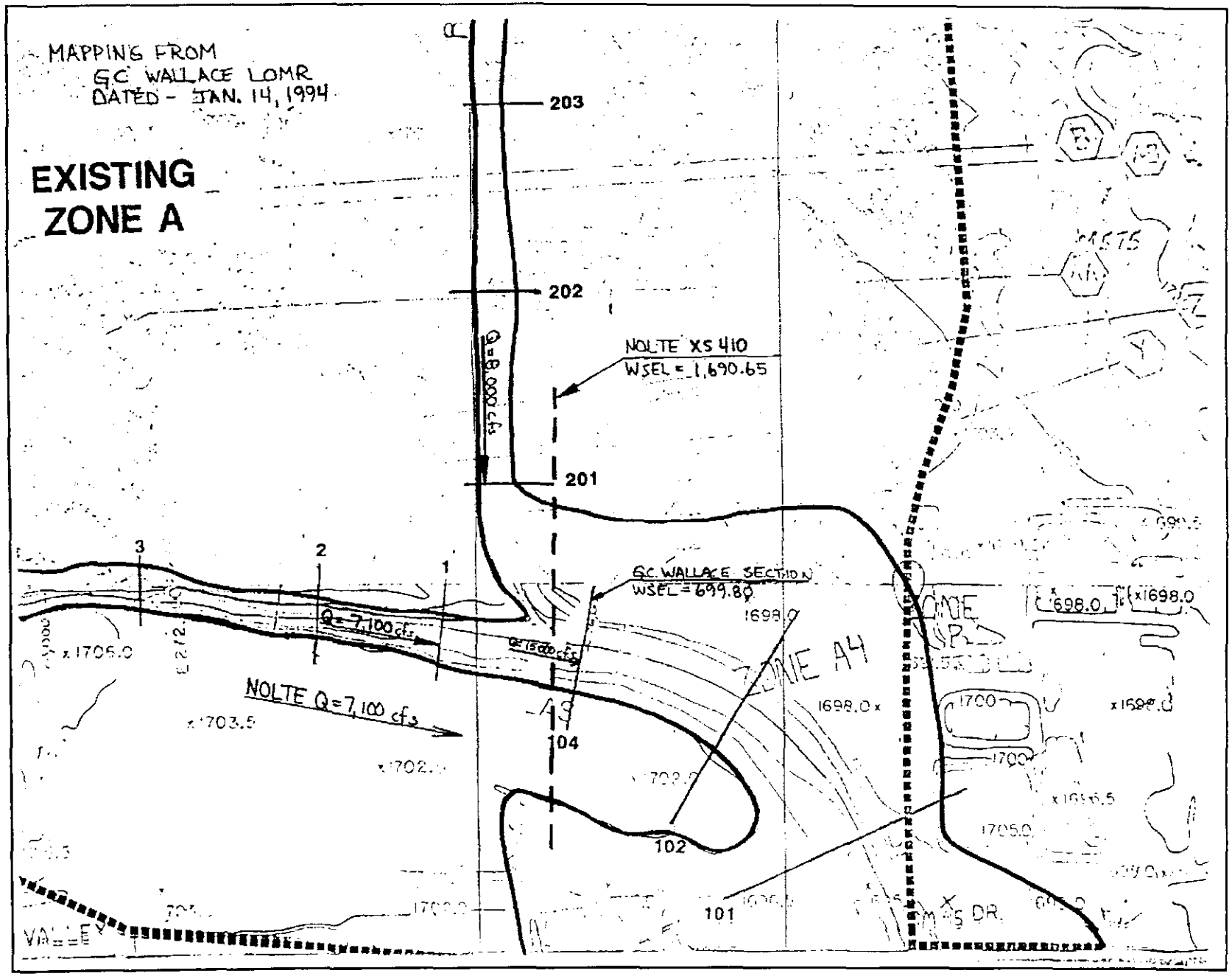
Range Wash

Location	(a) Nolte	(b) G.C. Wallace	(a)-(b) Delta
d/s of confluence with Range	xs410 wsel=1690.65 Q = 7,100 cfs	xs104 wsel=699.80 Q = 15,000 cfs	-9.15'

Nolte model: LV.DAT
G.C. Wallace model: See data from Baker, LOMR by G.C. Wallace

(a) The Nolte study is based on the James M. Montgomery Las Vegas Valley Flood Insurance Study Hydrology Report dated Sept. 1991. The JMM report used a flow of 7,100 cfs downstream of Flamingo Wash.

(b) G.C. Wallace model (9-16-93) combines the flow from Range Wash (8,000cfs) and flow from Las Vegas Wash (7,100cfs) for a combined flow of 15,000cfs.


MAPPING FROM
GC WALLACE LOMR
DATED - JAN. 14, 1994
EXISTING
ZONE A
203
202
201
104
102
101
NOLTE XS 410
WSEL = 1,690.65
Q = 8,000 cfs
GC WALLACE SECTION
WSEL = 699.80
Q = 7,100 cfs
Q = 15,000 cfs
NOLTE Q = 7,100 cfs
ZONE AH
ZONE AO
1698.0
1700
1705.0
1703.5
DR.

5B CID32003 001

Study Contractor: Nolte & Associates, Inc.

EFFECTIVE FIRMS & FIS

Clark County, Nevada

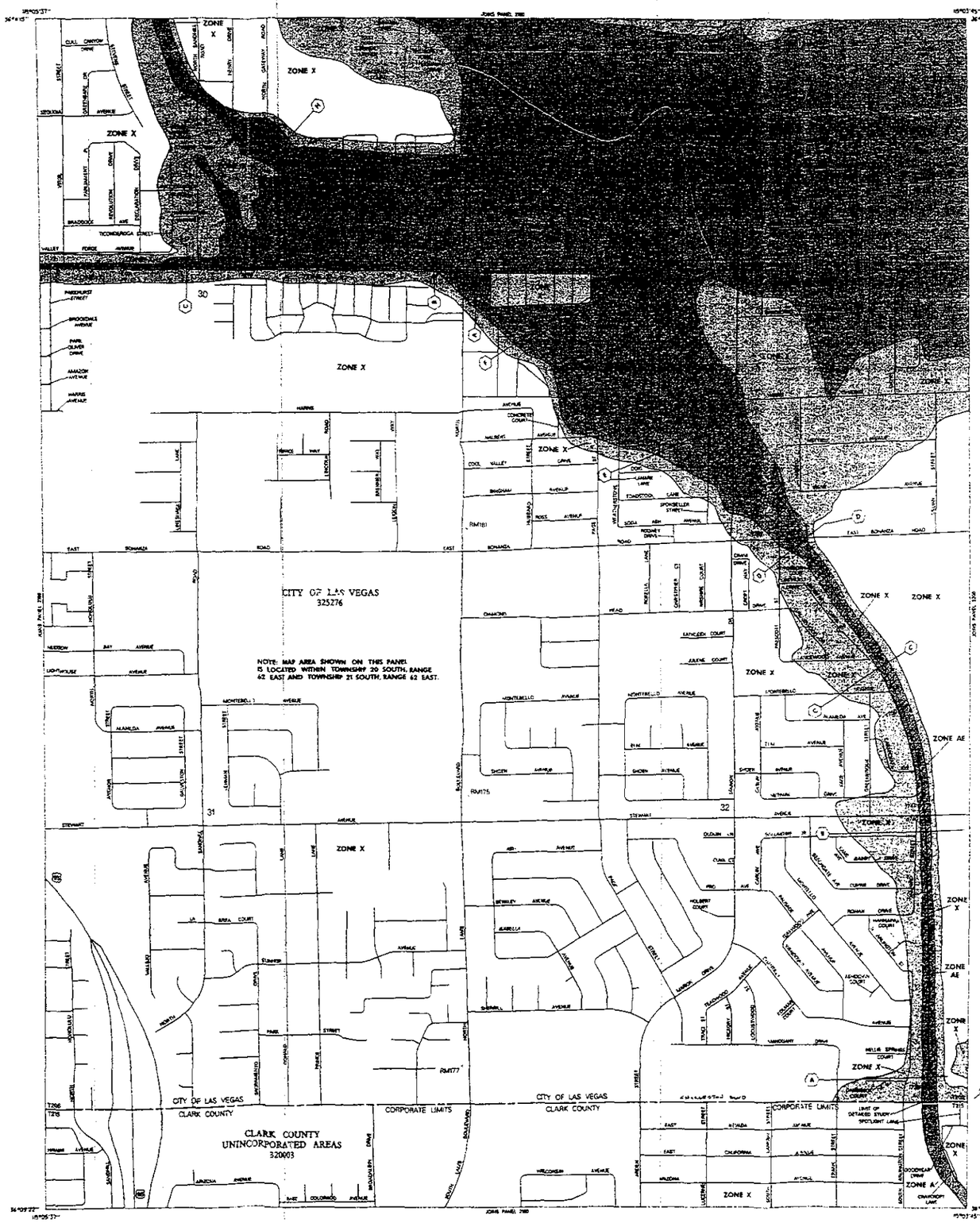
(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Effective FIRM Panels	5B CID32003	002
Las Vegas Wash	Clark County FIS, Flood Profile Sheet 20P	5B CID32003	003

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
RM174	1761.49	Township bench mark at the north edge of Lamb Boulevard, at the Three Corners Realty Manor. Established by Clark County Regional Planning Council.
RM175	1760.21	Intersection of East Stewart Avenue and Lamb Boulevard. At the intersection of East Stewart Avenue, and Lamb Boulevard. Established by Clark County Regional Planning Council.
RM177	1752.46	Northwest corner of intersection of Lamb and East Charleston Boulevard. Established by Clark County Regional Planning Council.
RM178	1792.81	Spike in curb at intersection of Bellagio, Havana, and Walnut Street. Established by Clark County Regional Planning Council.
RM179	1721.67	Spike located in Marion Drive, approximately 600 feet north of Meadowlark Avenue. Established by Clark County Regional Planning Council.
RM181	1772.05	Tailhead spike at the centerline of Lamb Boulevard and centerline of Shannon Road. Established by Clark County Regional Planning Council.



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- ZONE A — No base flood elevations determined.
- ZONE AE — Base flood elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AH — To be mapped from 100-year flood to natural flood protection against natural obstructions in the flood boundary determined.
- ZONE V — Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE — Coastal flood zone with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- ZONE X — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- ZONE X — Areas determined to be outside 500-year floodplain.
- ZONE D — Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Coastal flood zone and nomenclature within or proximate to Special Flood Hazard Areas.

- Flood Boundary
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Areas, and Boundary Dividing Areas of Differing Special Flood Hazard Risks Within Special Flood Hazard Areas
- 513 — Base Flood Elevation Line; Elevation in Feet; Base Level Shown on Coastal Zones
- (D) — Limit of Study
- (1) 1871 — Base Flood Elevation in Feet Where Uniform Within Zone. See Map Index for Elevation Determinations
- RM7 — Flood Control Benchmark
- 97°07'30", 32°22'30" — Geographic Coordinates Based on North American Datum of 1927 (NAD 27)

NOTES

This Map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Coastal base flood elevations shown on this map apply only landward of 0.0 NGVD and inland of the effective or approximate shoreline. Users should be aware that coastal flood elevations also may be provided in the Flood Insurance Study report for this jurisdiction; refer to it before developing.

Areas in Special Flood Hazard Zones A, AO, AH, AE, A99, V, and VE.

Certain areas not in Special Flood Hazard Zones may be protected by flood control structures.

Boundaries of the Floodways were computed at cross sections, and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Refer to the Flood Insurance Study report for this jurisdiction.

Elevations at which surface water is expected to be contained by levees conform to the requirements of 44 CFR 65.10.

For communities that maintain historic gages, to predetermine elevations see Section 6.0 of the Flood Insurance Study Report.

For shallow flooding (base depths) and base flood depths see elevations shown on this Map.

MAP REPOSITORY
Refer to Repository Listing on Map Index

EFFECTIVE DATE OF
COUNTYWIDE FLOOD INSURANCE RATE MAP
AUGUST 16, 1988

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE DATE shown on this Map to determine when updated data apply or developments in flood prone conditions, or policies may affect applicability.

To determine if flood insurance is available contact an insurance agent or call the National Flood Insurance Program at 800-638-6620.

APPROXIMATE SCALE IN FEET
500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLARK COUNTY, NEVADA AND INCORPORATED AREAS

PANEL 2187 OF 4000

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY, UNINCORPORATED AREAS	320003	2187	D
LAS VEGAS, CITY OF	320276	2187	D

MAP NUMBER
32003C2187 D

EFFECTIVE DATE:
AUGUST 16, 1988

Federal Emergency Management Agency

ELEVATION REFERENCE MARKS

STATION ELEVATION MARK (FEET NGVD)	DESCRIPTION OF LOCATION
RM17A 1749.19	Bolt/rod visible at the intersection of East Sycamore Avenue and Nellis Boulevard. Established by Clark County Regional Planning Council.

THIS AREA IS SHOWN ON MAP NUMBER 32003C2176

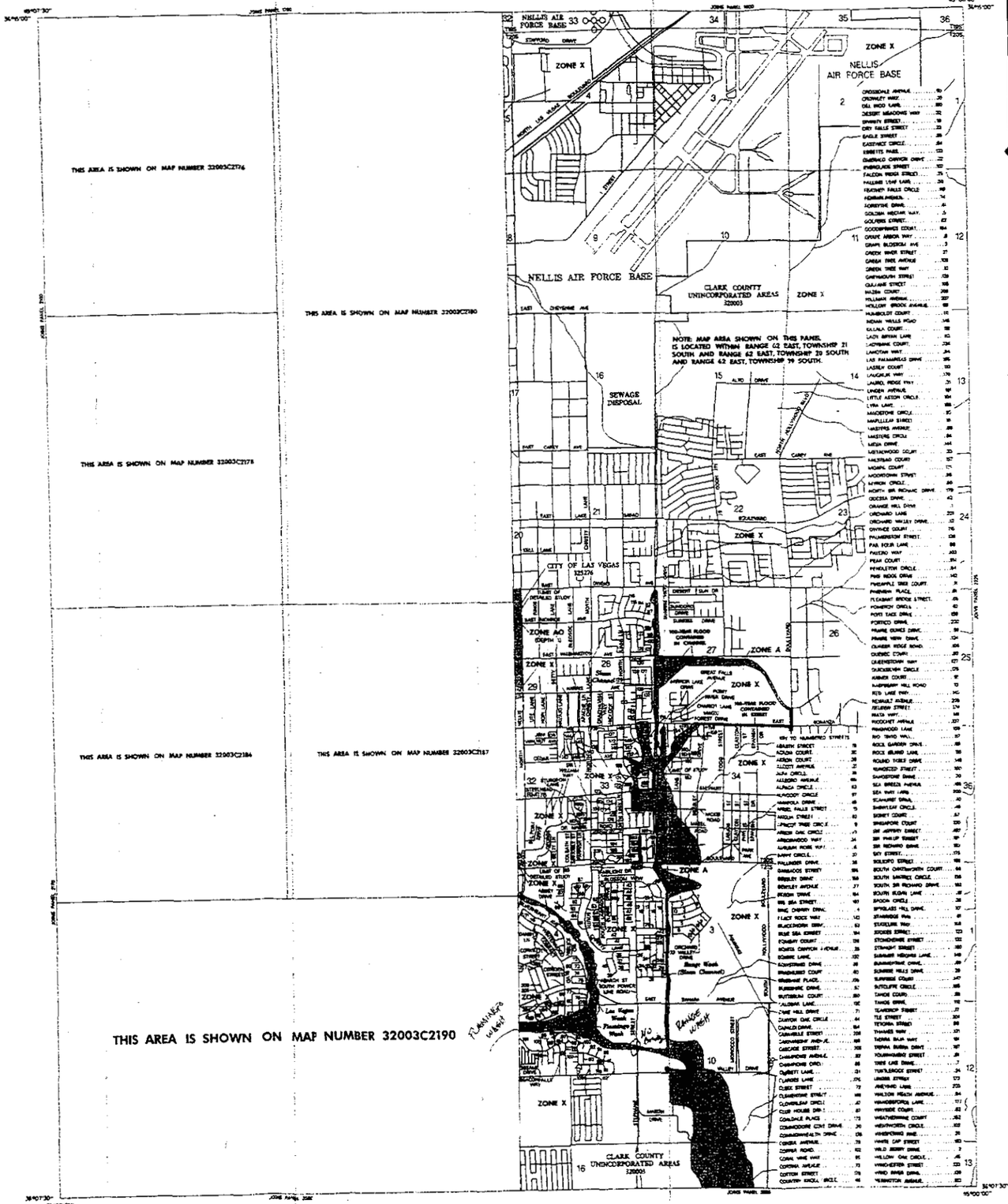
THIS AREA IS SHOWN ON MAP NUMBER 32003C2180

THIS AREA IS SHOWN ON MAP NUMBER 32003C2178

THIS AREA IS SHOWN ON MAP NUMBER 32003C2184

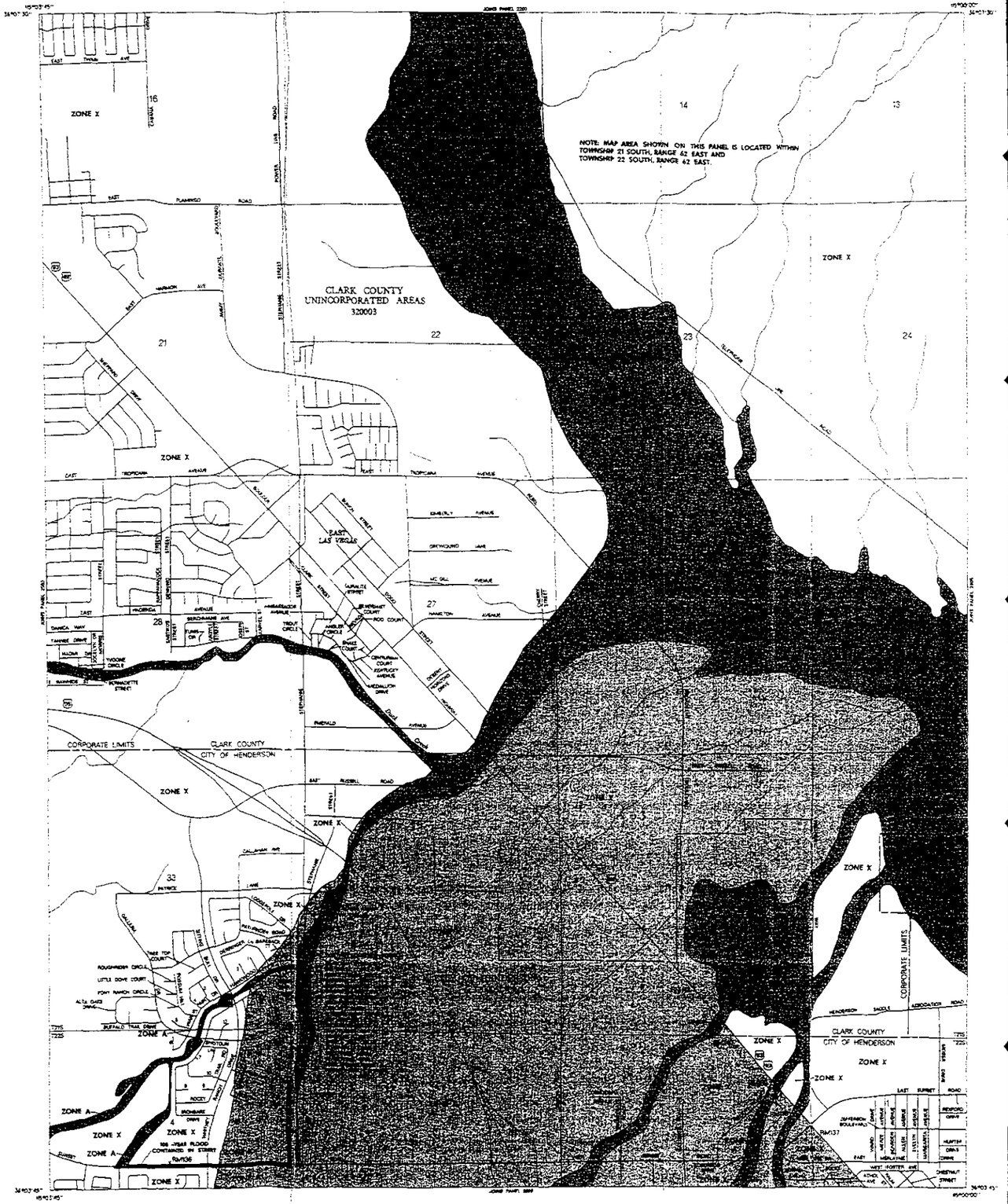
THIS AREA IS SHOWN ON MAP NUMBER 32003C2187

THIS AREA IS SHOWN ON MAP NUMBER 32003C2190


NELLIS AIR FORCE BASE
ZONE X
NELLIS AIR FORCE BASE
CLARK COUNTY UNINCORPORATED AREAS 320005
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN RANGE 62 EAST, TOWNSHIP 21 SOUTH AND RANGE 62 EAST, TOWNSHIP 20 SOUTH AND RANGE 62 EAST, TOWNSHIP 19 SOUTH.
SEWAGE DISPOSAL
CITY OF LAS VEGAS 325216
ZONE AO
ZONE A
ZONE X-A
CLARK COUNTY UNINCORPORATED AREAS 320005
ZONE X
ZONE X
ZONE X

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
RM136	1755.63	Fire bar located approximately 3,140 feet southerly of Tropicana Avenue, approximately 40 feet westerly of the centerline of Boulder Highway, and 10 feet northeasterly of a U.S. Soil Conservation Service witness post.
RM137	1657.91	Spike and tin located approximately 250 feet southeast of the intersection of Sunset Road and Boulder Highway, on the top of a 24-inch cottonwood tree. Established by U.S. Soil Conservation Service.
RM138	1686.38	Spike and tin located on Boulder Highway approximately 175 feet south of its junction with Carnegie Drive. Established by U.S. Soil Conservation Service.
RM139	1653.59	Spike and tin located on Boulder Highway at approximate intersection with Gilbert Road. Established by U.S. Soil Conservation Service.
RM140	1643.77	Spike and tin located on Boulder Highway at approximate intersection with Eastwood Drive. Established by U.S. Soil Conservation Service.
RM141	1648.68	Spike and tin located on Boulder Highway approximately 150 feet northeast of Carnegie Drive. Established by U.S. Soil Conservation Service.
RM142	1649.43	Spike and tin located on Boulder Highway approximately 450 feet south of Carnegie Drive. Established by U.S. Soil Conservation Service.
RM143	1780.89	Fire bar located approximately 160 feet southeasterly of the centerline of Boulder Road, and approximately 300 feet southerly of the centerline of Tropicana Avenue. Established by U.S. Soil Conservation Service.



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A — No base flood elevations determined.

ZONE AE — Base flood elevations determined.

ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE A99 — To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.

ZONE V — Coastal flood with velocity hazard (wave action); no base flood elevations determined.

ZONE VE — Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X — Areas determined to be outside 500-year floodplain.

ZONE D — Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Coastal barrier areas are subject to special limitations on federal flood insurance.

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Separating Zones of Different Constant Base Flood Elevations, Special Flood Hazard Zones

Base Flood Elevation Line; Elevation in Feet. Base flood refers to the National Datum

Cross Section Line

Base Flood Elevation in Feet. Where uniform within zone, elevation may be shown

Elevation Reference Mark

River Mile

Horizontal Datum: NAD 83, Nevada Coordinate System, East Zone. Projection: Transverse Mercator

1000-meter Universal Transverse Mercator grid ticks, zone 11

5000-foot ticks: Nevada Coordinate System, East Zone

Bench Mark

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Coastal base flood elevations shown were determined using the VDATUM program developed by the National Oceanic and Atmospheric Administration (NOAA). For more information on the methodology used to develop these elevations, contact the Federal Insurance and Mitigation Administration (FIMA).

Areas of Special Flood Hazard include Zones A, AE, AH, AO, A99, V, and VE.

Coastal areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program.

Floodway widths in some areas may be too narrow to show to scale. Refer to the Flood Insurance Study Report.

The base flood elevations shown on this map apply only landward of Mean Lower Low Water (MLLW). Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the Flood Insurance Study Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal flood elevations are based on a 1.0 foot wave height. Areas of coastal flooding may be subject to wave heights greater than 1.0 foot during larger storms.

For information on flood insurance zones in your community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.

MAP REPOSITORY
Refer to Repository Listing on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
AUGUST 18, 1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For the purchase of flood insurance, the FLOOD INSURANCE RATE MAP EFFECTIVE DATE" shown on this map is the date the community first published flood insurance rates or a revised flood insurance rate map for the community. Please call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLARK COUNTY, NEVADA AND INCORPORATED AREAS

PANEL 2585 OF 4990

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY, UNINCORPORATED AREAS	320003	2585	B
CITY OF HENDERSON	320035	2585	B

MAP NUMBER
32003C2585 B

EFFECTIVE DATE:
AUGUST 18, 1995

Federal Emergency Management Agency

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NAVD)	DESCRIPTION OF LOCATION
RM166	1875.98	Two inch x two inch with welt located approximately 136 feet north of edge of Athens Avenue and 160 feet west of edge of Oshawa Street extended. Established by U.S. Soil Conservation Service.
RM168	1813.35	rr= bar located approximately 60 feet west of the west edge of Lichen Street, and 980 feet north of the edge of Cecil Avenue; established by U.S. Soil Conservation Service.

JOINS PANEL 2086

JOINS PANEL 2080

JOINS PANEL 2090

CITY OF HENDERSON
320005

CLARK COUNTY
UNINCORPORATED AREAS
320003

CORPORATE LIMITS

CLARK COUNTY
CITY OF HENDERSON

ZONE X

ZONE A

RM166

RM168

TELEPHONE

WATER

SEWER

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A — No base flood elevations determined.

ZONE AE — Base flood elevations determined.

ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE A99 — To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.

ZONE V — Coastal flood with velocity hazard (wave action); no base flood elevations determined.

ZONE VE — Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X — Areas determined to be outside 500-year floodplain

ZONE D — Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Coastal barrier areas are especially hazardous areas of undeveloped, as Special Flood Hazard Areas

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones and Boundary Dividing Areas of Different Special Flood Hazard Zones

513 — Base Flood Elevation Line; Elevation in Feet. See Map Index for Elevation Datum.

(EL 987) — Cross Section Line

Base Flood Elevation in Feet where Uniform within Zone. See Map Index for Elevation Datum.

RM7X — Reference Marks

Horizontal Control Map based on North American Datum of 1927 (NAD 27).

97°07'30", 32°22'30"

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all areas subject to flooding in Special Flood Hazard Areas.

Coastal base flood elevations apply only landward of 0.0 (NGVD) and include the effects of wave runup; base elevations may vary due to differences in local shore conditions for the National Insurance Exercise for locations landward of breaking.

Areas of Special Flood Hazard (100-year flood) include Zones A, AE, AH, AO, AR, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross-sections and interpolated between cross-sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in other areas may be less narrow or absent. Floodway widths are presented in the Flood Insurance Study Report.

This map uses monumentation stations (disturbility of Control Survey Research, Network Units, and the Oceanside Positioning System, established under the Coastal Zones Environment Act of 1982 (PL 97-348).

Elevations during storms are subject to all the rules of this map. This map depicts surface elevations exclusively; effects to foundations if protective walls have damaged subsequent to the formation of this map.

For corresponding flood hazards below, refer to corresponding drainage are Section 4.0 of the Flood Insurance Study Report.

For adjoining area panels, and data were source has consistently defined after them.

MAP REPOSITORY
Refer to Repository Listing on Map Index

EFFECTIVE DATE OF
COUNTYWIDE FLOOD INSURANCE RATE MAP
AUGUST 16,1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE DATE shown on this map to determine when updated flood data to information in flood control structures, or possibly more flood modifications.

For information if flood insurance is available, consult an insurance agent or call the National Flood Insurance Program, at 1-800-638-6620.

APPROXIMATE SCALE IN FEET
1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLARK COUNTY,
NEVADA AND
INCORPORATED AREAS

PANEL 2085 OF 4000

SEE MAP INDEX FOR PANELS NOT PRINTED

COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY, UNINCORPORATED AREAS	320003	2085	D
HENDERSON, CITY OF	320005	2085	D

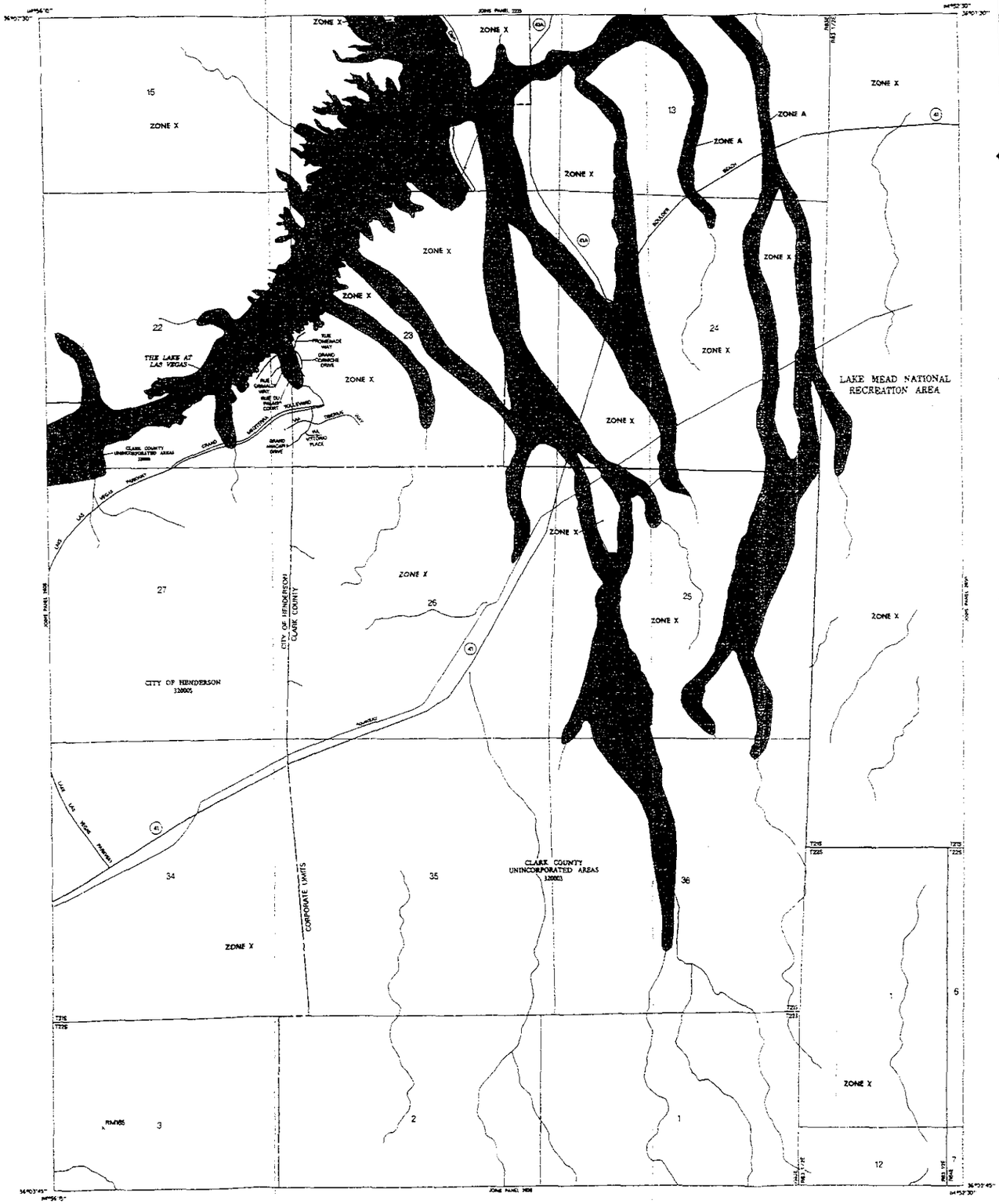
MAP NUMBER
32003C2085 D

EFFECTIVE DATE:
AUGUST 16,1995

Federal Emergency Management Agency

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
BM165	1545.40 (?)	Bolt with hex. Located approximately 1,600 feet east of Boulder Highway and 100 feet north of Dahlia Avenue extended. Cutout/bend by U.S. Soil Conservation Service.



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A — No base flood elevations determined.

ZONE AE — Base flood elevations determined.

ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AH — To be supplanted Area 100-year flood by federal flood protection system under construction; no base flood elevations determined.

ZONE V — Coastal flood with velocity hazard (wave action); no base flood elevations determined.

ZONE VE — Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X — Areas determined to be outside 500-year floodplain.

ZONE D — Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

(identified 1990) (identified 1990) (Otherwise Protected Areas)

Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.

Floodway Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Special Flood Hazard Zones and Boundary Dividing Special Flood Hazard Zones

513 — Base Flood Elevation Line; Elevation in Feet. (EL 987) — Not to Elevation Datum.

Cross Section Line

RM7 — Base Flood Elevation in Feet. Where Uniform within Zone, See Flood Profile for Base Flood Elevation Reference Point.

M2 — Base Mile.

97°07'30", 32°22'30" — Geographic Coordinate Based on North American Datum of 1927 (NAD 27) Projection

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Coastal base flood elevations shown were determined at 0.5 NGVD and reflect the effects of wave action. These elevations may also differ from those shown elsewhere on this National Flood Insurance Program map.

Areas of Special Flood Hazard (100-year flood) include Zones A, AE, AH, AO, AR, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were determined at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. See Floodway Data table in the Flood Insurance Study report for this jurisdiction.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

This map was compiled from aerial photographs at Control Based Resource Section maps and the Orthophoto Procedure. Photo established under the Coastal Survey Improvement Act of 1988 (PL 100-4859).

Corporate limits shown are current as of the date of this map. The user should confirm corporate limits with the governing jurisdiction.

For communities with regulatory floodway, refer to Floodway Data table in the Flood Insurance Study report for this jurisdiction.

For adjoining map panels and base map indexes, see appropriate printed map index.

MAP REPOSITORY
Refer to Repository Listing on Index Page

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP:
AUGUST 18, 1995

EFFECTIVE DATES OF REVISIONS TO THIS PANEL:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE DATE statement given in the Publication Letter associated with this map for identification of panels where revisions to panels have been incorporated.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLARK COUNTY, NEVADA AND INCORPORATED AREAS

PANEL 2578 OF 4830
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY UNINCORPORATED AREAS	320001	2578	B
HENDERSON, CITY OF	320005	2578	B

MAP NUMBER
32003C2578 B

EFFECTIVE DATE:
AUGUST 18, 1995

Federal Emergency Management Agency

FLAMINGO WASH

Study Contractor: Nolte & Associates, Inc.

PROFILE AND MAPPING CONCURRENCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Flamingo Wash Mapping Concurrence		Pg. 2
Flamingo Wash	HEC-2 model output	Base3-4.out	Pg. 3-end
Flamingo Wash	HEC-2 model input	Base3-4.dat	

Flamingo Wash

Location	(a) Nolte	(b) G.C. Wallace	(a)-(b) Delta
XS 426	1710.14		
XS428	1711.83		
XS10		1708.7	
XS20	interpolated 1711	1710.73	+0.27'

Nolte model: LV.DAT
G.C. Wallace model: BASE3-4.DAT, HEC-2 model not dated

(a) The Nolte study is based on the James M. Montgomery Las Vegas Valley Flood Insurance Study Hydrology Report dated Sept. 1991. The JMM report used a flow of 7,100 cfs downstream of Flamingo Wash.

(b) The G.C. Wallace model uses slope-area method (0.004) with an estimated water surface elevation of 1705.0 feet. The Flamingo Wash model should start at the water surface elevation of 1710.14 (Nolte XS426).

```
1*****************************************
  HEC-2 WATER SURFACE PROFILES            *
                                          *
  Version  4.6.0;  February 1991          *
                                          *
* RUN DATE   16DEC98    TIME   14:05:16   *
*****************************************
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**********************************
*  U.S. ARMY CORPS OF ENGINEERS  *
*  HYDROLOGIC ENGINEERING CENTER *
*  609 SECOND STREET, SUITE D    *
*  DAVIS, CALIFORNIA 95616-4687  *
*       (916) 756-1104           *
**********************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X           X     X
X     X  X        X                       X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                 X
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X     X  XXXXXXX   XXXXX            XXXXXXX
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16DEC98 14:05:16 PAGE 1

THIS RUN EXECUTED 16DEC98 14:05:16

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**********************************
HEC-2 WATER SURFACE PROFILES
Version  4.6.0;  February 1991
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T1      550.032
T2      FLAMINGO WASH FIS RESTUDY
T3      FLOODPLAIN DELINEATION
T4      FILES: BASE3-4.DWG, BASE3-4.D1
T4      STARTING WSE = NORMAL DEPTH
T4      SUBCRITICAL RUN
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		2			0.004			6400	1705	
	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1		-1				-2	-6		

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	100			150							
NC	0.03	0.03	0.03	0.1	0.3						
X1	10	18	1000	1126.64							
GR	1710	1000	1710.07	1002.71	1710	1003.06	1708	1012.39	1706	1021.7	
GR	1704	1031.01	1702	1040.32	1701.54	1042.48	1700.33	1049.9	1700.55	1089.4	
GR	1702	1095.84	1704	1104.89	1706	1114.24	1708	1123.66	1708.6	1126.64	
GR	1710	1152.79	1710.41	1160.64	1712	1288.04					
NC	0.03	0.03	0.03								
X1	20	17	1182.02	1322.04	483.22	497.54	488.53				
GR	1712	1000	1711.97	1182.02	1710	1190.86	1708	1199.75	1706	1208.56	
GR	1704	1217.31	1703.12	1221.12	1703.59	1267.53	1704	1269.51	1706	1279.06	
GR	1708	1288.6	1710	1298.12	1711.95	1307.42	1712	1307.8	1713.45	1322.04	
GR	1712.7	1343.21	1713.7	1500.75							
NC	0.03	0.03	0.03								
X1	30	16	1053.23	1154.72	494.86	503.84	498.03				
GR	1714.3	1000	1714	1012.26	1712.41	1053.23	1712	1055.19	1710	1064.74	
GR	1708	1074.25	1706	1083.68	1705.86	1084.33	1705.85	1124.71	1706	1125.31	
GR	1708	1133.14	1710	1140.87	1712	1148.55	1713.61	1154.72	1714	1175.89	
GR	1715.8	1316.21									
NC	0.03	0.03	0.03								
X1	40	20	1146.2	1238.76	500.14	481.13	491.57				
GR	1718	1000	1717.12	1101.53	1716	1146.2	1715.85	1152.03	1714	1159.77	
GR	1712	1168.18	1710	1176.59	1708	1185.01	1707.75	1186.07	1707.38	1196.73	
GR	1707.2	1216.01	1708	1218.57	1710	1225.27	1712	1231.97	1714	1238.76	
GR	1714.1	1239.39	1716	1283.03	1716.17	1284.32	1716.77	1316.26	1718	1327.96	

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NC	0.03	0.03	0.03							
X1	50	21	1066.67	1235.55	334.29	277.63	305.6			
GR	1723	1000	1722	1020.92	1721.42	1037.11	1720.56	1066.67	1720	1068.75
GR	1718	1076.4	1716	1084.26	1714	1092.32	1712	1100.45	1710	1108.62
GR	1708.9	1112.98	1709	1152.91	1710	1158.04	1712	1168.25	1714	1178.41
GR	1714.6	1181.82	1716	1195.46	1717.14	1207.5	1718	1214.02	1720	1235.55
GR	1720	1249.78								
NC	0.03	0.03	0.03							
X1	60	31	1120.14	1223.41	499.62	502.1	499.27			
GR	1720	1000	1718.36	1013.98	1718	1035.26	1717.58	1105.92	1718	1119.77
GR	1718	1120.01	1718.01	1120.14	1716	1128.57	1714	1136.9	1712	1145.29
GR	1710.1	1153.14	1710	1183.08	1709.94	1194.72	1710	1194.99	1712	1203.55
GR	1714	1212.13	1716	1220.71	1716.63	1223.41	1717.35	1277.47	1718.05	1286.74

GR	1718	1287.48	1718	1296.95	1717.48	1310.09	1718	1314.87	1718.69	1321.04
GR	1718	1336.07	1717.62	1343.02	1718	1362.12	1718.73	1381.28	1718.4	1394.59
	1720	1400.91								
NC	0.03	0.03	0.03							
X1	70	17	1084.1	1197.56	493.27	498.08	497.95			
GR	1723.3	1000	1723.69	1084.1	1722	1090.63	1720	1098.35	1718	1106.05
GR	1716	1113.75	1714	1121.45	1712	1129.17	1712	1129.24	1712	1129.36
GR	1712.6	1169.17	1714	1174.59	1716	1182.8	1718	1191.03	1719.59	1197.56
GR	1720	1230.27	1720.07	1233.61						
NC	0.03	0.03	0.03							
X1	80	18	1147.29	1269.91	455.76	481.96	470.68			
GR	1726	1000	1725.4	1007.66	1724.07	1115.85	1724	1116.84	1723.19	1147.29
GR	1722	1152.02	1720	1159.92	1718	1167.78	1716	1175.62	1714.38	1181.94
GR	1714.9	1227.68	1716	1232.07	1718	1240.31	1720	1248.54	1722	1256.76
GR	1724	1264.99	1725.21	1269.91	1724.85	1287.78				
NC	0.03	0.03	0.03							
X1	90	20	1056.45	1168.18	495.14	465.14	482.19			
GR	1726	1000	1725.75	1009.38	1724.96	1031.29	1724.64	1056.45	1724	1058.67
GR	1722	1065.64	1720	1072.62	1718	1079.6	1716	1086.6	1715.19	1089.42
GR	1716	1103.03	1717.15	1124.51	1718	1128.2	1720	1136.83	1722	1145.32
GR	1724	1153.73	1726	1162.18	1727.42	1168.18	1728	1186.62	1728.02	1187.5
NC	0.03	0.03	0.03							
X1	100	25	1022.27	1132.68	289.86	299.75	295.13			
GR	1732	1000	1732	1001	1732.08	1001.22	1730	1011.88	1728	1022.27
GR	1727.6	1024.44	1726	1027.45	1724	1031.2	1722	1034.85	1720	1038.4
GR	1718.7	1040.93	1719.04	1047.62	1718.99	1102.02	1719.04	1118.34	1720	1119.65
GR	1722	1123	1724	1126.5	1726	1130.15	1727.26	1132.68	1727.45	1139.16
GR	1728	1142.93	1728.68	1147.57	1730	1157.98	1730.09	1158.86	1730	1162.48
NC	0.03	0.03	0.015							
X1	110	21	1022.67	1137.41	25.99	26.18	25.69			
GR	1732.5	1000	1732	1002.64	1730	1012.69	1728	1022.67	1727.56	1024.87
GR	1726	1027.45	1724	1030.85	1722	1034.42	1720.5	1036.37	1720.5	1099.9
GR	1720.5	1122.88	1720.5	1123.19	1720.5	1123.29	1722	1126.96	1724	1130.74
GR	1726	1134.53	1727.52	1137.41	1728	1142.14	1729.05	1148.68	1730	1154.29

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GR	1731.7	1164.66								
	0.03	0.03	0.015							
	120	7	1029.49	1136.49	88.77	93.13	90.11			
	10			1029.49	1730	1136.49	1730			
GR	1730.3	1000	1730	1006.09	1728	1029.49	1721.9	1029.49	1721.9	1136.49
GR	1728	1136.49	1728	1146.34						
NC	0.02	0.02	0.015							
SB	0.9	1.56	2.6	145	107	7	500	0	1722.53	1721.9
X1	130	8	1035.81	1142.81	120.77	117.86	119.69			
X2			1	1727.53	1731.43			1.33		
X3	10			1035.81	1731	1142.81	1731			
GR	1728.6	1000	1728.71	1018.83	1728	1035.81	1722.53	1035.81	1722.53	1142.81
GR	1728	1142.81	1728.87	1157.29	1728.69	1174.35				
NC	0.02	0.02	0.015							
X1	140	13	1149.72	1265.63	64.74	64.09	64.14			
X3	10			1149.72	1730	1265.63	1730			
GR	1729.5	1000	1728.41	1149.72	1728	1150.76	1726	1155.81	1724	1161.07
GR	1722.8	1165.81	1722.6	1250.59	1724	1254.37	1726	1259.66	1728	1264.74
GR	1728.3	1265.63	1728.8	1316.23	1728.18	1343.83				
NC	0.02	0.02	0.02							
QT	1	6300								
X1	150	18	1018.39	1152.46	491.39	488.88	489.94			
GR	1732	1000	1731.69	1018.39	1730	1024.12	1728	1030.88	1726.48	1035.9
GR	1726.1	1066.83	1726	1067.43	1724.2	1074.87	1724	1083.96	1723.53	1107.26
GR	1724	1108.86	1725.23	1113.02	1726	1135.88	1725.99	1136.31	1728	1142.71
GR	1730	1149.03	1731.09	1152.46	1731.43	1169.72				
NC	0.02	0.02	0.02							
X1	160	22	1042.38	1195.86	501.43	502.7	501.51			
GR	1734	1000	1734.52	1002.52	1734	1015.73	1733.26	1042.38	1732	1045.87
GR	1730	1051.46	1728	1057.16	1727.61	1058.29	1727.59	1089.49	1726.47	1097.9
GR	1726	1115.47	1725.61	1127.39	1726	1131.14	1727.46	1145.07	1728	1162.54
GR	1728.2	1169.98	1730	1173.77	1732	1178.13	1733.38	1181.15	1734	1195.86
GR	1734.2	1200.57	1735.81	1203.67						
NC	0.02	0.02	0.02							
X1	170	20	1042.95	1183.42	486.67	487.82	487.26			
GR	1734.6	1000	1735.53	1003.78	1734.5	1042.95	1734	1044.42	1732	1050.31
GR	1730	1056.26	1728.7	1060.18	1728.42	1095.07	1728	1097.52	1727.66	1099.65
GR	1727.3	1123.92	1728	1128.46	1729.82	1140.57	1730	1146.01	1730.66	1167.12
GR	1732	1172.19	1734	1179.55	1735.09	1183.42	1735.4	1201.5	1736	1203.33
	0.02	0.02	0.02							
	180	19	1037.9	1178.31	490.6	492.37	491.83			
R	1738.4	1000	1738	1017.86	1736.58	1037.9	1736	1039.45	1734	1044.91
GR	1732	1050.47	1730.22	1055.47	1730.42	1062.62	1730	1097.25	1729.6	1099.77
GR	1730	1119.42	1730.04	1121.41	1731.15	1155.75	1732	1158.51	1734	1165.22
GR	1736	1172.22	1737.72	1178.31	1738	1187.42	1738.27	1197.86		

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NC	0.02	0.02	0.02

X1	190	22	1000	1121.49	499.18	497.1	497.74			
GR	1743.5	950.33	1742.46	998.69	1742	1000	1740	1005.6	1738	1011
	1736	1016.29	1735.23	1018.97	1734.5	1040.24	1734	1042.17	1732.79	1046.61
	1732.9	1078.44	1734	1082	1734.71	1084.43	1736	1101.82	1736.3	1105.68
GR	1738	1110.9	1740	1116.85	1741.63	1121.49	1742	1135.5	1742.24	1142.58
GR	1742	1143.57	1741.64	1144.92						
NC	0.02	0.02	0.02							
X1	200	22	1000	1122.87	494.16	496.56	495.37			
GR	1748.8	956.38	1748	992.25	1747.84	995.39	1746	1000	1744	1004.98
GR	1742	1009.94	1740	1014.87	1738	1019.77	1737.9	1020.02	1737.52	1027.73
GR	1736.7	1037.66	1736.7	1061.55	1737.76	1074.9	1738	1083.37	1738.49	1103
GR	1740	1106.13	1742	1110.31	1744	1114.5	1746	1118.68	1748	1122.87
GR	1748.4	1123.7	1748.36	1144.3						
NC	0.02	0.02	0.02							
X1	210	25	1000	1113.22	499.74	500.05	500.38			
GR	1752	951.7	1752	1000	1750	1005.42	1748	1010.97	1746	1016.52
GR	1744	1022.03	1742	1027.65	1741.66	1028.59	1740.5	1037.62	1740	1039.36
GR	1738	1047.1	1737.52	1048.91	1737.8	1061.69	1738	1062.13	1740	1067.4
GR	1741.2	1071.1	1742	1079.44	1742.89	1088.66	1744	1091.26	1746	1095.98
GR	1748	1100.7	1750	1105.41	1752	1110.13	1753.31	1113.22	1753.21	1141.88
NC	0.02	0.02	0.02							
X1	220	26	1041.51	1160.79	464.69	489.34	476.72			
GR	1759.7	1000	1759.83	1041.51	1758	1045.1	1756	1049.03	1754	1052.95
GR	1752	1056.86	1750	1060.75	1748	1064.59	1747.25	1066.03	1746.15	1087.16
GR	1746	1087.54	1744.18	1092.6	1744	1106.98	1744	1109.94	1743.96	1110.03
GR	1745.8	1113.56	1746	1116.26	1748	1139.68	1747.99	1139.83	1750	1144.13
GR	1752	1148.41	1754	1152.7	1756	1156.99	1757.77	1160.79	1758	1173.7
GR	1758.3	1199.32								
NC	0.02	0.02	0.02							
X1	230	28	1034.85	1169.03	490.46	498.91	494.76			
GR	1763.6	1000	1763.36	1034.85	1762	1040.25	1761.13	1043.65	1760.31	1056.95
GR	1760	1057.18	1758	1062.98	1756	1068.2	1754	1073.41	1753.53	1074.65
GR	1752.6	1090.81	1752	1093.04	1750.12	1100.45	1750.12	1113.46	1751.49	1119.83
GR	1752	1124.28	1753.26	1136.24	1754	1137.93	1756	1142.51	1758	1147.1
GR	1760	1151.69	1761.94	1156.15	1762	1156.82	1763.75	1168.26	1764	1169.03
GR	1766	1176.57	1766.64	1178.93	1766.86	1205.52				
NC	0.02	0.02	0.02							
X1	240	29	1026.08	1194.47	496.31	488.69	492			
GR	1774.8	1000	1774.34	1026.08	1774	1026.81	1772	1030.67	1770	1034.53
GR	1768	1038.38	1766	1042.19	1764	1045.88	1762	1049.77	1760	1053.67
	1758	1057.57	1757.43	1059.06	1757.79	1143.57	1758	1145.62	1758.74	1152.68
	1759.2	1157.83	1760	1159.46	1762	1163.99	1764	1168.57	1766	1173.21
	1768	1177.84	1770	1181.98	1772	1185.85	1774	1189.72	1776	1193.59
GR	1776.4	1194.47	1776.87	1267.84	1776	1276.18	1775.49	1280.88		

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NC	0.02	0.02	0.015							
X1	250	24	1036.04	1171.85	57.45	58.44	58.6			
GR	1775.4	1000	1775.23	1020.11	1774	1022.51	1772	1025.97	1770	1029.5
GR	1768	1033.08	1766.5	1036.04	1766	1037.59	1764	1043.3	1762	1047.58
GR	1760	1050.92	1758	1053.04	1758.34	1154.39	1760	1154.67	1762	1155.12
GR	1764	1155.69	1766	1162.7	1766.67	1171.85	1768	1174.97	1770	1178.13
GR	1772	1180.86	1774	1183.9	1776	1187.8	1776.99	1190.22		
NC	0.02	0.02	0.015							
X1	260	20	1033.31	1171.52	1	1	1			
GR	1775.4	1000	1775.24	1020.49	1774	1022.9	1772	1026.35	1770	1029.81
GR	1768	1033.31	1767.3	1042.07	1766	1048.18	1764	1050.85	1762	1051.85
GR	1762	1154.61	1764	1155.13	1766	1155.64	1766.66	1171.52	1767.82	1173.98
GR	1768	1174.12	1770	1176.75	1772	1179.4	1774	1183.08	1776	1187.74
NC	0.02	0.02	0.015							
X1	270	20	1008.92	1116.05	33.84	8.99	21.92			
GR	1775.8	964	1775	1000	1774	1003.1	1772	1008.92	1772.04	1008.94
GR	1770	1009.59	1768	1010.24	1766	1010.83	1764	1011.18	1762	1011.54
GR	1762	1113.08	1762	1114.49	1762	1114.56	1764	1114.95	1766	1115.24
GR	1768	1115.55	1770	1115.92	1771.04	1116.05	1772	1122.67	1774	1132.66
NC	0.02	0.02	0.015							
X1	280	18	1044.87	1151.21	1	1	1			
GR	1775.8	1000	1775.02	1036.1	1774	1039.28	1772.37	1044.87	1772	1044.99
GR	1770	1045.65	1768	1046.31	1766	1047.17	1766	1103.57	1766.18	1146.5
GR	1766	1148.22	1766	1149.86	1768	1150.4	1770	1150.81	1772	1151.16
GR	1772.2	1151.21	1774.03	1160.57	1774	1160.65				
NC	0.02	0.02	0.015							
X1	290	7	1047.98	1151	14.68	12.7	14.95			
X3	10			1047.98	1775	1150.91	1775			
GR	1775.6	1000	1775.05	1036.02	1774	1047.98	1766.55	1047.98	1766.55	1151
GR	1774	1151	1774.77	1160.59						
	0.02	0.02	0.015							
	0.9	1.56	2.6	106	103.02	5.02	588	0	1766.92	1766.55
	300	8	1025.54	1128.56	102.54	98.55	102.75			
X2			1	1772.92	1776.92			1.33		
X3	10			1025.54	1775.19	1128.56	1775.56			
GR	1774.8	1000	1775.19	1017.87	1775.12	1025.54	1766.92	1025.54	1766.92	1128.56
GR	1775.1	1128.56	1775.56	1133.94	1775.35	1147.13				
NC	0.02	0.02	0.015							
X1	310	20	1022.98	1171.53	102.64	105.7	100.28			
GR	1776.8	1000	1776	1016.17	1775.68	1022.98	1774	1028.26	1772	1034.5
GR	1770	1040.77	1768.95	1044.12	1768	1047.77	1767.87	1048.18	1767.78	1072.14

GR	1767.8	1131.12	1768	1132.45	1768.79	1137.38	1768.62	1147.75	1770	1152.28
GR	1772	1158.91	1774	1165.6	1775.77	1171.53	1776	1177.59	1776.8	1198.8

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NC	0.02	0.02	0.02							
X1	320	20	1022.11	1155.09	489.89	487.69	489.1			
GR	1779.4	1000	1778.04	1022.01	1778	1022.11	1776	1030.73	1774	1039.26
GR	1772	1047.79	1770.85	1052.67	1770.51	1061.45	1770	1063.83	1769.24	1067.59
GR	1770	1104.76	1770.04	1107.08	1771.21	1112.55	1771.76	1130.75	1772	1131.67
GR	1774	1139.29	1776	1146.67	1777.98	1153.84	1778	1155.09	1779.33	1191.2
NC	0.02	0.02	0.02							
X1	330	21	1027.28	1156.48	500.62	500.93	500.1			
GR	1781	1000	1780.94	1027.28	1780	1031.83	1778	1041.53	1776	1051.25
GR	1774	1060.96	1773.4	1063.9	1773.58	1078.46	1772	1084.27	1771.79	1085.02
GR	1771.8	1109.74	1772	1110.11	1774	1116.37	1774.53	1118.12	1774.72	1134.82
GR	1776	1138.9	1778	1145.34	1780	1151.87	1781.4	1156.48	1782	1173.24
GR	1782.3	1189.26								
NC	0.02	0.02	0.02							
X1	340	19	1000	1116.66	496.19	495.64	496.21			
GR	1783.7	907.67	1782.39	1000	1782	1002.25	1780	1013.68	1778	1025.11
GR	1777	1030.73	1776.57	1040.34	1776	1043.31	1774.53	1051.15	1774.37	1080.76
GR	1776	1084.3	1778	1088.43	1778.07	1088.55	1778.69	1101.43	1780	1107.4
GR	1782	1116.66	1784	1125.98	1785.09	1131.04	1785.6	1161.06		
NC	0.02	0.02	0.02							
X1	350	22	1042.74	1155.28	460.23	420.27	436.71			
GR	1786	1000	1786.37	1024.16	1787.1	1042.74	1786	1046.9	1784	1054.53
GR	1782	1062.22	1780	1069.93	1778	1077.61	1776.25	1084.32	1778.03	1100.93
GR	1777.2	1111.98	1778	1120.32	1779.54	1134.41	1778.08	1145.13	1780	1148.5
GR	1782	1151.93	1784	1155.28	1784.22	1155.66	1785.25	1168.43	1786	1172.75
GR	1787.2	1179.81	1787.3	1201.99						
NC	0.02	0.02	0.02							
X1	360	26	1014.07	1129.57	341.79	294.05	314.29			
X3	10			1014.07	1792	1129.57	1792			
GR	1798	1000	1796	1005.44	1794	1009.82	1792	1014.07	1790	1018.52
GR	1788	1023.42	1787.25	1025.48	1786	1027.93	1784	1030.77	1782	1033.57
GR	1781.8	1036.36	1781.62	1056.13	1780.02	1067.23	1780	1073	1779.67	1111.44
GR	1780	1112.32	1782	1117.65	1784	1122.81	1786	1127.74	1786.74	1129.57
GR	1786.9	1190.42	1786.92	1217.35	1788	1239.83	1788.97	1260.98	1789.6	1274.74
	1790	1319.61								
	0.02	0.02	0.02							
SB		1.56	2.6	150	80		943	1.5	1781.68	1779.67
X1	370	26	1019.93	1180.43	188.4	272.56	232.15			
X2			1	1791.68	1803.16					
X3	10			1019.93	1800	1180.43	1800			
GR	1801.2	1000	1800	1006.14	1798	1012.48	1796	1019.93	1794	1026.84
GR	1792	1033.63	1790	1039.5	1788	1044.33	1787.04	1047.52	1786	1050.99
GR	1784	1063.28	1782.66	1069.39	1782	1116.66	1781.68	1141.49	1782	1142.19
GR	1784	1147.19	1786	1151.46	1787.43	1154.02	1788	1156.17	1790	1161.17
GR	1792	1166.33	1794	1173	1796	1180.43	1798	1186.39	1800	1192.83
GR	1800.7	1196.96								

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NC	0.03	0.03	0.02							
X1	380	14	1091.25	1151.34	174.12	176.08	170.96			
X3	10			1091.25	1794	1151.34	1794			
GR	1792	1090.66	1792.75	1091.25	1792	1091.78	1790	1093.21	1788	1094.63
GR	1786	1096.06	1785.68	1096.29	1785.8	1149.56	1786	1149.61	1788	1150.11
GR	1790	1150.6	1792	1151.08	1793.07	1151.34	1794	1227.86		
NC	0.03	0.03	0.02							
X1	390	21	1045.15	1103.45	420.9	420.21	420.9			
X3	10			1045.15	1797	1103.45	1797			
GR	1792.6	1000	1793.3	1031.19	1793.78	1040.57	1794	1041.52	1794.81	1045.15
GR	1794	1045.61	1792	1046.74	1790	1047.86	1788	1049.03	1787.41	1049.38
GR	1787.2	1074.16	1787.54	1100.36	1788	1100.54	1790	1101.34	1792	1102.12
GR	1794	1102.9	1795.44	1103.45	1795.23	1128.39	1795.21	1144.16	1796	1147.04
GR	1797.3	1153.05								
NC	0.03	0.03	0.02							
X1	400	18	1042.29	1103.68	216.05	217.6	216.12			
X3	10			1042.29	1797	1103.68	1797			
GR	1795.3	1000	1795.77	1024.49	1795.76	1038.23	1796	1040.26	1796.25	1042.29
GR	1796	1042.47	1794	1043.62	1792	1044.73	1790	1045.83	1789.06	1046.34
GR	1788.6	1075.55	1788.96	1100.77	1790	1101.12	1792	1101.81	1794	1102.54
GR	1796	1103.31	1796.96	1103.68	1796.49	1128.41				
NC	0.03	0.03	0.02							
X1	410	21	1041.49	1100.98	236.79	212.87	222.64			
	1799	1000	1799.04	1002.09	1799.01	1019.84	1798	1026.7	1797.57	1029.5
	1797.2	1041.49	1796	1044.75	1794	1049.87	1792	1054.82	1790	1059.57
GR	1789.3	1061.07	1789.8	1078.69	1790	1092.24	1790.1	1099.54	1792	1099.88
GR	1794	1100.24	1796	1100.6	1798	1100.94	1798.24	1100.98	1798.57	1108.1
GR	1799.4	1170.81								
NC	0.03	0.03	0.02							
X1	420	24	1148.62	1204.8	228.48	213.43	218.15			
GR	1805.1	1000	1804.85	1087.59	1804.56	1107.49	1804	1110.27	1802	1120.11
GR	1800	1129.91	1799.62	1132.29	1798.49	1148.62	1798	1150.2	1796	1155.64
GR	1794	1161.15	1792	1166.99	1790.86	1170.59	1791.29	1186.61	1790.88	1202.56
GR	1792	1202.83	1794	1203.37	1796	1203.9	1798	1204.44	1799.34	1204.8

GR	1800	1213.14	1800	1213.21	1800.65	1276.28	1800.8	1276.28		
	0.03	0.03	0.015							
	430	6	1034.79	1072.54	228.08	218.61	221.27			
X3	10			1034.79	1805	1072.54	1805			
GR	1804.5	1000	1804.31	1034.79	1793.29	1034.79	1793.29	1072.54	1803.82	1072.54
GR	1803.7	1113.05								
NC	0.03	0.03	0.015							
SB	0.9	1.56	2.6	78	37.75	1.75	246	0	1794.3	1793.29
X1	440	9	1048.13	1085.88	183.21	206.01	197.38			
X2			1	1801.3	1802.38			1.33		
X3	10			1048.13	1805	1085.88	1805			
GR	1804	1000	1803.68	1007.43	1803.75	1048.13	1794.3	1048.13	1794.3	1085.88
GR	1803.7	1085.88	1803.91	1101.01	1804	1103.62	1805.3	1113.11		

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NC	0.025	0.025	0.04							
QT	1	5800								
X1	450	23	1056.87	1133.42	163.22	162.13	163.47			
X3	10			1056.87	1809	1133.42	1809			
GR	1804	1000	1804.07	1006.32	1804.32	1034.41	1804.73	1043.05	1804.96	1056.87
GR	1804	1058.72	1802	1062.07	1800	1065.72	1798	1069.89	1796	1074.12
GR	1795.5	1075.14	1796	1079.17	1797.92	1096.15	1798	1097.82	1799.19	1110.76
GR	1800	1121.55	1802	1125.68	1804	1129.41	1806	1133.42	1806.22	1133.91
GR	1806.3	1148.02	1806.93	1155.61	1806.39	1170.62				
NC	0.025	0.025	0.04							
X1	460	23	1048.18	1141.84	281.81	289.57	285.08			
X3	10			1048.18	1810	1141.84	1810			
GR	1808	1000	1808.02	1003.22	1808	1005.04	1807.55	1048.18	1806	1052.89
GR	1804	1059.32	1802.11	1065.59	1802	1067.54	1800.57	1088.15	1800	1090.66
GR	1798	1099.31	1797.57	1101.27	1797.83	1115.39	1798	1115.66	1800	1118.79
GR	1802	1121.96	1804	1125.23	1804.77	1126.62	1805.59	1139.81	1806	1140.19
GR	1808.4	1141.84	1808	1142.64	1808	1161.75				
NC	0.025	0.025	0.04							
X1	470	20	1035.45	1104.62	277.36	272.97	275.07			
X3	10			1035.45	1812	1104.62	1812			
GR	1810.7	1000	1810.44	1019.05	1811.3	1035.45	1810	1039.08	1808	1044.69
GR	1806	1050.13	1804	1055.32	1802	1061.49	1800.02	1066.39	1800	1067.21
GR	1799.3	1081.38	1800	1082.49	1802	1085.74	1804	1089.17	1806	1092.65
	1806.1	1092.79	1808	1096.72	1810	1100.89	1810.59	1104.62	1810.87	1120.75
	0.025	0.025	0.04							
SB		1.56	2.6	100	20		288	2	1799.67	1799.29
X1	480	23	1049.96	1121.92	29.43	28.85	29.16			
X2			1	1808	1811.3					
X3	10			1049.96	1815	1121.92	1815			
GR	1810.8	1000	1810.29	1022.32	1810.42	1043.96	1811.06	1049.96	1810	1052.71
GR	1808	1057.64	1806	1063.42	1804	1071.44	1802	1076.07	1800.34	1079.25
GR	1800	1088.82	1799.67	1097.89	1800	1098.19	1802	1100.01	1804	1101.93
GR	1806	1109.03	1808	1115.05	1810	1119.54	1810.67	1121.92	1811.24	1130.7
GR	1810	1145.14	1809.57	1148.54	1809.64	1162.76				
NC	0.025	0.025	0.04							
X1	490	27	1050.08	1127.64	421.17	376.41	404.91			
X3	10			1050	1816	1127.64	1816			
GR	1816	1000	1816.02	1001.56	1814.9	1019.89	1814.74	1038.47	1815.04	1050.08
GR	1814	1052.5	1812	1057.09	1810	1061.66	1808	1066.16	1806	1070.64
GR	1804	1075.1	1803.66	1075.85	1804	1083.12	1804.15	1088.63	1806	1092.46
GR	1808	1096.8	1810	1101.52	1810.26	1101.82	1810	1113.29	1809.88	1118.54
GR	1810	1119.08	1812	1125.39	1812.71	1127.64	1812.65	1132.54	1812.36	1149.58
GR	1812.4	1162.71	1812.58	1182.47						

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NC	0.025	0.025	0.04							
X1	500	27	1035.57	1117.1	475.67	455.34	467.9			
X3	10			1035.57	1821	1117.1	1821			
GR	1820.6	1000	1820.49	1017.79	1820	1035.57	1820.01	1036.35	1818	1038.99
GR	1816	1041.72	1814	1044.53	1812	1047.45	1810	1050.47	1808	1053.53
GR	1807.5	1054.17	1808	1059.53	1808.27	1062.4	1810	1077.16	1811.11	1085.69
GR	1812	1088.38	1814	1094.42	1816	1100.48	1817.15	1103.98	1818	1112.84
GR	1818.4	1117.1	1818	1130.34	1817.52	1146.76	1817.56	1162.65	1817.78	1176.1
GR	1818	1181.93	1818.33	1189.71						
NC	0.02	0.02	0.03							
X1	510	21	1051.63	1118	410.79	403.61	413.47			
GR	1822.7	1000	1822	1014.17	1821.1	1051.63	1820	1053.73	1818	1057.54
GR	1816	1061.35	1814	1065.16	1812	1068.96	1811.08	1070.77	1810.29	1084.94
GR	1812	1091.3	1814	1098.08	1816	1104.27	1818	1110.29	1820	1116.14
GR	1820.6	1118	1821.24	1184.8	1821.07	1201.95	1821.84	1211.83	1822	1218.61
	1822.5	1218.61								
	0.02	0.02	0.03							
X1	520	29	1020.76	1156.45	494.67	471.93	477.37			
GR	1830.9	1000	1830	1005.42	1829.57	1007.86	1828.53	1020.76	1828	1022.81
GR	1826	1030.61	1824	1038.4	1822	1046.19	1820	1053.98	1818.67	1059.18
GR	1818.1	1072.9	1818	1073.42	1816	1079.92	1814.82	1084.01	1816	1106.79
GR	1816.3	1112.44	1817.17	1120.26	1818	1123.13	1820	1130.03	1822	1136.92
GR	1824	1143.81	1825.52	1149.11	1826	1150.07	1828	1153.82	1829.41	1156.45
GR	1828	1169.03	1830	1185.2	1832	1235.46	1832.56	1257.15		
NC	0.02	0.02	0.03							
X1	530	25	1016.88	1152.68	371.54	424.3	399.2			

GR	1832	1000	1831.88	1004.01	1831.69	1016.88	1830	1021.18	1828	1026.26
GR	1826	1031.34	1824	1036.37	1822.35	1040.5	1822.35	1059.95	1822	1060.65
	1820	1064.77	1818	1068.85	1817.83	1069.21	1817.62	1090.03	1818	1090.71
	1820	1093.58	1822	1096.4	1823.81	1099.05	1824	1102.34	1826	1121.49
GR	1828	1130.45	1828.88	1133.79	1830	1143.91	1830.93	1152.68	1831.19	1159.85
NC	0.02	0.02	0.03							
X1	540	26	1018.16	1117.46	460.35	522.62	489.72			
GR	1834.9	1000	1834.9	1018.16	1834	1020.8	1832	1026.45	1830	1031.95
GR	1828	1037.42	1827.86	1037.75	1828	1041.19	1828.5	1054.97	1828	1055.74
GR	1826	1058.87	1824	1062.02	1823.45	1062.88	1823.47	1092.33	1824	1093.02
GR	1826	1095.58	1828	1098.1	1828.7	1098.97	1828.48	1106.52	1830	1108.88
GR	1832	1111.99	1834	1115.1	1835.51	1117.46	1836	1133.36	1836.3	1144.44
GR	1836.7	1152.23								
NC	0.02	0.02	0.03							
X1	550	28	1021.09	1124.94	438.1	474.94	456.26			
GR	1840.1	1000	1840	1001.92	1839.99	1006.32	1839.32	1021.09	1838	1024.57
GR	1836	1029.84	1833.93	1035.32	1834	1035.34	1833.46	1054.03	1832	1056.65
GR	1830	1060.26	1828	1063.9	1826.66	1066.34	1826.79	1083.14	1828	1085.42
GR	1830	1089.19	1832	1092.91	1834.1	1096.67	1834	1097.34	1834	1105.63
GR	1834	1111.84	1833.95	1114.36	1836	1119.24	1838	1124.12	1838.31	1124.94
GR	1839.6	1150.68	1840	1160.26	1840.11	1162.86				

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NC	0.02	0.02	0.03							
X1	560	32	1011.15	1130.99	332.03	327.26	330.24			
GR	1847.8	1000	1846.27	1003.9	1846	1006.41	1845.43	1011.15	1844	1015.37
GR	1842	1021.39	1840	1027.57	1838	1033.9	1836.1	1039.95	1836	1045.57
GR	1835.9	1053.25	1834	1056.42	1832	1059.77	1830	1063.2	1829.01	1064.93
GR	1828	1072.16	1827.85	1073.13	1828	1074.51	1828.64	1080.27	1830	1082.3
GR	1832	1085.3	1834	1088.32	1836	1091.45	1836.23	1091.7	1836.22	1110.34
GR	1838	1115.46	1840	1121.18	1842	1126.85	1843.5	1130.99	1844	1135.55
GR	1845.8	1151.17	1845.91	1156.17						
NC	0.02	0.02	0.03							
X1	570	31	1064.51	1140.01	229.29	230.35	228.38			
GR	1847.9	1000	1846	1056.21	1845.65	1064.51	1844	1065.7	1842	1067.16
GR	1840	1068.62	1838	1070.08	1836	1071.54	1834	1072.98	1832	1073.78
GR	1832	1074.63	1832	1075.05	1832	1084.35	1832	1091.24	1831.69	1120.28
GR	1832	1120.51	1832	1120.78	1832	1121.95	1834	1124.47	1836	1126.81
GR	1838	1129.15	1840	1131.49	1842	1133.85	1844	1136.23	1846	1138.69
	1847	1140.01	1847.35	1156.32	1848	1159.82	1849.6	1168.44	1850	1170.12
	1850.7	1172.42								
NC	0.02	0.02	0.015							
X1	580	30	1055.05	1128.8	1	1	1			
GR	1847.7	1000	1847.49	1012.37	1846	1049.98	1845.83	1055.05	1844	1056.21
GR	1842	1057.48	1840	1058.71	1838	1059.87	1836	1060.93	1834	1061.78
GR	1834	1062.46	1834	1063.07	1834	1063.47	1834	1064.19	1834	1080.22
GR	1834	1109.26	1834	1109.31	1834	1114.45	1836	1116.75	1838	1119.03
GR	1840	1121.3	1842	1123.52	1844	1125.65	1846	1127.71	1847.09	1128.8
GR	1847.5	1145.88	1848	1148.67	1849.67	1157.77	1850	1158.89	1851.05	1161.45
NC	0.02	0.02	0.015							
X1	590	11	1031.2	1085.04	16.02	16.7	15.77			
X3	10			1031.2	1848	1085.04	1848			
GR	1847.3	1000	1847.01	1010.93	1846.27	1031.2	1834.21	1031.2	1834.21	1085.04
GR	1846.2	1085.04	1847.07	1099.88	1848	1120.18	1849.73	1131.49	1850	1132.09
GR	1851.3	1134.18								
NC	0.02	0.02	0.015							
SB	0.9	1.56	2.6	60	53.84	3.84	400	0	1835.13	1834.21
X1	600	15	1081.85	1135.69	93.41	94.92	93.51			
X2			1	1843.13	1846.5			1.33		
X3	10			1081.85	1848	1135.69	1848			
GR	1851	1000	1850	1003.75	1848	1011.09	1847.6	1012.57	1847.64	1032.47
GR	1848	1035.82	1849.27	1065.44	1848	1070.71	1847.2	1074.22	1846	1081.85
GR	1835.1	1081.85	1835.13	1135.69	1847.56	1135.69	1847.68	1152.6	1848	1170.43
NC	0.02	0.02	0.015							
X1	610	20	1083.2	1136.14	230.78	201.73	215.38			
X3	10			1061.48	1853	1207.54	1853			
GR	1851.7	1000	1851.08	1029.96	1852	1046.46	1852.83	1061.48	1852.52	1068.39
GR	1852	1080.06	1851.91	1083.2	1850	1085.83	1848	1088.59	1846	1091.36
GR	1844	1094.17	1842.71	1095.99	1842.62	1124.12	1844	1126.53	1846	1130
GR	1848	1133.45	1849.56	1136.14	1850	1155.27	1852	1197.8	1852.45	1207.54

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NC	0.02	0.02	0.015							
X1	620	20	1033.45	1086.27	223.64	202.43	212.31			
GR	1859.3	1000	1858	1007.7	1857.16	1012.48	1856	1018.28	1855.25	1022.06
GR	1855.4	1033.45	1854	1035.35	1852	1037.9	1850	1040.44	1848	1042.97
	1846	1045.49	1845.48	1046.14	1845.66	1075.97	1846	1076.49	1848	1079.51
	1850	1082.53	1852	1085.57	1852.46	1086.27	1854	1135.67	1855.53	1176.03
NC	0.02	0.02	0.015							
X1	630	18	1031	1084.55	229.09	213.86	221.03			
GR	1861.2	1000	1860	1004.03	1858.27	1009.63	1858	1010.62	1856	1018.67
GR	1855.9	1018.82	1855.06	1031	1854	1032.96	1852	1036.68	1850	1040.45
GR	1848.1	1044.02	1848.28	1071.6	1850	1074.89	1852	1078.71	1854	1082.53
GR	1855	1084.55	1856	1129.14	1857	1165.99				
NC	0.02	0.02	0.015	0.1	0.3					
X1	640	19	1026.88	1079.43	251.59	262.14	258.21			

GR	1864.5	1000	1864.16	1004.77	1864	1005.12	1862	1009.4	1860	1013.41
	1858.6	1016.12	1858.09	1026.88	1858	1027.05	1856	1030.75	1854	1034.43
	1852	1038.12	1851.39	1039.25	1851.37	1067.22	1852	1068.01	1854	1070.51
	1856	1073	1858	1075.48	1860	1077.94	1861.23	1079.43		
NC	0.02	0.02	0.015							
X1	650	8	1035.35	1088.02	196.87	225.93	211.31			
X3	10			1035.35	1867	1088.02	1867			
GR	1866	941.77	1867.8	1000	1866.17	1035.35	1853.8	1035.35	1853.8	1088.02
GR	1866.1	1088.02	1866.1	1156.84	1866	1161.59				
NC	0.02	0.02	0.015							
SB	0.9	1.56	2.6	150	52.67	2.67	400	0	1856.17	1853.8
X1	660	11	1077.26	1129.93	191.11	191.17	191.78			
X2			1	1864.17	1869.17			1.33		
X3	10			1077.26	1870	1129.93	1870			
GR	1870.6	1000	1870	1032.33	1869.6	1060.4	1869.67	1077.26	1856.17	1077.26
GR	1856.1	1129.93	1869.5	1129.93	1870.02	1166.85	1870	1168.76	1870	1172.88
GR	1868.6	1207.45								
NC	0.025	0.025	0.025							
QT	1	5500								
X1	670	31	1067.82	1168.26	476.18	438.91	452.82			
GR	1879.4	1000	1878	1007.84	1877.77	1009.03	1877.27	1027.56	1876.26	1048.09
GR	1876	1049.44	1875	1054.05	1874.27	1067.82	1874	1068.59	1872	1072.93
GR	1870	1077.28	1868	1081.62	1866	1085.96	1864	1090.29	1862	1094.57
GR	1860	1098.77	1859.16	1100.51	1859	1121.06	1860	1131.32	1860.34	1134.65
GR	1860.7	1147.65	1862	1149.57	1864	1152.62	1866	1155.67	1868	1158.72
GR	1870	1161.77	1872	1164.82	1874	1167.84	1874.29	1168.26	1875	1189.7
GR	1875.3	1193.35								
NC	0.025	0.025	0.025							
X1	680	28	1032.41	1126.45	478.66	448	461.54			
GR	1882.6	1000	1882	1011.76	1880.87	1032.41	1880	1034.16	1878	1038.48
GR	1876	1042.78	1874	1047.09	1872	1051.41	1870	1055.75	1868	1060.1
GR	1866	1064.48	1864.4	1067.99	1864	1071.62	1862.6	1085.72	1864.01	1092.79
GR	1864	1093.89	1864.2	1101.75	1866	1104.88	1868	1108.34	1870	1111.81

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GR	1872	1115.28	1874	1118.74	1876	1122.22	1878	1125.69	1878.44	1126.45
GR	1878.7	1156.41	1878	1161.77	1876.53	1173.07				
NC	0.025	0.025	0.025							
	690	10	1057.3	1141.3	408.17	434.4	422.9			
	10			1057.3	1894	1141.3	1894			
GR	1894	1000	1894	1014.18	1886	1057.29	1877	1057.3	1866	1079.3
GR	1866	1119.3	1877	1141.3	1886	1141.31	1894	1162.81	1894	1172.96
NC	0.025	0.025	0.025							
SB		1.56	2.6	90	40		1240	2	1866	1866
X1	700	8	1011.47	1095.49	132.78	172.81	153.08			
X2			1	1886	1894					
GR	1894	1000	1886	1011.47	1877	1011.48	1866	1033.48	1866	1073.48
GR	1877	1095.48	1886	1095.49	1894	1097.52				
NC	0.025	0.025	0.025							
X1	710	22	1055.32	1141.88	416	467.23	424.6			
GR	1887	1000	1887.65	1055.32	1886	1058.98	1884	1063.38	1882	1067.76
GR	1880	1072.17	1878	1076.59	1876.67	1079.53	1876.5	1091.93	1878	1098.6
GR	1878.2	1099.74	1880	1110.14	1880.28	1112.24	1882	1115.7	1884	1119.72
GR	1886	1123.75	1888	1127.78	1890	1131.82	1892	1135.86	1894	1139.91
GR	1894.9	1141.88	1896	1168.62						
NC	0.025	0.025	0.025							
X1	720	28	1031.02	1123.52	499.28	495.17	498.02			
GR	1895.4	1000	1895.51	1008.85	1894	1013.03	1892	1018.46	1890.74	1021.86
GR	1890.3	1031.02	1890	1031.86	1888	1036.41	1886	1041.01	1884	1045.63
GR	1882	1050.25	1882	1050.99	1881.59	1059.51	1882	1063.99	1882.46	1068.23
GR	1882.7	1085.75	1884	1093.67	1884.05	1094.02	1885.72	1102.19	1886	1102.68
GR	1888	1106.25	1890	1109.82	1892	1113.4	1894	1117.01	1896	1120.66
GR	1897.5	1123.52	1898	1138.24	1898	1204.99				
NC	0.025	0.025	0.025							
X1	730	27	1056.08	1126.41	484.5	472.89	480.56			
GR	1895.5	980.55	1890	997.92	1888.44	1014.84	1888.81	1032	1890	1034.91
GR	1892	1040.78	1892.61	1042.69	1892.66	1056.08	1892	1058.03	1890	1063.82
GR	1888	1069.32	1887.87	1069.57	1887.34	1076.5	1886	1080.07	1885.41	1081.64
GR	1885.1	1105.73	1886	1106.9	1888	1109.69	1890	1112.46	1892	1115.21
GR	1894	1117.97	1896	1120.72	1898	1123.48	1900	1126.26	1900.12	1126.41
GR	1900.5	1149.64	1900	1152.55						
NC	0.025	0.025	0.025							
X1	740	30	1042.02	1119.91	502.08	483.58	492.38			
GR	1901.2	1000	1902	1005.26	1904	1021.59	1904.51	1025.97	1904	1027.47
GR	1902	1034.42	1900	1042.02	1900.03	1042.1	1898	1046.77	1896	1051.39
GR	1894	1056.04	1893.01	1058.37	1892.51	1063.92	1892	1064.96	1890	1068.86
	1889.5	1069.72	1889.67	1082.45	1889.35	1096.82	1890	1098.41	1892	1103.02
	1892.5	1104.29	1894	1106.26	1896	1108.92	1898	1111.43	1900	1113.86
	1902	1116.25	1904	1118.59	1905.14	1119.91	1904.81	1126.67	1904	1127.41

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NC	0.025	0.025	0.025							
X1	750	40	1044.53	1148.05	361.65	431.03	391.69			
GR	1906.9	1000	1906	1004.65	1905.04	1009.47	1906	1015.43	1906.84	1019.12
GR	1906	1021.92	1904	1031.78	1903.79	1032.81	1903.79	1044.53	1902	1048.63
GR	1900	1053.26	1898	1057.91	1895.97	1062.64	1896	1063.05	1894.93	1077.63

GR	1894	1083.07	1893.44	1086.12	1893.85	1093.82	1894	1094.65	1895.88	1107.68
GR	1896	1108	1898	1113.7	1900	1119.39	1900.96	1122.14	1902	1123.57
	1904	1126.35	1906	1129.15	1908	1131.96	1910	1134.78	1912	1137.6
	1914	1140.41	1916	1143.23	1918	1146.05	1919.42	1148.05	1918	1155.65
GR	1916.8	1161.99	1916.93	1173.3	1916.59	1183.77	1916.83	1193	1918	1211.96
NC	0.025	0.025	0.025							
X1	760	24	1035.23	1131.59	409.52	457.63	428.24			
GR	1906.9	1000	1906.7	1035.23	1906	1036.91	1904	1042.08	1902	1047.23
GR	1901.2	1049.24	1900	1056.11	1898.24	1065.72	1898.23	1068.7	1899.02	1080.49
GR	1899.8	1088.61	1899.92	1101.11	1900	1101.27	1902	1105.14	1904	1109.01
GR	1906	1112.87	1908	1116.71	1910	1120.52	1912	1124.3	1914	1128.06
GR	1915.9	1131.59	1914.4	1139.1	1914	1153.98	1912.9	1195.72		
NC	0.025	0.025	0.025							
X1	770	24	1015.76	1126.99	456.52	419.22	434.78			
GR	1915	1000	1914	1015.76	1913.93	1016.79	1912	1022.95	1910	1029.33
GR	1908	1035.7	1906	1042.07	1905.12	1044.87	1904.51	1063.27	1904	1066.58
GR	1903.2	1072.95	1903.42	1081.93	1903.73	1095.61	1903.96	1105.84	1904	1105.97
GR	1906	1113.03	1906.63	1115.29	1908	1117.4	1910	1120.69	1912	1124.57
GR	1913.1	1126.99	1912.81	1130.93	1912.89	1143.7	1914	1148.24		
NC	0.025	0.025	0.015							
X1	780	8	1058.72	1114.05	52.99	49.44	49.44			
X3	10			1058.72	1916.5	1114.05	1916.5			
GR	1916.4	1000	1916	1003.3	1914.9	1058.72	1903.78	1058.72	1903.78	1114.05
GR	1914	1114.05	1914	1121.8	1915.01	1149.26				
NC	0.025	0.025	0.015							
SB	1.25	1.56	2.6	80	55.33	5.33	400	0	1905.12	1903.78
X1	790	10	1028.58	1083.91	108.42	108.26	108.02			
X2			1	1913.12	1917.12			2		
X3	10			1028.58	1916	1083.91	1916			
GR	1916	1000	1915.8	1001.42	1915.93	1017.77	1914.87	1028.58	1905.12	1028.58
GR	1905.1	1083.91	1914.59	1083.91	1916	1104.86	1916.37	1109.9	1916	1131.78
NC	0.035	0.035	0.03							
X1	800	14	1012.48	1094.47	100.8	88.06	95.8			
X3	10			1000	1915.5	1094.47	1915.5			
GR	1914.6	1000	1914.21	1012.48	1914	1012.99	1912	1017.82	1910	1022.59
GR	1908	1027.3	1904.86	1031.73	1904.86	1053.16	1904.86	1061.2	1908	1072.68
GR	1910	1078.88	1912	1084.82	1914	1090.67	1915.12	1094.47		

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	0.035	0.035	0.03	0.1	0.3					
X1	810	28	1144.23	1205.12	221.84	144.84	185.09			
GR	1918	980.65	1917.34	990.58	1916	1000	1914	1016.18	1913.61	1019.48
GR	1912	1086.58	1911.68	1097.61	1911.77	1130.03	1911.33	1144.23	1910.82	1158.38
GR	1910	1162.77	1908	1167.25	1906	1172.16	1905.36	1173.67	1905.8	1185.18
GR	1906	1185.5	1908	1188.52	1910	1192.61	1910.28	1194.53	1911.05	1205.12
GR	1911.2	1228.44	1911.5	1247.06	1912	1258.22	1914	1295.39	1914.12	1296.38
GR	1915.1	1324.03	1916	1338.5	1918	1370.57				

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
ALLOWABLE ERROR FOR CRITICAL DEPTH DETERMINATION (ALLDC) = 2.000 PERCENT OF THE DEPTH

CCHV= .100 CEHV= .300

*SECNO 10.000									
10.000	8.37	1708.70	1707.40	1705.00	1710.19	1.48	.00	.00	1710.00
6400.0	.0	6400.0	.0	.0	654.9	.1	.0	.0	1708.60
.00	.00	9.77	.03	.000	.030	.030	.000	1700.33	1009.11
.004017	0.	0.	0.	0	14	5	.00	119.45	1128.56
*SECNO 20.000									
20.000	7.61	1710.73	1710.04	.00	1712.55	1.82	2.27	.10	1711.97
6400.0	.0	6400.0	.0	.0	591.5	.0	7.0	1.3	1713.45
.01	.00	10.82	.00	.000	.030	.000	.000	1703.12	1187.56
.005416	483.	489.	498.	2	12	0	.00	114.06	1301.62
*SECNO 30.000									
30.000	7.51	1713.36	1712.99	.00	1715.48	2.12	2.84	.09	1712.41
6400.0	27.4	6372.6	.0	11.7	544.1	.0	13.5	2.7	1713.61
.02	2.34	11.71	.00	.030	.030	.000	.000	1705.85	1028.67
.006014	495.	498.	504.	2	12	0	.00	125.10	1153.77
*SECNO 40.000									
40.000	9.07	1716.27	1715.79	.00	1718.18	1.91	2.67	.02	1716.00
6400.0	1.4	6177.9	220.7	1.5	548.8	55.2	20.1	4.3	1714.00
.04	.92	11.26	4.00	.030	.030	.030	.000	1707.20	1135.37
.004947	500.	492.	481.	2	8	0	.00	154.35	1289.72

*SECNO 50.000

*** J1 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.40

50.000	9.46	1718.36	1716.06	.00	1719.32	.96	1.04	.10	1720.56
6400.0	.0	6400.0	.0	.0	815.2	.0	25.1	5.3	1720.00
.05	.00	7.85	.00	.000	.030	.000	.000	1708.90	1075.00
.002510	334.	306.	278.	2	15	0	.00	142.96	1217.96

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 60.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.45

60.000	9.73	1719.67	1717.29	.00	1720.20	.53	.84	.04	1718.01
6400.0	498.6	4971.7	929.7	199.2	769.7	335.3	37.2	8.4	1716.63
.07	2.50	6.46	2.77	.030	.030	.030	.000	1709.94	1002.76
.001193	500.	499.	502.	2	12	0	.00	396.87	1399.63

*SECNO 70.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

70.000	7.53	1719.53	1719.53	.00	1722.12	2.59	1.23	.62	1723.69
6400.0	.0	6400.0	.0	.0	495.4	.0	47.5	11.2	1719.59
.08	.00	12.92	.00	.000	.030	.000	.000	1712.00	1100.15
.007946	493.	498.	498.	0	12	0	.00	97.17	1197.32

*SECNO 80.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.54

80.000	8.83	1723.21	1721.50	.00	1724.56	1.35	2.31	.12	1723.19
6400.0	.0	6400.0	.0	.0	686.0	.0	53.9	12.3	1725.21
.10	.03	9.33	.00	.030	.030	.000	.000	1714.38	1146.51
.003339	456.	471.	482.	2	11	0	.00	115.23	1261.74

*SECNO 90.000

3301 HV CHANGED MORE THAN HVINS

90.000	9.58	1724.77	1723.80	.00	1726.63	1.85	1.91	.15	1724.64
6400.0	.4	6399.6	.0	.7	585.5	.0	60.9	13.6	1727.42
.11	.55	10.93	.00	.030	.030	.000	.000	1715.19	1046.26
.004785	495.	482.	465.	3	8	0	.00	110.73	1156.98

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 100.000

100.000	7.72	1726.42	1724.67	.00	1727.81	1.40	1.14	.05	1728.00
6400.0	.0	6400.0	.0	.0	674.4	.0	65.2	14.3	1727.26
.12	.00	9.49	.00	.000	.030	.000	.000	1718.70	1026.65
.003204	290.	295.	300.	2	14	0	.00	104.36	1131.01

*SECNO 110.000

*** 01 HV CHANGED MORE THAN HVINS

85 MINIMUM SPECIFIC ENERGY
.720 CRITICAL DEPTH ASSUMED

110.000	5.29	1725.79	1725.79	.00	1728.22	2.43	.06	.31	1728.00
6400.0	.0	6400.0	.0	.0	512.0	.0	65.5	14.4	1727.52
.12	.00	12.50	.00	.000	.015	.000	.000	1720.50	1027.80
.002026	26.	26.	26.	0	14	0	.00	106.34	1134.14

*SECNO 120.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

```
 7470 ENCROACHMENT STATIONS=     1029.5     1136.5  TYPE=       1  TARGET=       107.000
  LENCL=   1730.00  ELENCR=   1730.00

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       1728.00 ELREA=       1730.00

    120.000      4.79   1726.69   1726.69       .00   1729.11      2.42       .19       .00   1728.00
     6400.0        .0    6400.0        .0        .0     512.5        .0      66.6      14.6   1730.00
        .12       .00     12.49       .00      .000      .015      .000      .000   1721.90   1029.49
    .002207       89.       90.       93.         0        11         0       .00    107.00   1136.49


 SPECIAL BRIDGE

 5227 DOWNSTREAM ELEV IS     1725.83 , NOT     1726.69 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
        .90       1.56       2.60      145.00    107.00       7.00     500.00       .00    1722.53    1721.90

 *SECNO 130.000
 3280 CROSS SECTION     130.00 EXTENDED        .83 FEET

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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


 3301 HV CHANGED MORE THAN HVINS

 3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.85

 PRESSURE FLOW

  EGPRS       EGLWC       H3        QWEIR       QPR        BAREA     TRAPEZOID      ELLC       ELTRD      WEIRLN
                                                                          AREA
    1730.66   1730.30       .00         0.      6400.        500.        500.    1727.53    1731.43          0.


 3470 ENCROACHMENT STATIONS=     1035.8     1142.8  TYPE=       1  TARGET=       107.000
  ELENCL=   1731.00  ELENCR=   1731.00

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       1728.00 ELREA=       1731.00

    130.000      6.99   1729.52       .00       .00   1730.66      1.14      1.55       .00   1728.00
     6400.0        .0    6400.0        .0        .0     748.4        .0      68.3      14.9   1731.00
        .12       .00      8.55       .00      .000      .015      .000      .000   1722.53   1035.81
    .000645      121.      120.      118.         3         0         0       .00    107.00   1142.81


 *SECNO 140.000
 3280 CROSS SECTION     140.00 EXTENDED       1.27 FEET

 3470 ENCROACHMENT STATIONS=     1149.7     1265.6  TYPE=       1  TARGET=       115.910
  ELENCL=   1730.00  ELENCR=   1730.00

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       1728.41 ELREA=       1730.00

    140.000      6.85   1729.45   1727.93       .00   1730.75      1.30       .05       .05   1728.41
     6400.0        .0    6400.0        .0        .0     698.7        .0      69.4      15.1   1730.00
        .13       .00      9.16       .00      .000      .015      .000      .000   1722.60   1149.72
    .000808       65.       64.       64.         2        15         0       .00    115.91   1265.63


 *SECNO 150.000
1
    16DEC98       14:05:16                                                                                PAGE   19

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 720 CRITICAL DEPTH ASSUMED
    150.000      6.46   1729.99   1729.99       .00   1732.17      2.18       .73       .26   1731.69
     6300.0        .0    6300.0        .0        .0     532.2        .0      76.3      16.4   1731.09
        .14       .00     11.84       .00      .000      .020      .000      .000   1723.53   1024.14
    .003737      491.      490.      489.         0        11         0       .00    124.87   1149.01


 *SECNO 160.000

 3301 HV CHANGED MORE THAN HVINS

    160.000      6.50   1732.11   1731.56       .00   1733.75      1.64      1.53       .05   1733.26
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6300.0	.0	6300.0	.0	.0	613.0	.0	82.9	17.9	1734.00
.15	.00	10.28	.00	.000	.020	.000	.000	1725.61	1045.54
.002537	501.	502.	503.	2	11	0	.00	132.85	1178.39

*SECNO 170.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

170.000	6.04	1733.34	1733.34	.00	1735.45	2.11	1.49	.14	1734.50
6300.0	.0	6300.0	.0	.0	540.6	.0	89.4	19.4	1735.09
.16	.00	11.65	.00	.000	.020	.000	.000	1727.30	1046.37
.003759	487.	487.	488.	0	11	0	.00	130.75	1177.12

*SECNO 180.000

180.000	5.61	1735.21	1735.03	.00	1737.18	1.97	1.72	.01	1736.58
6300.0	.0	6300.0	.0	.0	559.5	.0	95.6	20.8	1737.72
.18	.00	11.26	.00	.000	.020	.000	.000	1729.60	1041.60
.003261	491.	492.	492.	2	11	0	.00	127.87	1169.47

*SECNO 190.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

190.000	6.70	1739.49	1739.49	.00	1741.88	2.39	1.71	.13	1742.00
6300.0	.0	6300.0	.0	.0	508.1	.0	101.7	22.2	1741.63
.19	.00	12.40	.00	.000	.020	.000	.000	1732.79	1006.97
.003627	499.	498.	497.	0	11	0	.00	108.37	1115.34

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 200.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

200.000	6.16	1742.86	1742.86	.00	1745.31	2.45	1.79	.02	1746.00
6300.0	.0	6300.0	.0	.0	502.0	.0	107.4	23.4	1748.00
.20	.00	12.55	.00	.000	.020	.000	.000	1736.70	1007.81
.003603	494.	495.	497.	0	11	0	.00	104.30	1112.11

*SECNO 210.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

210.000	9.31	1746.83	1746.83	.00	1749.68	2.85	1.78	.12	1752.00
6300.0	.0	6300.0	.0	.0	465.2	.0	113.0	24.5	1753.31
.21	.00	13.54	.00	.000	.020	.000	.000	1737.52	1014.22
.003528	500.	500.	500.	0	14	0	.00	83.71	1097.93

*SECNO 220.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

220.000	7.97	1751.93	1751.93	.00	1754.61	2.68	1.69	.02	1759.83
6300.0	.0	6300.0	.0	.0	479.2	.0	118.1	25.4	1757.77
.22	.00	13.15	.00	.000	.020	.000	.000	1743.96	1056.99
.003578	465.	477.	489.	0	15	0	.00	91.27	1148.26

*SECNO 230.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

230.000	8.28	1758.40	1758.40	.00	1761.19	2.78	1.75	.03	1763.36
6300.0	.0	6300.0	.0	.0	470.5	.0	123.5	26.4	1764.00
.23	.00	13.39	.00	.000	.020	.000	.000	1750.12	1061.81
.003514	490.	495.	499.	0	8	0	.00	86.22	1148.03

*SECNO 240.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

240.000	5.18	1762.61	1762.61	.00	1764.88	2.26	1.77	.05	1774.34
6300.0	.0	6300.0	.0	.0	522.0	.0	129.1	27.6	1776.40
.24	.00	12.07	.00	.000	.020	.000	.000	1757.43	1048.58
.003668	496.	492.	489.	0	14	0	.00	116.82	1165.40

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 250.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

250.000	5.05	1763.05	1763.05	.00	1765.39	2.34	.16	.02	1766.50
6300.0	.0	6300.0	.0	.0	513.2	.0	129.8	27.7	1766.67
.24	.00	12.28	.00	.000	.015	.000	.000	1758.00	1045.34
.002101	57.	59.	58.	0	8	0	.00	110.08	1155.42

*SECNO 260.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

260.000	4.97	1766.97	1766.97	.00	1769.12	2.15	.00	.02	1768.00
6300.0	.0	6299.9	.1	.0	536.0	.1	129.8	27.7	1766.66
.24	.00	11.75	.95	.000	.015	.020	.000	1762.00	1043.60
.002196	1.	1.	1.	0	5	0	.00	128.59	1172.19

*SECNO 270.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

270.000	4.86	1766.86	1766.86	.00	1769.28	2.42	.05	.08	1772.00
6300.0	.0	6300.0	.0	.0	504.7	.0	130.1	27.8	1771.04
.24	.00	12.48	.00	.000	.015	.000	.000	1762.00	1010.58
.002156	34.	22.	9.	0	8	0	.00	104.80	1115.37

*SECNO 280.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

280.000	4.89	1770.89	1770.89	.00	1773.30	2.41	.00	.00	1772.37
6300.0	.0	6300.0	.0	.0	505.9	.0	130.1	27.8	1772.20
.24	.00	12.45	.00	.000	.015	.000	.000	1766.00	1045.36
.002139	1.	1.	1.	0	5	0	.00	105.61	1150.97

*SECNO 290.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1048.0 1150.9 TYPE= 1 TARGET= 102.930
ELENCL= 1775.00 ELENCR= 1775.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1774.00 ELREA= 1775.00

290.000	4.86	1771.41	1771.41	.00	1773.87	2.46	.03	.02	1774.00
6300.0	.0	6300.0	.0	.0	500.6	.0	130.3	27.8	1775.00
.24	.00	12.58	.00	.000	.015	.000	.000	1766.55	1047.98
.002208	15.	15.	13.	0	5	0	.00	102.93	1150.91

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1770.65 , NOT 1771.41 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.56	2.60	106.00	103.02	5.02	588.00	.00	1766.92	1766.55

*SECNO 300.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1771.78 BRIDGE VELOCITY= 12.74 CALCULATED CHANNEL AREA= 476.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1774.19	1774.61	.00	0.	6300.	588.	588.	1772.92	1776.92	0.

3470 ENCROACHMENT STATIONS= 1025.5 1128.6 TYPE= 1 TARGET= 103.020
ELENCL= 1775.19 ELENCR= 1775.56

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1775.12 ELREA= 1775.56

300.000	6.16	1773.08	.00	.00	1774.61	1.53	.74	.00	1775.12
6300.0	.0	6300.0	.0	.0	634.9	.0	131.6	28.1	1775.56
.24	.00	9.92	.00	.000	.015	.000	.000	1766.92	1025.54
.001032	103.	103.	99.	0	0	0	.00	103.02	1128.56

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 310.000									
310.000	5.24	1773.02	1772.67	.00	1774.82	1.80	.13	.08	1775.68
6300.0	.0	6300.0	.0	.0	584.9	.0	133.0	28.4	1775.77
.25	.00	10.77	.00	.000	.015	.000	.000	1767.78	1031.30
.001633	103.	100.	106.	2	15	0	.00	131.04	1162.34
*SECNO 320.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
320.000	6.59	1775.83	1775.83	.00	1778.13	2.30	1.15	.15	1778.00
6300.0	.0	6300.0	.0	.0	517.7	.0	139.2	29.7	1778.00
.26	.00	12.17	.00	.000	.020	.000	.000	1769.24	1031.46
.003649	490.	489.	488.	0	11	0	.00	114.58	1146.04
*SECNO 330.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
330.000	7.07	1778.86	1778.86	.00	1781.22	2.35	1.82	.02	1780.94
6300.0	.0	6300.0	.0	.0	511.8	.0	145.1	31.0	1781.40
.27	.00	12.31	.00	.000	.020	.000	.000	1771.79	1037.34
.003649	501.	500.	501.	0	8	0	.00	110.82	1148.16
*SECNO 340.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
340.000	7.48	1781.85	1781.85	.00	1784.18	2.33	1.82	.00	1782.39
6300.0	.0	6300.0	.0	.0	514.5	.0	151.0	32.3	1782.00
.28	.00	12.24	.00	.000	.020	.000	.000	1774.37	1003.10
.003670	496.	496.	496.	0	8	0	.00	112.87	1115.97
*SECNO 350.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
350.000	7.59	1783.84	1783.84	.00	1786.34	2.50	1.58	.05	1787.10
6300.0	.0	6300.0	.0	.0	496.9	.0	156.1	33.4	1784.00
.29	.00	12.68	.00	.000	.020	.000	.000	1776.25	1055.14
.003560	460.	437.	420.	0	5	0	.00	99.87	1155.01

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 360.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1014.1 1129.6 TYPE= 1 TARGET= 115.500
ELENCL= 1792.00 ELENCR= 1792.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1792.00 ELREA= 1792.00

360.000	6.39	1786.06	1786.06	.00	1788.58	2.51	1.13	.01	1792.00
6300.0	.0	6300.0	.0	.0	495.1	.0	159.6	34.1	1792.00
.30	.00	12.72	.00	.000	.020	.000	.000	1779.67	1027.81
.003601	342.	314.	294.	0	15	0	.00	100.08	1127.89

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
.00	1.56	2.60	150.00	80.00	.00	943.00	1.50	1781.68	1779.67

*SECNO 370.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 1790.131 ELLC= 1791.680 POWSE= 1786.061 ELTRD= 1803.160

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 1803.16 MAX ELLC= 1791.68

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1019.9 1180.4 TYPE= 1 TARGET= 160.500
ELENCL= 1800.00 ELENCR= 1800.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1796.00 ELREA= 1800.00

370.000	6.08	1787.76	1787.76	.00	1790.11	2.35	.84	.02	1796.00
6300.0	.0	6300.0	.0	.0	512.6	.0	162.3	34.6	1800.00
.30	.00	12.29	.00	.000	.020	.000	.000	1781.68	1045.12
.003601	188.	232.	273.	0	15	0	.00	110.15	1155.27

*SECNO 380.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1091.3 1151.3 TYPE= 1 TARGET= 60.090
ELENCL= 1794.00 ELENCR= 1794.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1792.75 ELREA= 1794.00

380.000	7.42	1793.10	1793.10	.00	1796.62	3.52	.63	.35	1792.75
6300.0	.0	6300.0	.0	.0	418.2	.0	164.1	35.0	1794.00
.31	.00	15.06	.00	.000	.020	.000	.000	1785.68	1091.25
.003753	174.	171.	176.	0	11	0	.00	60.09	1151.34

*SECNO 390.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1045.2 1103.4 TYPE= 1 TARGET= 58.300
ELENCL= 1797.00 ELENCR= 1797.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1794.81 ELREA= 1797.00

390.000	7.72	1794.92	1794.92	.00	1798.52	3.60	1.58	.02	1794.81
6300.0	.0	6300.0	.0	.0	413.7	.0	168.2	35.6	1797.00
.31	.00	15.23	.00	.000	.020	.000	.000	1787.20	1045.15
.003749	421.	421.	420.	0	8	0	.00	58.10	1103.25

*SECNO 400.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

70 ENCROACHMENT STATIONS= 1042.3 1103.7 TYPE= 1 TARGET= 61.390
LENCL= 1797.00 ELENCR= 1797.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1796.25 ELREA= 1797.00

400.000	7.54	1796.14	1796.14	.00	1799.60	3.46	.80	.01	1796.25
6300.0	.0	6300.0	.0	.0	421.9	.0	170.2	35.8	1797.00
.32	.00	14.93	.00	.000	.020	.000	.000	1788.60	1042.37
.003696	216.	216.	218.	0	8	0	.00	60.99	1103.36

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 410.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

410.000	8.94	1798.24	1798.24	.00	1801.57	3.33	.78	.01	1797.20
6300.0	28.9	6271.1	.0	11.7	427.1	.0	172.4	36.2	1798.24
.32	2.46	14.68	.00	.030	.020	.000	.000	1789.30	1025.06
.003361	237.	223.	213.	0	12	0	.00	75.96	1101.01

*SECNO 420.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

420.000	9.85	1800.71	1800.71	.00	1803.49	2.78	.62	.06	1798.49
6300.0	98.3	6149.1	52.6	30.3	454.1	32.8	174.8	36.8	1799.34
.33	3.24	13.54	1.60	.030	.020	.030	.000	1790.86	1126.45
.002436	228.	218.	213.	0	8	0	.00	149.83	1276.28

*SECNO 430.000

01 HV CHANGED MORE THAN HVINS

185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1034.8 1072.5 TYPE= 1 TARGET= 37.750
ELENCL= 1805.00 ELENCR= 1805.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1804.31 ELREA= 1805.00

430.000	9.52	1802.81	1802.81	.00	1807.58	4.77	.56	.60	1804.31
6300.0	.0	6300.0	0	.0	359.3	.0	177.1	37.2	1805.00

.33	.00	17.53	.00	.000	.015	.000	.000	1793.29	1034.79
.002676	228.	221.	219.	0	8	0	.00	37.75	1072.54

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1801.33 , NOT 1802.81 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.56	2.60	78.00	37.75	1.75	246.00	.00	1794.30	1793.29

*SECNO 440.000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1818.70	1811.23	.00	2706.	3603.	246.	252.	1801.30	1802.38	78.

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3710 WSEL ASSUMED BASED ON MIN DIFF
3693 PROBABLE MINIMUM SPECIFIC ENERGY

3470 ENCROACHMENT STATIONS= 1048.1 1085.9 TYPE= 1 TARGET= 37.750
ELENCL= 1805.00 ELENCR= 1805.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1803.75 ELREA= 1805.00

440.000	9.55	1803.85	1803.80	.00	1808.59	4.74	.53	-.10	1803.75
6300.0	.0	6300.0	.0	.0	360.4	.0	178.7	37.4	1805.00
.33	.00	17.48	.00	.000	.015	.000	.000	1794.30	1048.13
.002647	183.	197.	206.	20	5	3	.00	37.75	1085.88

ECNO 450.000
280 CROSS SECTION 450.00 EXTENDED 1.94 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1056.9 1133.4 TYPE= 1 TARGET= 76.550
ELENCL= 1809.00 ELENCR= 1809.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1804.96 ELREA= 1809.00

450.000	12.84	1808.34	1804.77	.00	1809.41	1.08	.46	.37	1804.96
5800.0	.0	5800.0	.0	.0	696.1	.0	180.7	37.6	1809.00
.34	.00	8.33	.00	.000	.040	.000	.000	1795.50	1056.87
.002944	163.	163.	162.	4	8	0	.00	76.55	1133.42

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 460.000
3280 CROSS SECTION 460.00 EXTENDED 1.28 FEET

3470 ENCROACHMENT STATIONS= 1048.2 1141.8 TYPE= 1 TARGET= 93.660
ELENCL= 1810.00 ELENCR= 1810.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1807.55 ELREA= 1810.00

460.000	11.72	1809.29	1806.55	.00	1810.35	1.06	.93	.00	1807.55
5800.0	.0	5800.0	.0	.0	702.3	.0	185.2	38.2	1810.00
.35	.00	8.26	.00	.000	.040	.000	.000	1797.57	1048.18
.003634	282.	285.	290.	2	19	0	.00	93.66	1141.84

ECNO 470.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1035.4 1104.6 TYPE= 1 TARGET= 69.170
ELENCL= 1812.00 ELENCR= 1812.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1811.30 ELREA= 1812.00

470.000	10.99	1810.29	1810.29	.00	1813.45	3.16	1.75	.63	1811.30
5800.0	.0	5800.0	.0	.0	406.6	.0	188.7	38.7	1812.00
.35	.00	14.27	.00	.000	.040	.000	.000	1799.30	1038.28
.013868	277.	275.	273.	0	11	0	.00	64.43	1102.71

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.56	2.60	100.00	20.00	.00	288.00	2.00	1799.67	1799.29

*SECNO 480.000
3280 CROSS SECTION 480.00 EXTENDED 4.18 FEET

3301 HV CHANGED MORE THAN HVINS

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.10

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1820.11	1813.45	.00	1830.	4005.	288.	305.	1808.00	1811.30	100.

3470 ENCROACHMENT STATIONS= 1050.0 1121.9 TYPE= 1 TARGET= 71.960
ELENCL= 1815.00 ELENCR= 1815.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1811.06 ELREA= 1815.00

480.000	14.15	1813.82	.00	.00	1814.97	1.15	1.53	.00	1811.06
5800.0	.0	5800.0	.0	.0	672.6	.0	189.1	38.7	1815.00
.35	.00	8.62	.00	.000	.040	.000	.000	1799.67	1049.96
.003157	29.	29.	29.	3	0	2	.00	71.96	1121.92

*SECNO 490.000
3280 CROSS SECTION 490.00 EXTENDED 2.62 FEET

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .63

3470 ENCROACHMENT STATIONS= 1050.0 1127.6 TYPE= 1 TARGET= 77.640
ELENCL= 1816.00 ELENCR= 1816.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1815.04 ELREA= 1816.00

490.000	11.54	1815.20	1813.93	.00	1817.13	1.93	1.93	.23	1815.04
5800.0	.0	5800.0	.0	.0	519.9	.0	194.7	39.4	1816.00
.36	.05	11.16	.00	.025	.040	.000	.000	1803.66	1050.00
.007968	421.	405.	376.	3	19	0	.00	77.64	1127.64

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 500.000
3280 CROSS SECTION 500.00 EXTENDED .67 FEET

3470 ENCROACHMENT STATIONS= 1035.6 1117.1 TYPE= 1 TARGET= 81.530
ELENCL= 1821.00 ELENCR= 1821.00

95 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1820.00 ELREA= 1821.00

500.000	11.50	1819.00	1817.86	.00	1821.00	2.00	3.85	.02	1820.00
5800.0	.0	5800.0	.0	.0	511.4	.0	200.2	40.3	1821.00
.38	.00	11.34	.00	.000	.040	.000	.000	1807.50	1037.67
.008504	476.	468.	455.	3	11	0	.00	79.43	1117.10

*SECNO 510.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

510.000	11.75	1822.04	1822.04	.00	1823.68	1.64	2.10	.04	1821.10

5800.0	48.7	5326.1	425.2	18.2	500.3	96.3	205.5	41.6	1820.60
.39	2.67	10.65	4.42	.020	.030	.020	.000	1810.29	1013.43
.003383	411.	413.	404.	0	8	0	.00	205.18	1218.61

*SECNO 520.000

520.000	9.13	1823.95	1822.70	.00	1825.46	1.51	1.77	.01	1828.53
5800.0	.0	5800.0	.0	.0	588.5	.0	212.1	43.3	1829.41
.40	.00	9.86	.00	.000	.030	.000	.000	1814.82	1038.59
.004091	495.	477.	472.	3	14	0	.00	105.06	1143.65

*SECNO 530.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

530.000	9.16	1826.78	1826.78	.00	1829.24	2.45	2.26	.28	1831.69
5800.0	.0	5800.0	.0	.0	461.5	.0	216.9	44.2	1830.93
.41	.00	12.57	.00	.000	.030	.000	.000	1817.62	1029.35
.008341	372.	399.	424.	0	5	0	.00	95.65	1125.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 540.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

540.000	8.31	1831.76	1831.76	.00	1834.43	2.67	4.08	.07	1834.90
5800.0	.0	5800.0	.0	.0	442.1	.0	222.0	45.2	1835.51
.42	.00	13.12	.00	.000	.030	.000	.000	1823.45	1027.12
.008330	460.	490.	523.	0	11	0	.00	84.49	1111.61

*SECNO 550.000
7185 MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

550.000	10.00	1836.66	1836.66	.00	1839.20	2.54	3.86	.01	1839.32
5800.0	.0	5800.0	.0	.0	453.2	.0	226.7	46.2	1838.31
.43	.00	12.80	.00	.000	.030	.000	.000	1826.66	1028.11
.008600	438.	456.	475.	0	11	0	.00	92.74	1120.84

*SECNO 560.000

560.000	11.65	1839.50	1839.24	.00	1841.81	2.31	2.59	.02	1845.43
5800.0	.0	5800.0	.0	.0	475.4	.0	230.2	46.9	1843.50
.44	.00	12.20	.00	.000	.030	.000	.000	1827.85	1029.17
.007179	332.	330.	327.	0	8	0	.00	90.56	1119.73

*SECNO 570.000

570.000	9.35	1841.04	1839.22	.00	1843.02	1.98	1.17	.03	1845.65
5800.0	.0	5800.0	.0	.0	514.1	.0	232.8	47.3	1847.00
.44	.00	11.28	.00	.000	.030	.000	.000	1831.69	1067.86
.003860	229.	228.	230.	2	14	0	.00	64.87	1132.73

*SECNO 580.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

580.000	6.94	1840.94	1840.94	.00	1844.13	3.18	.00	.36	1845.83
5800.0	.0	5800.0	.0	.0	405.1	.0	232.8	47.3	1847.09
.44	.00	14.32	.00	.000	.015	.000	.000	1834.00	1058.13
.002051	1.	1.	1.	0	15	0	.00	64.22	1122.35

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SECNO 590.000
.85 MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1031.2 1085.0 TYPE= 1 TARGET= 53.840
ELENCL= 1848.00 ELENCR= 1848.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1846.27 ELREA= 1848.00

590.000	7.09	1841.30	1841.30	.00	1844.88	3.58	.03	.12	1846.27
5800.0	.0	5800.0	.0	.0	381.8	.0	233.0	47.3	1848.00
.44	.00	15.19	.00	.000	.015	.000	.000	1834.21	1031.20
.002356	16.	16.	17.	0	8	0	.00	53.84	1085.04

..... ECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1839.99 , NOT 1841.30 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.56	2.60	60.00	53.84	3.84	400.00	.00	1835.13	1834.21

*SECNO 600.000
6840, FLOW IS BY WEIR AND LOW FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.51

3420 BRIDGE W.S.= 1844.25 BRIDGE VELOCITY= 12.07 CALCULATED CHANNEL AREA= 456.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1846.40	1846.51	2.94	0.	5781.	400.	400.	1843.13	1846.50	60.

3470 ENCROACHMENT STATIONS= 1081.8 1135.7 TYPE= 1 TARGET= 53.840
ELENCL= 1848.00 ELENCR= 1848.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1846.00 ELREA= 1848.00

600.000	9.34	1844.44	.00	.00	1846.51	2.07	1.63	.00	1846.00
5800.0	.0	5800.0	.0	.0	501.8	.0	233.9	47.4	1848.00
.44	.00	11.56	.00	.000	.015	.000	.000	1835.10	1081.85
.001031	93.	94.	95.	4	0	0	.00	53.84	1135.69

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

.SECNO 610.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1061.5 1207.5 TYPE= 1 TARGET= 146.060
ELENCL= 1853.00 ELENCR= 1853.00

610.000	9.68	1852.30	1852.30	.00	1854.80	2.50	.25	.13	1851.91
5800.0	2.2	5382.6	415.1	2.1	410.1	104.7	236.4	47.9	1849.56
.45	1.05	13.13	3.97	.020	.015	.020	.000	1842.62	1073.26
.001287	231.	215.	202.	0	8	0	.00	131.09	1204.36

*SECNO 620.000

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

620.000	9.83	1855.31	1855.31	.00	1857.66	2.35	.26	.02	1855.40
5800.0	.0	5322.5	477.4	.2	416.2	125.6	239.0	48.5	1852.46
.45	.24	12.79	3.80	.020	.015	.020	.000	1845.48	1021.74
.001208	224.	212.	202.	0	5	0	.00	141.80	1170.30

*SECNO 630.000
3280 CROSS SECTION 630.00 EXTENDED .66 FEET

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

630.000	9.56	1857.66	1857.66	.00	1859.80	2.14	.25	.02	1855.06
5800.0	121.6	5170.6	507.8	32.3	417.9	138.7	241.8	49.2	1855.00
.46	3.77	12.37	3.66	.020	.015	.020	.000	1848.10	1012.01
.001093	229.	221.	214.	0	8	0	.00	153.98	1165.99

CCHV= .100 CEHV= .300
*SECNO 640.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

640.000	9.28	1860.65	1860.65	.00	1863.91	3.25	.35	.33	1858.09
5800.0	146.1	5653.9	.0	29.0	386.3	.0	244.8	49.9	1861.23
.46	5.04	14.64	.00	.020	.015	.000	.000	1851.37	1012.10
.001695	252.	258.	262.	0	8	0	.00	66.64	1078.73

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 650.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1035.3 1088.0 TYPE= 1 TARGET= 52.670
ELENCL= 1867.00 ELENCR= 1867.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1866.17 ELREA= 1867.00

650.000	7.20	1861.00	1861.00	.00	1864.63	3.64	.42	.12	1866.17
5800.0	.0	5800.0	.0	.0	379.0	.0	246.7	50.2	1867.00
.47	.00	15.30	.00	.000	.015	.000	.000	1853.80	1035.35
.002370	197.	211.	226.	0	15	0	.00	52.67	1088.02

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1859.85 , NOT 1861.00 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.56	2.60	150.00	52.67	2.67	400.00	.00	1856.17	1853.80

*SECNO 660.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.45

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1862.46 BRIDGE VELOCITY= 15.52 CALCULATED CHANNEL AREA= 314.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1866.09	1867.56	.00	0.	5800.	400.	400.	1864.17	1869.17	0.

3470 ENCROACHMENT STATIONS= 1077.3 1129.9 TYPE= 1 TARGET= 52.670
ELENCL= 1870.00 ELENCR= 1870.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1869.67 ELREA= 1870.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

660.000	9.24	1865.34	.00	.00	1867.56	2.22	2.93	.00	1869.67
5800.0	.0	5800.0	.0	.0	484.6	.0	248.6	50.4	1870.00
.47	.00	11.97	.00	.000	.015	.000	.000	1856.10	1077.26
.001128	191.	192.	191.	0	0	0	.00	52.67	1129.93

*SECNO 670.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

670.000	7.49	1866.49	1866.49	.00	1869.36	2.87	.95	.19	1874.27
5500.0	.0	5500.0	.0	.0	404.4	.0	253.2	51.1	1874.29
.48	.00	13.60	.00	.000	.025	.000	.000	1859.00	1084.90
.005530	476.	453.	439.	0	15	0	.00	71.51	1156.41

*SECNO 680.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

680.000	9.22	1871.82	1871.82	.00	1874.94	3.13	2.54	.08	1880.87
5500.0	.0	5500.0	.0	.0	387.6	.0	257.4	51.8	1878.44
.49	.00	14.19	.00	.000	.025	.000	.000	1862.60	1051.81
.005493	479.	462.	448.	0	11	0	.00	63.15	1114.96

*SECNO 690.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.42

3470 ENCROACHMENT STATIONS= 1057.3 1141.3 TYPE= 1 TARGET= 84.000
ELENCL= 1894.00 ELENCR= 1894.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1877.00 ELREA= 1894.00

690.000	8.87	1874.87	1873.33	.00	1876.66	1.79	1.59	.13	1877.00
5500.0	.0	5500.0	.0	.0	512.4	.0	261.8	52.5	1894.00

.50	.00	10.73	.00	.000	.025	.000	.000	1866.00	1061.55
.002727	408.	423.	434.	3	15	0	.00	75.49	1137.05

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.56	2.60	90.00	40.00	.00	1240.00	2.00	1866.00	1866.00

*SECNO 700.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 1876.664 ELLC= 1886.000 POWSE= 1874.875 ELTRD= 1894.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 1894.00 MAX ELLC= 1886.00

700.000	9.60	1875.60	1873.33	.00	1877.06	1.45	.36	.03	1886.00
5500.0	.0	5500.0	.0	.0	568.2	.0	263.7	52.7	1886.00
.51	.00	9.68	.00	.000	.025	.000	.000	1866.00	1014.28
.002037	133.	153.	173.	3	19	0	.00	78.39	1092.68

*SECNO 710.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

710.000	9.42	1885.92	1885.92	.00	1888.98	3.06	1.33	.48	1887.65
5500.0	.0	5500.0	.0	.0	391.6	.0	268.4	53.4	1894.90
.52	.00	14.04	.00	.000	.025	.000	.000	1876.50	1059.17
.005417	416.	425.	467.	0	8	0	.00	64.41	1123.58

SECNO 720.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

720.000	7.74	1889.33	1889.33	.00	1892.11	2.78	2.73	.03	1890.30
5500.0	.0	5500.0	.0	.0	411.0	.0	273.0	54.2	1897.50
.53	.00	13.38	.00	.000	.025	.000	.000	1881.59	1033.38
.005533	499.	498.	495.	0	15	0	.00	75.25	1108.63

*SECNO 730.000

3301 HV CHANGED MORE THAN HVINS

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

730.000	7.69	1892.79	1892.79	.00	1894.82	2.02	2.47	.08	1892.66
5500.0	1557.3	3942.7	.0	167.8	324.5	.0	278.0	55.3	1900.12
.54	9.28	12.15	.00	.025	.025	.000	.000	1885.10	989.10
.004791	485.	481.	473.	0	5	0	.00	127.21	1116.31

*SECNO 740.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

740.000	8.50	1897.85	1897.85	.00	1900.93	3.08	2.53	.32	1900.00
5500.0	.0	5500.0	.0	.0	390.7	.0	283.0	56.4	1905.14
.55	.00	14.08	.00	.000	.025	.000	.000	1889.35	1047.11
.005489	502.	492.	484.	0	8	0	.00	64.13	1111.24

SECNO 750.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

750.000	8.37	1901.81	1901.81	.00	1904.64	2.83	2.17	.02	1903.79
5500.0	.0	5500.0	.0	.0	407.5	.0	286.6	57.0	1919.42
.56	.00	13.50	.00	.000	.025	.000	.000	1893.44	1049.07
.005581	362.	392.	431.	0	5	0	.00	74.23	1123.31

*SECNO 760.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

760.000	7.79	1906.02	1906.02	.00	1908.81	2.79	2.40	.00	1906.70
5500.0	.0	5500.0	.0	.0	410.3	.0	290.6	57.8	1915.90
.56	.00	13.40	.00	.000	.025	.000	.000	1898.23	1036.86
.005630	410.	428.	458.	0	9	0	.00	76.05	1112.91

*SECNO 770.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

770.000	6.57	1909.77	1909.77	.00	1912.24	2.46	2.45	.03	1914.00
5500.0	.0	5500.0	.0	.0	436.8	.0	294.8	58.6	1913.10
.57	.00	12.59	.00	.000	.025	.000	.000	1903.20	1030.05
.005652	457.	435.	419.	0	15	0	.00	90.26	1120.32

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 780.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1058.7 1114.1 TYPE= 1 TARGET= 55.330
ELENCL= 1916.50 ELENCR= 1916.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1914.90 ELREA= 1916.50

780.000	6.72	1910.50	1910.50	.00	1913.90	3.40	.17	.28	1914.90
5500.0	.0	5500.0	.0	.0	371.9	.0	295.3	58.7	1916.50
.57	.00	14.79	.00	.000	.015	.000	.000	1903.78	1058.72
.002347	53.	49.	49.	0	8	0	.00	55.33	1114.05

SPECIAL BRIDGE

27 DOWNSTREAM ELEV IS 1909.08 , NOT 1910.50 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.60	80.00	55.33	5.33	400.00	.00	1905.12	1903.78

*SECNO 790.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.72

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1911.67 BRIDGE VELOCITY= 15.25 CALCULATED CHANNEL AREA= 327.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1915.08	1916.39	.00	0.	5500.	400.	400.	1913.12	1917.12	0.

3470 ENCROACHMENT STATIONS= 1028.6 1083.9 TYPE= 1 TARGET= 55.330
ELENCL= 1916.00 ELENCR= 1916.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1914.87 ELREA= 1916.00

790.000	9.63	1914.73	.00	.00	1916.39	1.66	2.49	.00	1914.87
5500.0	.0	5500.0	.0	.0	532.3	.0	296.4	58.8	1916.00
.58	.00	10.33	.00	.000	.015	.000	.000	1905.10	1028.58
.000791	108.	108.	108.	0	0	0	.00	55.33	1083.91

SECNO 800.000
280 CROSS SECTION 800.00 EXTENDED .05 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .53

3470 ENCROACHMENT STATIONS= 1000.0 1094.5 TYPE= 1 TARGET= 94.470
ELENCL= 1915.50 ELENCR= 1915.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1914.21 ELREA= 1915.50

800.000	10.31	1915.17	1912.90	.00	1916.55	1.38	.13	.03	1914.21
5500.0	17.7	5482.3	.0	9.6	581.3	.0	297.6	59.0	1915.50
.58	1.84	9.43	.00	.035	.030	.000	.000	1904.86	1000.00
.002830	101.	96.	88.	2	15	0	.00	94.47	1094.47

CCHV= .100 CEHV= .300
*SECNO 810.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.02

810.000	11.29	1916.65	1914.06	.00	1916.89	.24	.23	.11	1911.33
5500.0	1697.2	2353.7	1449.1	580.4	471.5	495.9	302.2	60.0	1911.05
.59	2.92	4.99	2.92	.035	.030	.035	.000	1905.36	995.44
.000695	222.	185.	145.	3	9	0	.00	353.45	1348.89

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THIS RUN EXECUTED 16DEC98 14:05:16

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HEC-2 WATER SURFACE PROFILES
Version 4.6.0; February 1991
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

FLOODPLAIN DELINEATION
SUMMARY PRINTOUT TABLE 100

	SECNO	EGLWC	ELLC	EGPRS	ELTRD	QPR	QWEIR	CLASS	H3	DEPTH	CWSEL	VCH	EG
*	130.000	1730.30	1727.53	1730.66	1731.43	6400.00	.00	10.00	.00	6.99	1729.52	8.55	1730.66
	300.000	1774.61	1772.92	1774.19	1776.92	6300.00	.00	2.00	.00	6.16	1773.08	9.92	1774.61
*	370.000	1790.13	1791.68	.00	1803.16	6300.00	.00	59.00	.00	6.08	1787.76	12.29	1790.11
*	440.000	1811.23	1801.30	1818.70	1802.38	3603.15	2705.88	30.00	.00	9.55	1803.85	17.48	1808.59
*	480.000	1813.45	1808.00	1820.11	1811.30	4005.47	1830.21	30.00	.00	14.15	1813.82	8.62	1814.97
*	600.000	1846.51	1843.13	1846.40	1846.50	5780.91	.16	15.00	2.94	9.34	1844.44	11.56	1846.51
*	660.000	1867.56	1864.17	1866.09	1869.17	5800.00	.00	2.00	.00	9.24	1865.34	11.97	1867.56
	700.000	1876.66	1886.00	.00	1894.00	5500.00	.00	59.00	.00	9.60	1875.60	9.68	1877.06
*	790.000	1916.39	1913.12	1915.08	1917.12	5500.00	.00	2.00	.00	9.63	1914.73	10.33	1916.39

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FLOODPLAIN DELINEATION
SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10**KS	VCH	AREA	.01K
	10.000	.00	.00	.00	1700.33	6400.00	1708.70	1707.40	1710.19	40.17	9.77	654.99	1009.81
	20.000	488.53	.00	.00	1703.12	6400.00	1710.73	1710.04	1712.55	54.16	10.82	591.46	869.66
	30.000	498.03	.00	.00	1705.85	6400.00	1713.36	1712.99	1715.48	60.14	11.71	555.76	825.31
	40.000	491.57	.00	.00	1707.20	6400.00	1716.27	1715.79	1718.18	49.47	11.26	605.53	909.92
*	50.000	305.60	.00	.00	1708.90	6400.00	1718.36	1716.06	1719.32	25.10	7.85	815.17	1277.56
*	60.000	499.27	.00	.00	1709.94	6400.00	1719.67	1717.29	1720.20	11.93	6.46	1304.23	1852.60
*	70.000	497.95	.00	.00	1712.00	6400.00	1719.53	1719.53	1722.12	79.46	12.92	495.38	717.97
*	80.000	470.68	.00	.00	1714.38	6400.00	1723.21	1721.50	1724.56	33.39	9.33	685.96	1107.62
	90.000	482.19	.00	.00	1715.19	6400.00	1724.77	1723.80	1726.63	47.85	10.93	586.21	925.18
	100.000	295.13	.00	.00	1718.70	6400.00	1726.42	1724.67	1727.81	32.04	9.49	674.45	1130.66
*	110.000	25.69	.00	.00	1720.50	6400.00	1725.79	1725.79	1728.22	20.26	12.50	512.01	1421.91
*	120.000	90.11	.00	.00	1721.90	6400.00	1726.69	1726.69	1729.11	22.07	12.49	512.45	1362.37
*	130.000	119.69	1731.43	1727.53	1722.53	6400.00	1729.52	.00	1730.66	6.45	8.55	748.45	2519.99
	140.000	64.14	.00	.00	1722.60	6400.00	1729.45	1727.93	1730.75	8.08	9.16	698.74	2252.04

*	150.000	489.94	.00	.00	1723.53	6300.00	1729.99	1729.99	1732.17	37.37	11.84	532.17	1030.53
	160.000	501.51	.00	.00	1725.61	6300.00	1732.11	1731.56	1733.75	25.37	10.28	612.98	1250.86
	170.000	487.26	.00	.00	1727.30	6300.00	1733.34	1733.34	1735.45	37.59	11.65	540.60	1027.52
	180.000	491.83	.00	.00	1729.60	6300.00	1735.21	1735.03	1737.18	32.61	11.26	559.45	1103.29
*	190.000	497.74	.00	.00	1732.79	6300.00	1739.49	1739.49	1741.88	36.27	12.40	508.15	1046.09
*	200.000	495.37	.00	.00	1736.70	6300.00	1742.86	1742.86	1745.31	36.03	12.55	501.99	1049.50
*	210.000	500.38	.00	.00	1737.52	6300.00	1746.83	1746.83	1749.68	35.28	13.54	465.25	1060.72
*	220.000	476.72	.00	.00	1743.96	6300.00	1751.93	1751.93	1754.61	35.78	13.15	479.23	1053.22
*	230.000	494.76	.00	.00	1750.12	6300.00	1758.40	1758.40	1761.19	35.14	13.39	470.48	1062.73
*	240.000	492.00	.00	.00	1757.43	6300.00	1762.61	1762.61	1764.88	36.68	12.07	521.97	1040.16

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	250.000	58.60	.00	.00	1758.00	6300.00	1763.05	1763.05	1765.39	21.01	12.28	513.16	1374.32
*	260.000	1.00	.00	.00	1762.00	6300.00	1766.97	1766.97	1769.12	21.96	11.75	536.10	1344.52
*	270.000	21.92	.00	.00	1762.00	6300.00	1766.86	1766.86	1769.28	21.56	12.48	504.71	1356.90
*	280.000	1.00	.00	.00	1766.00	6300.00	1770.89	1770.89	1773.30	21.39	12.45	505.92	1362.04
*	290.000	14.95	.00	.00	1766.55	6300.00	1771.41	1771.41	1773.87	22.08	12.58	500.64	1340.65
*	300.000	102.75	1776.92	1772.92	1766.92	6300.00	1773.08	.00	1774.61	10.32	9.92	634.90	1960.95
	310.000	100.28	.00	.00	1767.78	6300.00	1773.02	1772.67	1774.82	16.33	10.77	584.86	1558.77
*	320.000	489.10	.00	.00	1769.24	6300.00	1775.83	1775.83	1778.13	36.49	12.17	517.70	1042.95
*	330.000	500.10	.00	.00	1771.79	6300.00	1778.86	1778.86	1781.22	36.49	12.31	511.82	1042.99
*	340.000	496.21	.00	.00	1774.37	6300.00	1781.85	1781.85	1784.18	36.70	12.24	514.52	1039.97
	350.000	436.71	.00	.00	1776.25	6300.00	1783.84	1783.84	1786.34	35.60	12.68	496.89	1055.87
*	360.000	314.29	.00	.00	1779.67	6300.00	1786.06	1786.06	1788.58	36.01	12.72	495.11	1049.91
*	370.000	232.15	1803.16	1791.68	1781.68	6300.00	1787.76	1787.76	1790.11	36.01	12.29	512.65	1049.85
*	380.000	170.96	.00	.00	1785.68	6300.00	1793.10	1793.10	1796.62	37.53	15.06	418.21	1028.38
*	390.000	420.90	.00	.00	1787.20	6300.00	1794.92	1794.92	1798.52	37.49	15.23	413.68	1028.90
*	400.000	216.12	.00	.00	1788.60	6300.00	1796.14	1796.14	1799.60	36.96	14.93	421.85	1036.24
*	410.000	222.64	.00	.00	1789.30	6300.00	1798.24	1798.24	1801.57	33.61	14.68	438.82	1086.66
*	420.000	218.15	.00	.00	1790.86	6300.00	1800.71	1800.71	1803.49	24.36	13.54	517.22	1276.55
*	430.000	221.27	.00	.00	1793.29	6300.00	1802.81	1802.81	1807.58	26.76	17.53	359.32	1217.88
*	440.000	197.38	1802.38	1801.30	1794.30	6300.00	1803.85	1803.80	1808.59	26.47	17.48	360.40	1224.55
	450.000	163.47	.00	.00	1795.50	5800.00	1808.34	1804.77	1809.41	29.44	8.33	696.14	1068.91
	460.000	285.08	.00	.00	1797.57	5800.00	1809.29	1806.55	1810.35	36.34	8.26	702.34	962.09
*	470.000	275.07	.00	.00	1799.30	5800.00	1810.29	1810.29	1813.45	138.68	14.27	406.58	492.51
*	480.000	29.16	1811.30	1808.00	1799.67	5800.00	1813.82	.00	1814.97	31.57	8.62	672.62	1032.30
*	490.000	404.91	.00	.00	1803.66	5800.00	1815.20	1813.93	1817.13	79.68	11.16	519.90	649.77
	500.000	467.90	.00	.00	1807.50	5800.00	1819.00	1817.86	1821.00	85.04	11.34	511.37	628.96

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	510.000	413.47	.00	.00	1810.29	5800.00	1822.04	1822.04	1823.68	33.83	10.65	614.81	997.24
	520.000	477.37	.00	.00	1814.82	5800.00	1823.95	1822.70	1825.46	40.91	9.86	588.48	906.77
*	530.000	399.20	.00	.00	1817.62	5800.00	1826.78	1826.78	1829.24	83.41	12.57	461.47	635.06
	540.000	489.72	.00	.00	1823.45	5800.00	1831.76	1831.76	1834.43	83.30	13.12	442.12	635.50
*	550.000	456.26	.00	.00	1826.66	5800.00	1836.66	1836.66	1839.20	86.00	12.80	453.18	625.44
	560.000	330.24	.00	.00	1827.85	5800.00	1839.50	1839.24	1841.81	71.79	12.20	475.41	684.51
	570.000	228.38	.00	.00	1831.69	5800.00	1841.04	1839.22	1843.02	38.60	11.28	514.15	933.54
*	580.000	1.00	.00	.00	1834.00	5800.00	1840.94	1840.94	1844.13	20.51	14.32	405.06	1280.79
*	590.000	15.77	.00	.00	1834.21	5800.00	1841.30	1841.30	1844.88	23.56	15.19	381.84	1194.84

*	600.000	93.51	1846.50	1843.13	1835.10	5800.00	1844.44	.00	1846.51	10.31	11.56	501.84	1806.12
	610.000	215.38	.00	.00	1842.62	5800.00	1852.30	1852.30	1854.80	12.87	13.13	516.84	1616.89
*	620.000	212.31	.00	.00	1845.48	5800.00	1855.31	1855.31	1857.66	12.08	12.79	541.92	1668.78
*	630.000	221.03	.00	.00	1848.10	5800.00	1857.66	1857.66	1859.80	10.93	12.37	588.88	1754.17
*	640.000	258.21	.00	.00	1851.37	5800.00	1860.65	1860.65	1863.91	16.95	14.64	415.21	1408.60
*	650.000	211.31	.00	.00	1853.80	5800.00	1861.00	1861.00	1864.63	23.70	15.30	378.99	1191.31
*	660.000	191.78	1869.17	1864.17	1856.10	5800.00	1865.34	.00	1867.56	11.28	11.97	484.63	1726.55
*	670.000	452.82	.00	.00	1859.00	5500.00	1866.49	1866.49	1869.36	55.30	13.60	404.44	739.57
*	680.000	461.54	.00	.00	1862.60	5500.00	1871.82	1871.82	1874.94	54.93	14.19	387.58	742.12
*	690.000	422.90	.00	.00	1866.00	5500.00	1874.87	1873.33	1876.66	27.27	10.73	512.41	1053.31
	700.000	153.08	1894.00	1886.00	1866.00	5500.00	1875.60	1873.33	1877.06	20.37	9.68	568.21	1218.51
*	710.000	424.60	.00	.00	1876.50	5500.00	1885.92	1885.92	1888.98	54.17	14.04	391.63	747.29
*	720.000	498.02	.00	.00	1881.59	5500.00	1889.33	1889.33	1892.11	55.33	13.38	410.97	739.40
*	730.000	480.56	.00	.00	1885.10	5500.00	1892.79	1892.79	1894.82	47.91	12.15	492.26	794.59
*	740.000	492.38	.00	.00	1889.35	5500.00	1897.85	1897.85	1900.93	54.89	14.08	390.66	742.38
*	750.000	391.69	.00	.00	1893.44	5500.00	1901.81	1901.81	1904.64	55.81	13.50	407.50	736.20
*	760.000	428.24	.00	.00	1898.23	5500.00	1906.02	1906.02	1908.81	56.30	13.40	410.34	733.03

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	770.000	434.78	.00	.00	1903.20	5500.00	1909.77	1909.77	1912.24	56.52	12.59	436.79	731.56
*	780.000	49.44	.00	.00	1903.78	5500.00	1910.50	1910.50	1913.90	23.47	14.79	371.91	1135.21
	790.000	108.02	1917.12	1913.12	1905.10	5500.00	1914.73	.00	1916.39	7.91	10.33	532.29	1955.06
	800.000	95.80	.00	.00	1904.86	5500.00	1915.17	1912.90	1916.55	28.30	9.43	590.89	1033.90
*	810.000	185.09	.00	.00	1905.36	5500.00	1916.65	1914.06	1916.89	6.95	4.99	1547.86	2086.34

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FLOODPLAIN DELINEATION

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	10.000	6400.00	1708.70	.00	.00	3.70	119.45	.00
	20.000	6400.00	1710.73	.00	2.03	.00	114.06	488.53
	30.000	6400.00	1713.36	.00	2.63	.00	125.10	498.03
	40.000	6400.00	1716.27	.00	2.91	.00	154.35	491.57
*	50.000	6400.00	1718.36	.00	2.09	.00	142.96	305.60
*	60.000	6400.00	1719.67	.00	1.31	.00	396.87	499.27
*	70.000	6400.00	1719.53	.00	-.14	.00	97.17	497.95
*	80.000	6400.00	1723.21	.00	3.68	.00	115.23	470.68
	90.000	6400.00	1724.77	.00	1.56	.00	110.73	482.19
	100.000	6400.00	1726.42	.00	1.65	.00	104.36	295.13
*	110.000	6400.00	1725.79	.00	-.62	.00	106.34	25.69
*	120.000	6400.00	1726.69	.00	.90	.00	107.00	90.11
*	130.000	6400.00	1729.52	.00	2.83	.00	107.00	119.69
	140.000	6400.00	1729.45	.00	-.07	.00	115.91	64.14
	150.000	6300.00	1729.99	.00	.54	.00	124.87	489.94
	160.000	6300.00	1732.11	.00	2.12	.00	132.85	501.51
*	170.000	6300.00	1733.34	.00	1.23	.00	130.75	487.26
	180.000	6300.00	1735.21	.00	1.87	.00	127.87	491.83
*	190.000	6300.00	1739.49	.00	4.28	.00	108.37	497.74
*	200.000	6300.00	1742.86	.00	3.37	.00	104.30	495.37

*	210.000	6300.00	1746.83	.00	3.97	.00	83.71	500.38
	220.000	6300.00	1751.93	.00	5.10	.00	91.27	476.72
*	230.000	6300.00	1758.40	.00	6.47	.00	86.22	494.76
*	240.000	6300.00	1762.61	.00	4.21	.00	116.82	492.00

1
16DEC98 14:05:16 PAGE 46

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
•	250.000	6300.00	1763.05	.00	.43	.00	110.08	58.60
*	260.000	6300.00	1766.97	.00	3.93	.00	128.59	1.00
*	270.000	6300.00	1766.86	.00	-.12	.00	104.80	21.92
*	280.000	6300.00	1770.89	.00	4.03	.00	105.61	1.00
*	290.000	6300.00	1771.41	.00	.52	.00	102.93	14.95
*	300.000	6300.00	1773.08	.00	1.67	.00	103.02	102.75
	310.000	6300.00	1773.02	.00	-.06	.00	131.04	100.28
*	320.000	6300.00	1775.83	.00	2.81	.00	114.58	489.10
*	330.000	6300.00	1778.86	.00	3.04	.00	110.82	500.10
*	340.000	6300.00	1781.85	.00	2.99	.00	112.87	496.21
*	350.000	6300.00	1783.84	.00	1.99	.00	99.87	436.71
*	360.000	6300.00	1786.06	.00	2.22	.00	100.08	314.29
*	370.000	6300.00	1787.76	.00	1.70	.00	110.15	232.15
*	380.000	6300.00	1793.10	.00	5.34	.00	60.09	170.96
*	390.000	6300.00	1794.92	.00	1.82	.00	58.10	420.90
	400.000	6300.00	1796.14	.00	1.21	.00	60.99	216.12
	410.000	6300.00	1798.24	.00	2.10	.00	75.96	222.64
*	420.000	6300.00	1800.71	.00	2.47	.00	149.83	218.15
*	430.000	6300.00	1802.81	.00	2.10	.00	37.75	221.27
*	440.000	6300.00	1803.85	.00	1.04	.00	37.75	197.38
	450.000	5800.00	1808.34	.00	4.49	.00	76.55	163.47
	460.000	5800.00	1809.29	.00	.95	.00	93.66	285.08
*	470.000	5800.00	1810.29	.00	1.00	.00	64.43	275.07
*	480.000	5800.00	1813.82	.00	3.53	.00	71.96	29.16
*	490.000	5800.00	1815.20	.00	1.38	.00	77.64	404.91
	500.000	5800.00	1819.00	.00	3.81	.00	79.43	467.90

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	510.000	5800.00	1822.04	.00	3.03	.00	205.18	413.47
	520.000	5800.00	1823.95	.00	1.92	.00	105.06	477.37
*	530.000	5800.00	1826.78	.00	2.83	.00	95.65	399.20
*	540.000	5800.00	1831.76	.00	4.97	.00	84.49	489.72
*	550.000	5800.00	1836.66	.00	4.90	.00	92.74	456.26
	560.000	5800.00	1839.50	.00	2.85	.00	90.56	330.24
	570.000	5800.00	1841.04	.00	1.54	.00	64.87	228.38
*	580.000	5800.00	1840.94	.00	-.10	.00	64.22	1.00
	590.000	5800.00	1841.30	.00	.36	.00	53.84	15.77
	600.000	5800.00	1844.44	.00	3.13	.00	53.84	93.51
*	610.000	5800.00	1852.30	.00	7.87	.00	131.09	215.38
*	620.000	5800.00	1855.31	.00	3.01	.00	141.80	212.31
*	630.000	5800.00	1857.66	.00	2.34	.00	153.98	221.03
*	640.000	5800.00	1860.65	.00	3.00	.00	66.64	258.21

*	650.000	5800.00	1861.00	.00	.34	.00	52.67	211.31
	660.000	5800.00	1865.34	.00	4.34	.00	52.67	191.78
	670.000	5500.00	1866.49	.00	1.15	.00	71.51	452.82
*	680.000	5500.00	1871.82	.00	5.33	.00	63.15	461.54
*	690.000	5500.00	1874.87	.00	3.06	.00	75.49	422.90
	700.000	5500.00	1875.60	.00	.73	.00	78.39	153.08
*	710.000	5500.00	1885.92	.00	10.31	.00	64.41	424.60
*	720.000	5500.00	1889.33	.00	3.42	.00	75.25	498.02
*	730.000	5500.00	1892.79	.00	3.46	.00	127.21	480.56
*	740.000	5500.00	1897.85	.00	5.06	.00	64.13	492.38
*	750.000	5500.00	1901.81	.00	3.96	.00	74.23	391.69
*	760.000	5500.00	1906.02	.00	4.21	.00	76.05	428.24

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	770.000	5500.00	1909.77	.00	3.75	.00	90.26	434.78
*	780.000	5500.00	1910.50	.00	.73	.00	55.33	49.44
*	790.000	5500.00	1914.73	.00	4.23	.00	55.33	108.02
*	800.000	5500.00	1915.17	.00	.44	.00	94.47	95.80
*	810.000	5500.00	1916.65	.00	1.48	.00	353.45	185.09

MMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= 50.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 60.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 70.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 70.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

WARNING SECNO= 80.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO= 110.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 120.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 120.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 130.000 PROFILE= 1 HYDRAULIC JUMP D.S.
WARNING SECNO= 130.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO= 150.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

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 CAUTION SECNO=   440.000  PROFILE= 1  WSEL ASSUMED BASED ON MIN DIFF
 CAUTION SECNO=   440.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION SECNO=   440.000  PROFILE= 1  HYDRAULIC JUMP D.S.

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    16DEC98      14:05:16                                                    PAGE   51


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 CAUTION SECNO=   660.000  PROFILE= 1  HYDRAULIC JUMP D.S.
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   16DEC98      14:05:16                                                PAGE   52

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 CAUTION SECNO=    760.000  PROFILE=  1  MINIMUM SPECIFIC ENERGY

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 WARNING SECNO=    810.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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UPSTREAM OF STUDY LIMIT

Study Contractor: Nolte & Associates, Inc.

PROFILE AND MAPPING CONCURRENCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	U/S Study Limit Mapping Concurrence		Pg. 2
Las Vegas Wash	HEC-2 model output	Lvwash2.out	Pg. 3-end
Las Vegas Wash	HEC-2 model input	Lvwash2.dat	

Upstream of Charleston Blvd.

Location (related to Charleston Blvd.)	(a) Nolte	(b) Ensign & Buckley	(a)-(b) Delta
d/s bridge face	xs479.1 wsel=1736.4	xs38480 wsel=1736.95	-0.55'
u/s bridge face	xs480 wsel=1738.6	xs38580 wsel=1737.8	+0.8
32' upstream	xs481 wsel=1738.56		
50' upstream		xs38630 wsel=1737.78	+0.78

Nolte model: LV.DAT
Ensign & Buckley model: LVWASH2.DAT, HEC-2 model not dated

(a) The Nolte study is based on the James M. Montgomery Las Vegas Valley Flood Insurance Study Hydrology Report dated Sept. 1991.

(b) The Ensign & Buckley model should be started at Charleston Blvd with an elevation equal to one of the Nolte cross sections listed in the table above.

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1*************************************
*  HEC-2 WATER SURFACE PROFILES     *
*                                   *
   Version  4.6.2;  May 1991        *
*                                   *
*  RUN DATE    05OCT98    TIME  16:08:02  *
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*************************************
*  U.S. ARMY CORPS OF ENGINEERS     *
*  HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D       *
*  DAVIS, CALIFORNIA 95616-4687     *
*        (916) 756-1104             *
*************************************
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X     X  XXXXXXX   XXXXX          XXXXX
X     X  X        X     X        X     X
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  XXXXX
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX  XXXXX          XXXXXXX
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05OCT98 16:08:02 PAGE 1

THIS RUN EXECUTED 05OCT98 16:08:02

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************************************
HEC-2 WATER SURFACE PROFILES

Version  4.6.2;  May 1991
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T1      CITY OF LAS VEGAS LMMP
T2      PREPARED BY ENSIGN & BUCKLEY
T3      LAS VEGAS WASH
T4      FLOODLAIN ANALYSES
T5      FILE: LVWASH2.DAT
T6      INCLUDES REVISED CHANNEL BETWEEN STA. 55080 AND STA. 57200
T7      DATA FROM PECOS TERRACE GRADING PLANS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
                                              -1                            5993
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     -1                   -1

NC    .0800     .08000    .04000    .10000    .30000
X1   37300         8     1150.0    1286.0       .0       .0        .0
X3      10.                                                          .00       .00
GR  1736.0     1000.0    1736.00   1150.0    1724.00   1170.0    1722.60   1173.0    1722.60   1237.0
GR  1724.0     1240.0    1736.00   1286.0    1736.00   1470.0

NC    .0800     .08000    .05000    .10000    .30000
    NELLIS BOULEVARD BRIDGE
    CROSS SECTION DATA BETWEEN NELLIS AND CHARLESTON FROM JMM MAPPING
    PHOTO DATE 1986, SCALE: 1"=400', CONTOUR INTERVAL = 4'
SB   1.050     1.56      2.60    136.00     93.60     6.67    1185.00    2.000    1722.60   1722.60
X1   37350         8     1150.0    1286.0      50.0     50.0      50.0
X2       0.      .00         1.  1733.50    1737.40      .00                 .000                .000
X3      10.                                                          .00       .00
GR  1736.0     1000.0    1736.00   1150.0    1724.00   1171.0    1722.60   1173.0    1722.60   1237.0
GR  1724.0     1265.0    1736.00   1286.0    1736.00   1470.0

NC    .0800     .08000    .04000    .10000    .30000
X1   37500         8     1133.5    1267.0      150.0    150.0     150.0
GR  1736.2     1000.0    1736.17   1133.5    1724.17   1151.3    1722.77   1154.0    1722.77   1210.9
GR  1724.2     1213.6    1736.17   1267.0    1736.17   1418.3

X1   37690         9     1370.0    1470.0       190      190       190
GR  1740.0     1000.0    1740.00   1160.0    1736.00   1320.0    1736.00   1370.0    1728.00   1390.0
GR  1723.0     1410.0    1723.00   1440.0    1736.00   1470.0    1736.00   1830.0
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NC    .0800     .08000    .05500    .10000    .30000
X1   37890         9     1429.2    1545.2      200.0    200.0     200.0
GR  1740.7     1000.0    1740.70   1185.6    1736.70   1371.2    1736.70   1429.2    1728.70   1452.4
GR  1723.7     1475.6    1723.70   1510.4    1736.70   1545.2    1736.70   1962.8

NC    .0800     .08000    .05500    .10000    .30000
1    38080         9     1500.0    1630.0       190      190       190
X   1740.0     1000.0    1740.00   1450.0    1739.00   1500.0    1728.00   1530.0    1724.40   1535.0
GR  1724.4     1595.0    1728.00   1600.0    1739.00   1630.0    1740.00   2050.0

NC    .0800     .08000    .06000    .10000    .30000
X1   38280         9     1670.0    1844.2      200.0    200.0     200.0
GR  1740.3     1000.0    1740.30   1603.0    1739.30   1670.0    1728.30   1710.2    1724.70   1716.9
GR  1724.7     1797.3    1728.30   1804.0    1739.30   1844.2    1740.30   2407.0

NC    .0800     .08000    .05000    .10000    .30000
X1   38480         7     1530.0    1690.0      200.0    200.0     200.0
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X3      10.                                                                    .00          .00
GR   1740.0        1000.0     1740.00     1530.0     1724.70     1570.0     1724.70     1630.0      1732.00      1660.0
*R   1740.0        1690.0     1740.00     1910.0

        .0800       .08000      .02500      .10000      .30000
    CHARLESTON BOULEVARD BRIDGE
    CROSS SECTION DATA BETWEEN CHARLESTON AND STEWART FROM DIGITIZED DATA
    PREPARED BY CITY OF LAS VEGAS FOR MAINTENAANCE PLANS 1991.
SB    1.050        1.56        2.60         .00      108.60        6.67      937.00       1.500       1721.60      1725.00
X1    38580           7       990.0      1160.0       100.0       100.0       100.0
X2       0.         .00          1.      1729.80     1740.50         .00                    .000                      .000
X3      10.                                                                     .00          .00
BT      -2       990.0      1740.50     1729.80     1160.0      1740.50     1729.80
GR   1739.0        990.0     1727.20      1020.0     1727.00      1040.0     1722.30      1041.0      1721.60      1075.0
GR   1722.7       1130.0     1739.00      1160.0

X1    38630           7      1000.0      1150.0        50.0        50.0        50.0
GR   1739.5       1000.0     1729.20      1020.0     1729.00      1040.0     1722.50      1041.0      1721.80      1075.0
GR   1722.9       1130.0     1740.00      1150.0

X1    39020           7      1000.0      1150.0         390         390         390
GR   1741.6       1000.0     1731.30      1020.0     1731.10      1040.0     1724.60      1041.0      1723.90      1075.0
GR   1725.0       1130.0     1742.10      1150.0

X1    39410           7      1000.0      1150.0         390         390         390
GR   1743.0       1000.0     1732.70      1020.0     1732.50      1040.0     1726.00      1041.0      1725.30      1075.0
GR   1726.4       1130.0     1743.50      1150.0

X1    39830           7      1000.0      1150.0         420         420         420
GR   1744.8       1000.0     1734.50      1020.0     1734.30      1040.0     1727.80      1041.0      1727.10      1075.0
GR   1728.2       1130.0     1745.30      1150.0
1
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X1    40230           7      1000.0      1150.0        400.0       400.0       400.0
GR   1746.7       1000.0     1736.40      1020.0     1736.20      1040.0     1729.70      1041.0      1729.00      1075.0
GR   1730.1       1130.0     1747.20      1150.0

X1    40630           7      1000.0      1150.0        400.0       400.0       400.0
GR   1748.5       1000.0     1738.20      1020.0     1738.00      1040.0     1731.50      1041.0      1730.80      1075.0
GR   1731.9       1130.0     1749.00      1150.0

X1    41030           7      1000.0      1150.0        400.0       400.0       400.0
GR   1750.4       1000.0     1740.10      1020.0     1739.90      1040.0     1733.40      1041.0      1732.70      1075.0
     1733.8       1130.0     1750.90      1150.0

      41230           4      1000.0      1170.0        200.0       200.0       200.0
X3      10.                                                                     .00          .00
GR   1751.7       1000.0     1733.50      1021.0     1733.50      1149.0     1751.70     1170.0

NC    .0350       .03500      .03000      .10000      .30000
    STEWART AVENUE BRIDGE
    CROSS SECTION DATA FOR STEWART TO OWENS FROM DIGITIZED CROSS SECTIONS
    PREPARED BY CITY OF LAS VEGAS. PLAN DATE 1992.
SB    1.050        1.56        2.60       170.00       99.00        6.67     1709.00       1.500         .00          .00
X1    41330           9          .0       145.0       100.0       100.0       100.0
X2       0.         .00          1.      1748.40     1749.90         .00                    .000                      .000
X3      10.                                                                     .00          .00
GR   1749.9          .0     1736.89        18.0     1736.01        27.0     1734.09        56.0      1734.31        82.0
GR   1736.3        107.0     1737.64       124.0     1745.14       136.0     1749.90       145.0

X1    41550           7          .0       150.0         220         220         220
GR   1750.3          .0     1738.41         5.0     1736.90        23.0     1735.64        33.0      1736.25       104.0
GR   1737.4        120.0     1749.19       150.0

X1    41790           9          .0       132.0         240         240         240
GR   1751.4          .0     1747.25         8.0     1737.64        16.0     1738.22        36.0      1737.79        54.0
GR   1735.6         69.0     1735.98        95.0     1738.26       105.0     1754.52       132.0

X1    42190           8          .0       137.0       400.0       400.0       400.0
GR   1751.1          .0     1738.80        29.0     1737.86        41.0     1737.25        52.0      1738.64        64.0
GR   1737.2         80.0     1738.88        88.0     1753.58       137.0

X1    42580           8          .0       142.0         390         390         390
GR   1755.2          .0     1741.33        20.0     1739.47        32.0     1739.96        47.0      1740.89        60.0
GR   1740.1         75.0     1739.95        93.0     1757.14       142.0

X1    42945           9          .0       144.0       365.0       365.0       365.0
GR   1757.8          .0     1743.27        30.0     1739.92        41.0     1739.49        71.0      1742.83        75.0
GR   1743.3         82.0     1742.05        94.0     1743.14       108.0     1759.16       144.0

X1    43360           8          .0       140.0         415         415         415
GR   1757.3          .0     1743.45        33.0     1742.76        50.0     1741.31        63.0      1742.61        75.0
GR   1742.1         94.0     1744.43       105.0     1761.31       140.0
1
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      43750           8          .0       140.0         390         390         390
GR   1758.8          .0     1744.95        33.0     1744.26        50.0     1742.81        63.0      1744.11        75.0
GR   1743.6         94.0     1745.93       105.0     1762.81       140.0

X1    44160           7          .0       150.0         410         410         410
GR   1762.0          .0     1758.02         9.0     1746.60        32.0     1744.05        70.0      1745.78        90.0
GR   1745.8        122.0     1764.08       150.0

X1    44300          11          .0       165.0         140         140         140
X3      10.                                                                     .00          .00
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GR   1759.5        .0   1758.00      5.0   1747.45     24.0   1747.57     26.0   1746.41     48.0
GR   1746.2       67.0   1744.09     84.0   1747.47    104.0   1744.21    130.0   1758.29    160.0
GR   1761.9      165.0
     BONANZA ROAD BRIDGE

SB     1.050       1.56      2.60    168.00    108.00      8.00   2272.00     1.500       .00       .00
X1     44430          9      14.0     197.0     130.0     160.0     130.0
X2        0.        .00        1.   1762.00   1766.00       .00                .000                .000
X3       10.                                                                    .00       .00
GR   1766.0          .0   1766.00      14.0   1758.70     24.0   1748.30      44.0   1746.40      84.0
GR   1744.6        103.0   1746.80     159.0   1758.10    180.0   1766.00     197.0

X1     44660          8        .0     175.0       230       230       230
GR   1761.2          .0   1750.60      41.0   1748.20     79.0   1744.00      87.0   1746.60     103.0
GR   1748.1        117.0   1762.40     161.0   1764.50    175.0

X1     44850          8        .0     160.0       190       190       190
GR   1760.6          .0   1758.80      14.0   1752.10     35.0   1749.20      84.0   1745.50     100.0
GR   1749.7        109.0   1760.80     154.0   1761.30    160.0

X1     45130         10        16     160.0       280       280       280
GR   1761.0          .0   1760.90      16.0   1752.50     36.0   1749.60      69.0   1746.90      79.0
GR   1749.8         91.0   1749.90     111.0   1752.20    116.0   1752.90     125.0   1762.60     160.0

X1     45440          8        15     138.0       310       310       310
GR   1765.1          .0   1764.80      15.0   1752.60     47.0   1750.80      60.0   1748.50      84.0
GR   1753.4        112.0   1762.40     138.0   1763.50    153.0

X1     45740          9        15     154.0       300       300       300
GR   1765.8          .0   1766.00      15.0   1754.10     49.0   1752.80      59.0   1748.40      80.0
GR   1751.6         97.0   1755.30     126.0   1764.00    143.0   1765.70     154.0

X1     46140          8        .0     155.0       400       400       400
GR   1766.9          .0   1764.70      24.0   1752.90     58.0   1751.60      70.0   1749.60      86.0
GR   1756.4        120.0   1768.00     155.0   1766.20    163.0

X1     46350          6        14     145.0       210       210       210
GR   1766.5          .0   1766.30      14.0   1754.20     50.0   1750.40      78.0   1755.90     105.0
GR   1765.9       145.0
1
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X1     46640          7        .0     138.0       290       290       290
GR   1768.7          .0   1758.10      40.0   1757.40     53.0   1752.20      75.0   1754.70     108.0
     1767.9        138.0   1767.80     147.0


X1     46930         10        15     140.0       290       290       290
GR   1770.3          .0   1770.40      15.0   1756.50     37.0   1753.40      50.0   1753.20      65.0
GR   1756.0         90.0   1758.00      93.0   1759.00    112.0   1770.30     140.0   1770.20     147.0

     X-SECTION NO. IS BASED ON CONSTRUCTION PLAN FOR WASHINGTON RD. BRADGE
     AND CHANNEL IMPROVMENT NEAR THE BRIDGE( SEC 17+40 TO SEC 22+88)

NC     0.016       0.016     0.016
   SEC 22+88
X1     47100          4       500       641       170       170       170
GR   1771.5         500   1754.5      525.5   1754.5     615.5   1771.5      641

NC                                      0.3       0.5

   ********** DOWNSTREAM FACE OF BRIDGE **********
   ********** BRIDGE IS SKEWED APPROX. 37 DEG. **********
   SEC 20+50
X1     47340         10       500       658       275       200       240     0.798
X3        10
GR   1772.5          0   1772.5      500   1769.0     500   1769.0      503   1756.2      522
GR   1756.2        636   1769.0      655   1769.0     658   1772.5      658   1772.5     1158

SB       0.9       1.56      2.65                  91         6      1210       1.5   1759.5   1756.2

   ********** UPSTREAM FACE OF BRIDGE **********
   SEC 19+50
X1     47440        10.       500       658       100       100       100      .798
X2                                1      1771.3    1772.8                                0.798
X3        10
BT        -4          0   1772.8      1772.8       500   1772.8   1771.3      658   1772.8   1771.3
BT                 1158   1772.8      1772.8
GR   1772.8          0   1772.8      500   1769.3     500   1769.3      503   1759.5      520
GR   1759.5        638   1769.3      655   1769.3     658   1772.8      658   1772.8     1158

NC                                      0.1       0.3

   SEC 18+40
X1     47550          4       500       624        50       170       110
GR   1773.3         500   1762.0      517   1762.0     607   1773.3      624

   SEC 17+42

.1     47610          4       500       623        60        60        60
GR   1774.5         500   1763.5      516.5   1763.5     606.5   1774.5      623

   ********************************************************************************
   9940.0       7    15.0    125.0   300.0    300.0   300.0
   1771.2      .0 1771.50     15.0 1756.40     48.0 1756.00     85.0 1758.60     97.0
1
     05OCT98     16:08:02                                                                    PAGE    6
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      1772.6   125.0 1772.30   135.0
       10040       7    15.0   126.0   100.0   100.0   100.0
      1771.8       .0 1772.00    15.0 1759.70    42.0 1756.60    76.0 1758.30    93.0
      1776.0   126.0 1772.70   136.0
       10310       9      .0   150.0   270.0   270.0   270.0
      1775.3       .0 1766.50    19.0 1767.90    39.0 1765.80    51.0 1765.00    63.0
      1765.5    71.0 1770.50   110.0 1771.90   122.0 1775.60   150.0
*****************************************************************************************

NC     0.035   0.035   0.030
X1     47800       9    17.0   132.0     190     190     190
GR    1775.6       .0 1775.70    17.0 1767.10    36.0 1767.40    50.0 1767.30    69.0
GR    1765.7    81.0 1766.70    89.0 1776.40   132.0 1776.20   144.0

X1     48040      10.    17.0   124.0     240     240     240
GR    1777.0       .0 1776.50    17.0 1767.80    35.0 1769.20    55.0 1767.20    72.0
GR    1767.6    80.0 1767.20    92.0 1774.00   119.0 1778.30   124.0 1777.70   149.0

X1     48220       8.    17.0   125.0     180     180     180
GR    1778.0       .0 1776.90    17.0 1768.70    35.0 1769.90    55.0 1767.50    70.0
GR    1770.1    93.0 1779.60   125.0 1778.20   149.0

X1     48410      10.    17.0   129.0     190     190     190
GR    1780.4       .0 1777.70    17.0 1769.90    33.0 1770.60    71.0 1769.80    85.0
GR    1766.6    94.0 1769.30   100.0 1776.80   120.0 1778.60   129.0 1778.50   154.0

X1     48700      10.    20.0   131.0     290.0   290.0   290.0
GR    1780.1       .0 1778.40    20.0 1770.60    37.0 1771.00    73.0 1769.00    83.0
GR    1767.8    95.0 1768.90   100.0 1780.00   122.0 1781.10   131.0 1781.70   169.0

X1     49100      10.    19.0   128.0     400.0   400.0   400.0
GR    1780.7       .0 1779.90    19.0 1771.70    37.0 1771.20    58.0 1771.10    77.0
GR    1769.4    85.0 1771.00    92.0 1772.70   108.0 1782.70   128.0 1782.60   153.0

X1     49295      13.      .0   171.0     195.0   195.0   195.0
GR    1783.0       .0 1780.70    18.0 1772.40    36.0 1772.20    63.0 1772.50    80.0
GR    1773.1    97.0 1771.80   111.0 1770.30   116.0 1771.60   122.0 1772.40   137.0
GR    1782.1   165.0 1783.40   171.0 1783.50   195.0

       49390      12.      .0   160.0      95      95      95
       10.                                                      .00             .00
GR    1784.6       .0 1772.70    19.0 1773.40    67.0 1772.30    97.0 1770.90   104.0
GR    1771.9   109.0 1771.80   130.0 1781.50   145.0 1782.20   148.0 1784.50   158.0
GR    1784.6   160.0 1784.40   180.0
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SB     1.050    1.56    2.60   144.00   105.00     6.00  1431.00    1.500     .00     .00
X1     49495       8.      .0   153.0    105.0    105.0    105.0
X2        0.     .00      1.   1782.50  1784.60      .00                 .000             .000
X3       10.                                                    .00             .00
GR    1784.4       .0 1783.60     1.0 1773.20    20.0 1771.80    67.0 1772.20   128.0
GR    1781.2   145.0 1784.10   153.0 1783.70   164.0

X1     49670       9.    13.0   138.0     175     175     175
GR    1784.3       .0 1783.60    13.0 1775.00    35.0 1773.00    64.0 1771.10    79.0
GR    1771.4    86.0 1774.30   114.0 1785.60   138.0 1786.00   154.0

X1     49870       9.    17.0   135.0     200.0   200.0   200.0
GR    1785.1       .0 1784.90    17.0 1775.70    36.0 1774.50    67.0 1770.70    80.0
GR    1774.0    95.0 1772.70   107.0 1786.10   135.0 1787.40   150.0

X1     50070       9     16.0   135.0     200.0   200.0   200.0
GR    1786.0       .0 1785.60    16.0 1776.40    38.0 1774.30    55.0 1771.20    64.0
GR    1774.8    73.0 1775.70   107.0 1787.40   135.0 1788.00   150.0

X1     50270       9.    17.0   134.0     200.0   200.0   200.0
GR    1787.5       .0 1787.60    17.0 1774.40    44.0 1776.60    57.0 1772.80    70.0
GR    1776.6    77.0 1777.00   110.0 1787.70   134.0 1789.10   150.0

X1     50470       9.    20.0   150.0     200.0   200.0   200.0
GR    1788.8       .0 1788.50    20.0 1778.60    41.0 1777.80    61.0 1773.90    80.0
GR    1775.7    92.0 1781.30    97.0 1783.60   121.0 1789.80   150.0

X1     50670       9.    29.0   128.0     200.0   200.0   200.0
GR    1789.6       .0 1789.10    29.0 1778.40    45.0 1776.80    60.0 1774.00    69.0
GR    1777.8    75.0 1778.60    87.0 1788.40   128.0 1790.00   150.0

X1     50870       7     11.0   112.0     200.0   200.0   200.0
GR    1791.5       .0 1789.00    11.0 1782.70    30.0 1779.10    40.0 1780.10    82.0
GR    1789.4   112.0 1789.00   128.0
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X1   51080        7          .0        128.0         210         210         210
GR    1792.4      .0       1789.50      21.0       1783.90      42.0       1781.10      55.0       1777.10      68.0
      1780.3     88.0       1790.40     128.0
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X1   51300        8.         15.0       115.0         220         220         220
GR    1792.4      .0       1791.80      15.0       1784.30      30.0       1780.50      46.0       1777.30      55.0
GR    1778.3     75.0       1790.90     115.0       1791.20     126.0

X1   51490       12.          .0        125.0         190         190         190
GR    1791.2      .0       1788.80      27.0       1787.90      48.0       1779.90      71.0       1779.20      77.0
GR    1777.4     80.0       1780.60      93.0       1778.70     103.0       1780.90     110.0       1789.50     118.0
GR    1792.0    125.0       1792.30     137.0

X1   51690         11         25.0       115.0       200.0       200.0       200.0
GR    1792.9      .0       1792.90      25.0       1785.30      37.0       1784.30      52.0       1780.50      65.0
GR    1778.1     68.0       1781.20      80.5       1787.10      81.0       1787.50      90.0       1793.40     115.0
GR    1792.9    119.0

X1   51890          8         15.0       113.0       200.0       200.0       200.0
GR    1794.5      .0       1794.50      15.0       1787.60      36.0       1785.20      65.0       1779.70      81.0
GR    1780.5     88.0       1794.70     113.0       1794.20     125.0

X1   52100         10         16.0       129.0       210.0       210.0       210.0
GR    1794.6      .0       1795.30      16.0       1787.50      37.0       1787.40      65.0       1780.90      75.0
GR    1781.0     86.0       1784.10      91.0       1786.50     105.0       1796.80     129.0       1796.20     140.0

X1   52300          9         13.0       118.0         200         200         200
GR    1794.4      .0       1795.40      13.0       1790.70      21.0       1786.60      60.0       1784.50      65.0
GR    1787.4     74.0       1787.30     100.0       1796.60     118.0       1796.90     131.0

X1   52500        10.         23.0       129.0       200.0       200.0       200.0
GR    1797.4      .0       1797.10      23.0       1789.10      38.0       1786.80      51.0       1788.50      56.0
GR    1789.6     91.0       1787.60      99.0       1789.90     107.0       1795.90     129.0       1796.40     145.0

      52690        10.         15.0       135.0         190         190         190
GR    1798.6      .0       1798.70      15.0       1791.20      35.0       1789.40      78.0       1787.00      85.0
GR    1789.4     93.0       1789.60     111.0       1796.60     135.0       1797.00     150.0       1798.40     180.0

X1   52890        10.         20.0       131.0         200         200         200
GR    1799.1      .0       1797.70      20.0       1790.90      35.0       1789.50      78.0       1787.50      86.0
GR    1789.4    104.0       1791.00     114.0       1797.40     131.0       1797.60     147.0       1798.90     178.0

X1   53080         9.         20.0       134.0       190.0       190.0       190.0
GR    1800.3      .0       1798.80      20.0       1792.20      31.0       1790.50      60.0       1789.80      96.0
GR    1789.9    115.0       1798.90     134.0       1798.50     145.0       1801.00     180.0
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X1   53280         9.          .0        135.0       200.0       200.0       200.0
GR    1801.8      .0       1792.40      31.0       1790.70      45.0       1789.40      82.0       1788.80     105.0
GR    1792.9    114.0       1800.00     135.0       1799.80     145.0       1801.30     178.0

X1   53500        13.         15.0       154.0         220         220         220
GR    1802.2      .0       1802.40      15.0       1794.00      35.0       1791.30      46.0       1790.00      60.0
GR    1791.8     92.0       1790.50      98.0       1792.30     105.0       1790.60     110.0       1792.20     115.0
GR    1795.3    131.0       1802.60     154.0       1803.40     184.0

X1   53685        13.          .0        186.0       185.0       185.0       185.0
GR    1803.5      .0       1793.40      34.0       1792.40      50.0       1791.90      64.0       1792.20      71.0
GR    1793.1     90.0       1791.50      96.0       1792.50     105.0       1791.10     109.0       1793.00     115.0
GR    1794.2    135.0       1804.80     170.0       1806.40     186.0

X1   53865        16.          .0        191.0         180         180         180
X3      10.                                                                   .00                     .00
GR    1804.1      .0       1803.30      17.0       1794.40      30.0       1793.10      51.0       1792.20      55.0
GR    1793.6     67.0       1792.60      71.0       1794.40      78.0       1793.70      82.0       1793.20      95.0
GR    1794.0    103.0       1794.40     117.0       1793.60     125.0       1795.00     130.0       1805.30     179.0
GR    1807.3    191.0

C    .0800      .08000      .05000      .10000      .30000
   OWENS AVENUE BRIDGE
   CROSS SECTION DATA BETWEEN OWENS AND LAKE MEAD FROM JMM MAPPING
   PHOTO DATE 1986, SCALE: 1"=400', CONTOUR INTERVAL = 4'
SB    1.050      1.56        2.60       144.00      106.00       4.00       1052.00      1.500      1792.70     1790.40
X1   53971         5.       1120.0       1264.0      106.0       106.0       106.0
X2                             1           1805       1806.7
X3      10.                                                                   .00                     .00
GR    1806.7    1120.0      1792.70     1139.0      1792.70     1240.0      1792.70     1244.0      1806.70     1264.0
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X1    54200        5.    1120.0    1296.0       229       229       229
R     1806.4    1120.0   1797.40    1155.2   1793.40    1225.6   1793.40    1243.2   1809.40    1296.0

X1    54350        5.    1120.0    1273.1       150       150       150
GR    1806.1    1120.0   1798.10    1150.6   1794.10    1211.9   1794.10    1227.2   1808.10    1273.1

X1    54550        5.    1120.0    1250.2     200.0     200.0     200.0
GR    1811.8    1120.0   1798.80    1146.0   1794.80    1198.1   1794.80    1211.1   1810.80    1250.2

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X1    54740        5.    1120.0    1226.7       190       190       190
GR    1812.5    1120.0   1799.50    1141.3   1795.50    1184.0   1795.50    1194.7   1810.50    1226.7

X1    54890        4.    1180.0    1280.0       150       150       150
GR    1811.0    1180.0   1796.00    1210.0   1796.00    1225.0   1813.00    1280.0

X1    55080        4.    1180.0    1286.0       190       190       190
GR    1812.9    1180.0   1797.90    1211.8   1797.90    1227.7   1814.90    1286.0

X1    55565         7          0       100       485       485       485                 1800
GR       15         0         .6        20         0        50        .6        80        12        100
GR     12.2       110         13       140

X1    55950         6          0       100       385       385       385                 1800
GR       17         0       12.1         0       2.1        20       1.5        50       2.1         80
GR       16       100

X1    56265         6          0       100       315       315       315                 1800
GR       20         0       15.3         0       5.3        20       4.7        50       5.3         80
GR       17       100

X1    56674         6          0       100       409       409       409                 1800
GR       25         0       18.8         0       8.8        20       8.2        50       8.8         80
GR       17       100

X1    56764         6          0       100        90        90        90                 1800
GR       19         0        9.5        20       8.9        50       9.5        80        17        100
R        18       110

X1    57102         5          0       100       338       338       338                 1800
X2     5195
GR       23         0       12.8        20      12.2        50      12.8        80        22        100

X1    57300        6.        6.0      94.0       198       198       198
X3       10.                                                          .00                 .00
GR    1825.0        .0   1825.00       6.0   1814.00      11.0   1814.00      83.0   1825.00      94.0
GR    1825.0     100.0

  USE EQUIVALENT SAME SIZE BOX CULVERTS.
  3-12'X8' AND 4-8'X8' BOX CULVERTS AT LAKE MEAD BLVD.

NC     .0800     .08000     .03500     .10000     .30000
SC     7.015        .50       2.60        .00       8.00      9.71       250        8.1    1814.1      1814
X1     57550         6.       34.0      114.0        250       250       250
X2        0.        .00         2.     1822.1     1823.6       .00                  .000                   .000
X3       10.                                                                    1823.60    1823.60
BT        -2       12.0    1823.60    1822.10      138.0   1823.60   1822.10
GR    1825.0        4.0   1823.60       12.0   1814.10      34.0   1814.10     114.0    1823.60      138.0
GR    1825.0      146.0
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     SECNO      DEPTH      QWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

*PROF 1
0

CCHV=     .100 CEHV=     .300
*SECNO 37300.000
2096 WSEL NOT GIVEN, AVG OF MAX, MIN USED
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1736.00 ELREA=      1736.00

 37300.000      5.98   1728.58    1728.58       .00    1731.08      2.51       .00        .00    1736.00
    5993.0        .0    5993.0         .0        .0      471.6         .0        .0         .0    1736.00
       .00        .00     12.71        .00      .000       .040      .000      .000    1722.60    1162.37
   .014326        0.        0.         0.         0         10         0       .00      95.16    1257.54

CCHV=     .100 CEHV=     .300

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1726.63 , NOT    1728.58 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
```

1.05	1.56	2.60	136.00	93.60	6.67	1185.00	2.00	1722.60	1722.60

*SECNO 37350.000

.01 HV CHANGED MORE THAN HVINS

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1727.68 BRIDGE VELOCITY= 12.16 CALCULATED CHANNEL AREA= 493.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1731.08	.00	0.	5993.	1185.	1185.	1733.50	1737.40	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1736.00 ELREA= 1736.00

37350.000	5.98	1728.58	.00	.00	1731.08	1.46	.00	.00	1736.00
5993.0	.0	5993.0	.0	.0	618.3	.0	.6	.1	1736.00
.00	.00	9.69	.00	.000	.050	.000	.000	1722.60	1162.34
.011214	50.	50.	50.	0	0	0	.00	111.31	1273.66

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300

*SECNO 37500.000

37500.000	8.13	1730.90	.00	.00	1732.28	1.38	1.19	.01	1736.17
5993.0	.0	5993.0	.0	.0	636.1	.0	2.8	.5	1736.17
.01	.00	9.42	.00	.000	.040	.000	.000	1722.77	1141.32
.005871	150.	150.	150.	3	0	0	.00	102.15	1243.48

*SECNO 37690.000

3301 HV CHANGED MORE THAN HVINS

37690.000	8.66	1731.66	.00	.00	1734.02	2.36	1.45	.29	1736.00
5993.0	.0	5993.0	.0	.0	486.4	.0	5.2	.9	1736.00
.01	.00	12.32	.00	.000	.040	.000	.000	1723.00	1380.84
.010283	190.	190.	190.	3	0	0	.00	79.14	1459.99

CCHV= .100 CEHV= .300

*SECNO 37890.000

3301 HV CHANGED MORE THAN HVINS

37890.000	11.04	1734.74	.00	.00	1735.62	.87	1.45	.15	1736.70
5993.0	.0	5993.0	.0	.0	798.7	.0	8.2	1.3	1736.70
.02	.00	7.50	.00	.000	.055	.000	.000	1723.70	1434.88
.005395	200.	200.	200.	3	0	0	.00	105.09	1539.96

CCHV= .100 CEHV= .300

*SECNO 38080.000

38080.000	11.42	1735.82	.00	.00	1736.44	.62	.80	.03	1739.00
5993.0	.0	5993.0	.0	.0	948.8	.0	12.0	1.8	1739.00
.03	.00	6.32	.00	.000	.055	.000	.000	1724.40	1508.66
.003384	190.	190.	190.	2	0	0	.00	112.68	1621.34

CCHV= .100 CEHV= .300

*SECNO 38280.000

38280.000	11.96	1736.66	.00	.00	1736.96	.30	.49	.03	1739.30
5993.0	.0	5993.0	.0	.0	1352.9	.0	17.3	2.4	1739.30
.04	.00	4.43	.00	.000	.060	.000	.000	1724.70	1679.65
.001841	200.	200.	200.	2	0	0	.00	154.89	1834.55

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300

*SECNO 38480.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1740.00 ELREA= 1740.00

38480.000	12.25	1736.95	.00	.00	1737.32	.37	.33	.02	1740.00
5993.0	.0	5993.0	.0	.0	1235.1	.0	23.2	3.1	1740.00
.05	.00	4.85	.00	.000	.050	.000	.000	1724.70	1537.97
.001523	200.	200.	200.	2	0	0	.00	140.59	1678.56

CCHV= .100 CEHV= .300

SPECIAL BRIDGE

XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.05	1.56	2.60	.00	108.60	6.67	937.00	1.50	1721.60	1725.00

*SECNO 38580.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.87

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1737.94	1737.32	.03	0.	5993.	937.	937.	1729.80	1740.50	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1739.00 ELREA= 1739.00

38580.000	16.20	1737.80	.00	.00	1737.94	.14	.63	.00	1739.00
5993.0	.0	5993.0	.0	.0	1979.2	.0	26.9	3.4	1739.00
.06	.00	3.03	.00	.000	.025	.000	.000	1721.60	993.05
.000102	100.	100.	100.	2	0	0	.00	164.73	1157.79

*SECNO 38630.000

38630.000	15.98	1737.78	.00	.00	1737.96	.18	.01	.01	1739.50
5993.0	.0	5993.0	.0	.0	1766.5	.0	29.1	3.6	1740.00
.06	.00	3.39	.00	.000	.025	.000	.000	1721.80	1003.34
.000129	50.	50.	50.	2	0	0	.00	144.06	1147.40

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 39020.000

39020.000	13.89	1737.79	.00	.00	1738.05	.26	.06	.02	1741.60
5993.0	.0	5993.0	.0	.0	1472.2	.0	43.6	4.9	1742.10
.09	.00	4.07	.00	.000	.025	.000	.000	1723.90	1007.40
.000222	390.	390.	390.	2	0	0	.00	137.56	1144.96

*SECNO 39410.000

39410.000	12.54	1737.84	.00	.00	1738.17	.33	.10	.02	1743.00
5993.0	.0	5993.0	.0	.0	1290.6	.0	55.9	6.1	1743.50
.11	.00	4.64	.00	.000	.025	.000	.000	1725.30	1010.00
.000329	390.	390.	390.	1	0	0	.00	133.39	1143.39

*SECNO 39830.000

39830.000	10.81	1737.91	.00	.00	1738.40	.49	.18	.05	1744.80
5993.0	.0	5993.0	.0	.0	1063.4	.0	67.3	7.3	1745.30
.13	.00	5.64	.00	.000	.025	.000	.000	1727.10	1013.38
.000591	420.	420.	420.	2	0	0	.00	127.98	1141.36

*SECNO 40230.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .70

40230.000	9.03	1738.03	.00	.00	1738.82	.79	.33	.09	1746.70
5993.0	.0	5993.0	.0	.0	840.5	.0	76.0	8.5	1747.20
.15	.00	7.13	.00	.000	.025	.000	.000	1729.00	1016.84
.001211	400.	400.	400.	2	0	0	.00	122.44	1139.27

*SECNO 40630.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .70

40630.000	7.58	1738.38	.00	.00	1739.63	1.25	.67	.14	1748.50
5993.0	.0	5993.0	.0	.0	666.7	.0	82.9	9.6	1749.00
.16	.00	8.99	.00	.000	.025	.000	.000	1730.80	1019.64
.002480	400.	400.	400.	1	0	0	.00	117.94	1137.58

*SECNO 41030.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

41030.000	6.45	1739.15	.00	.00	1740.99	1.84	1.18	.17	1750.40
5993.0	.0	5993.0	.0	.0	551.2	.0	88.5	10.6	1750.90

.17	.00	10.87	.00	.000	.025	.000	.000	1732.70	1040.12
.003577	400.	400.	400.	2	0	0	.00	96.14	1136.26

*SECNO 41230.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.11

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1751.70 ELREA= 1751.70

41230.000	7.36	1740.86	.00	.00	1741.41	.55	.30	.13	1751.70
5993.0	.0	5993.0	.0	.0	1004.0	.0	92.1	11.1	1751.70
.18	.00	5.97	.00	.000	.025	.000	.000	1733.50	1012.51
.000803	200.	200.	200.	3	0	0	.00	144.98	1157.49

CCHV= .100 CEHV= .300

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON SB CARD NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.56	2.60	170.00	99.00	6.67	1709.00	1.50	1733.50	1733.50

*SECNO 41330.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .43

CLASS A LOW FLOW

3420 BRIDGE W.S.= 1740.69 BRIDGE VELOCITY= 8.08 CALCULATED CHANNEL AREA= 742.

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1742.42	.08	0.	5993.	1709.	1709.	1748.40	1749.90	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1749.90 ELREA= 1749.90

41330.000	6.85	1740.94	.00	.00	1742.42	1.47	1.01	.00	1749.90
5993.0	.0	5993.0	.0	.0	615.1	.0	94.0	11.4	1749.90
.18	.00	9.74	.00	.000	.030	.000	.000	1734.09	12.39
.004348	100.	100.	100.	0	0	0	.00	116.89	129.28

*SECNO 41550.000

41550.000	6.48	1742.12	.00	.00	1743.28	1.16	.83	.03	1750.30
5993.0	.0	5993.0	.0	.0	693.3	.0	97.3	12.0	1749.19
.19	.00	8.64	.00	.000	.030	.000	.000	1735.64	3.44
.003340	220.	220.	220.	3	0	0	.00	128.57	132.01

*SECNO 41790.000

3301 HV CHANGED MORE THAN HVINS

41790.000	6.96	1742.56	.00	.00	1744.64	2.07	1.08	.27	1751.40
5993.0	.0	5993.0	.0	.0	518.9	.0	100.6	12.7	1754.52
.20	.00	11.55	.00	.000	.030	.000	.000	1735.60	11.90
.006392	240.	240.	240.	3	0	0	.00	100.25	112.15

*SECNO 42190.000

42190.000	7.79	1744.99	.00	.00	1747.04	2.04	2.40	.00	1751.10
5993.0	.0	5993.0	.0	.0	522.3	.0	105.4	13.6	1753.58
.21	.00	11.48	.00	.000	.030	.000	.000	1737.20	14.41
.005646	400.	400.	400.	2	0	0	.00	93.96	108.36

*SECNO 42580.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

42580.000	7.92	1747.39	.00	.00	1748.79	1.40	1.69	.06	1755.20
5993.0	.0	5993.0	.0	.0	630.9	.0	110.5	14.4	1757.14
.22	.00	9.50	.00	.000	.030	.000	.000	1739.47	11.26
.003423	390.	390.	390.	2	0	0	.00	102.95	114.21

*SECNO 42945.000

42945.000	9.15	1748.64	.00	.00	1750.02	1.38	1.23	.00	1757.80
5993.0	.0	5993.0	.0	.0	635.1	.0	115.8	15.3	1759.16
.23	.00	9.44	.00	.000	.030	.000	.000	1739.49	18.90
.003322	365.	365.	365.	2	0	0	.00	101.48	120.37

*SECNO 43360.000

43360.000	8.69	1750.00	.00	.00	1751.45	1.45	1.40	.02	1757.30
5993.0	.0	5993.0	.0	.0	619.5	.0	121.8	16.3	1761.31
.24	.00	9.67	.00	.000	.030	.000	.000	1741.31	17.40
.003448	415.	415.	415.	2	0	0	.00	99.14	116.54

*SECNO 43750.000

43750.000	8.53	1751.34	.00	.00	1752.87	1.53	1.40	.02	1758.80
5993.0	.0	5993.0	.0	.0	603.9	.0	127.3	17.1	1762.81
.25	.00	9.92	.00	.000	.030	.000	.000	1742.81	17.78
.003716	390.	390.	390.	2	0	0	.00	98.44	116.21

*SECNO 44160.000

3301 HV CHANGED MORE THAN HVINS

44160.000	9.04	1753.09	.00	.00	1754.01	.93	1.09	.06	1762.00
5993.0	.0	5993.0	.0	.0	774.8	.0	133.8	18.1	1764.08
.27	.00	7.73	.00	.000	.030	.000	.000	1744.05	18.94
.001984	410.	410.	410.	2	0	0	.00	114.22	133.16

*SECNO 44300.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1759.50 ELREA= 1761.90

44300.000	9.54	1753.63	.00	.00	1754.27	.65	.23	.03	1759.50
5993.0	.0	5993.0	.0	.0	929.8	.0	136.5	18.5	1761.90
.27	.00	6.45	.00	.000	.030	.000	.000	1744.09	12.88
.001376	140.	140.	140.	2	0	0	.00	137.19	150.07

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON SB CARD NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.05	1.56	2.60	168.00	108.00	8.00	2272.00	1.50	1744.09	1744.09

*SECNO 44430.000
CLASS A LOW FLOW

3420 BRIDGE W.S.= 1753.56 BRIDGE VELOCITY= 5.54 CALCULATED CHANNEL AREA= 1081.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1754.37	.10	0.	5993.	2272.	2272.	1762.00	1766.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1766.00 ELREA= 1766.00

44430.000	9.13	1753.73	.00	.00	1754.37	.64	.09	.00	1766.00
5993.0	.0	5993.0	.0	.0	933.8	.0	139.3	19.0	1766.00
.28	.00	6.42	.00	.000	.030	.000	.000	1744.60	33.56
.001357	130.	130.	160.	0	0	0	.00	138.31	171.87

*SECNO 44660.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

44660.000	9.37	1753.37	1753.37	.00	1755.79	2.42	.64	.53	1761.20
5993.0	.0	5993.0	.0	.0	480.3	.0	143.0	19.6	1764.50
.28	.00	12.48	.00	.000	.030	.000	.000	1744.00	30.28
.008415	230.	230.	230.	20	8	0	.00	102.95	133.22

*SECNO 44850.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

44850.000	9.61	1755.11	1755.11	.00	1757.49	2.39	1.60	.00	1760.60
5993.0	.0	5993.0	.0	.0	483.5	.0	145.1	20.1	1761.30

.29	.00	12.40	.00	.000	.030	.000	.000	1745.50	25.58
.008477	190.	190.	190.	0	8	0	.00	105.34	130.92

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 45130.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.89

45130.000	10.86	1757.76	.00	.00	1758.77	1.01	1.14	.14	1760.90
5993.0	.0	5993.0	.0	.0	743.8	.0	149.1	20.8	1762.60
.30	.00	8.06	.00	.000	.030	.000	.000	1746.90	23.47
.002379	280.	280.	280.	2	0	0	.00	119.07	142.54

*SECNO 45440.000

3301 HV CHANGED MORE THAN HVINS

45440.000	9.72	1758.22	.00	.00	1759.94	1.72	.96	.21	1764.80
5993.0	.0	5993.0	.0	.0	569.6	.0	153.8	21.5	1762.40
.31	.00	10.52	.00	.000	.030	.000	.000	1748.50	32.24
.004212	310.	310.	310.	3	0	0	.00	93.70	125.94

*SECNO 45740.000

45740.000	11.36	1759.76	.00	.00	1761.00	1.24	1.01	.05	1766.00
5993.0	.0	5993.0	.0	.0	669.4	.0	158.0	22.2	1765.70
.31	.00	8.95	.00	.000	.030	.000	.000	1748.40	32.83
.002763	300.	300.	300.	3	0	0	.00	101.88	134.71

*SECNO 46140.000

46140.000	11.24	1760.84	.00	.00	1762.14	1.30	1.12	.02	1766.90
5993.0	.0	5993.0	.0	.0	653.9	.0	164.1	23.1	1768.00
.33	.00	9.17	.00	.000	.030	.000	.000	1749.60	35.13
.002844	400.	400.	400.	3	0	0	.00	98.26	133.39

*SECNO 46350.000

46350.000	10.97	1761.37	.00	.00	1762.86	1.49	.66	.05	1766.30
5993.0	.0	5993.0	.0	.0	612.6	.0	167.2	23.6	1765.90
.33	.00	9.78	.00	.000	.030	.000	.000	1750.40	28.66
.003522	210.	210.	210.	2	0	0	.00	98.24	126.89

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 46640.000

46640.000	10.27	1762.47	.00	.00	1763.86	1.39	.99	.01	1768.70
5993.0	.0	5993.0	.0	.0	632.5	.0	171.3	24.3	1767.90
.34	.00	9.47	.00	.000	.030	.000	.000	1752.20	23.50
.003341	290.	290.	290.	2	0	0	.00	102.16	125.66

*SECNO 46930.000

46930.000	10.28	1763.48	.00	.00	1764.75	1.27	.87	.01	1770.40
5993.0	.0	5993.0	.0	.0	662.1	.0	175.6	24.9	1770.30
.35	.00	9.05	.00	.000	.030	.000	.000	1753.20	25.97
.002726	290.	290.	290.	1	0	0	.00	97.11	123.08

*SECNO 47100.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.43

47100.000	9.90	1764.40	.00	.00	1764.92	.52	.09	.08	1771.50
5993.0	.0	5993.0	.0	.0	1038.4	.0	178.9	25.3	1771.50
.36	.00	5.77	.00	.000	.016	.000	.000	1754.50	510.65
.000231	170.	170.	170.	2	0	0	.00	119.71	630.35

CCHV= .300 CEHV= .500
*SECNO 47340.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1772.50 ELREA= 1772.50

47340.000	8.12	1764.32	.00	.00	1765.15	.84	.08	.16	1772.50

5993.0	.0	5993.0	.0	.0	816.8	.0	184.0	26.0	1772.50
.37	.00	7.34	.00	.000	.016	.000	.000	1756.20	406.94
.000463	275.	240.	200.	2	0	0	.00	110.21	517.15

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.56	2.65	.00	91.00	6.00	1210.00	1.50	1759.50	1756.20

*SECNO 47440.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .45

CLASS A LOW FLOW

3420 BRIDGE W.S.= 1765.83 BRIDGE VELOCITY= 7.75 CALCULATED CHANNEL AREA= 598.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1766.68	.12	0.	5993.	1210.	1212.	1771.30	1772.80	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1772.80 ELREA= 1772.80

47440.000	4.93	1764.43	.00	.00	1766.68	2.25	1.53	.00	1772.80
5993.0	.0	5993.0	.0	.0	498.4	.0	185.5	26.2	1772.80
.37	.00	12.02	.00	.000	.016	.000	.000	1759.50	408.13
.002263	100.	100.	100.	0	0	0	.00	107.83	515.96

CHV= .100 CEHV= .300
SECNO 47550.000
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

47550.000	5.01	1767.01	1767.01	.00	1769.35	2.33	.25	.03	1773.30
5993.0	.0	5993.0	.0	.0	489.1	.0	186.8	26.5	1773.30
.37	.00	12.25	.00	.000	.016	.000	.000	1762.00	509.46
.002326	50.	110.	170.	20	5	0	.00	105.09	614.54

*SECNO 47610.000
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

47610.000	5.00	1768.50	1768.50	.00	1770.85	2.35	.14	.00	1774.50
5993.0	.0	5993.0	.0	.0	487.6	.0	187.5	26.6	1774.50
.37	.00	12.29	.00	.000	.016	.000	.000	1763.50	509.00
.002348	60.	60.	60.	20	5	0	.00	105.00	614.00

*SECNO 47800.000
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

47800.000	7.56	1773.26	1773.26	.00	1775.77	2.51	.75	.05	1775.70
5993.0	.0	5993.0	.0	.0	471.1	.0	189.6	27.1	1776.40
.38	.00	12.72	.00	.000	.030	.000	.000	1765.70	22.40
.008120	190.	190.	190.	20	14	0	.00	95.67	118.07

*SECNO 48040.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.59

48040.000	8.49	1775.69	.00	.00	1777.05	1.35	1.16	.12	1776.50
5993.0	.0	5993.0	.0	.0	641.8	.0	192.6	27.6	1778.30
.38	.00	9.34	.00	.000	.030	.000	.000	1767.20	18.65
.003212	240.	240.	240.	2	0	0	.00	102.33	120.98

*SECNO 48220.000

3301 HV CHANGED MORE THAN HVINS

48220.000	8.47	1775.97	.00	.00	1778.00	2.04	.75	.21	1776.90
5993.0	.0	5993.0	.0	.0	523.2	.0	195.0	28.0	1779.60
.39	.00	11.46	.00	.000	.030	.000	.000	1767.50	19.05
.005617	180.	180.	180.	3	0	0	.00	93.72	112.76

*SECNO 48410.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

48410.000	11.02	1777.62	.00	.00	1778.82	1.20	.74	.08	1777.70
5993.0	.0	5993.0	.0	.0	680.5	.0	197.7	28.5	1778.60
.40	.00	8.81	.00	.000	.030	.000	.000	1766.60	17.17
.002827	190.	190.	190.	3	0	0	.00	106.91	124.08

*SECNO 48700.000

48700.000	10.60	1778.40	.00	.00	1779.59	1.19	.77	.00	1778.40
5993.0	.0	5993.0	.0	.0	684.5	.0	202.2	29.2	1781.10
.40	.00	8.76	.00	.000	.030	.000	.000	1767.80	19.89
.002506	290.	290.	290.	2	0	0	.00	98.96	118.85

*SECNO 49100.000

49100.000	10.03	1779.43	.00	.00	1780.59	1.15	.99	.00	1779.90
5993.0	.0	5993.0	.0	.0	695.5	.0	208.5	30.1	1782.70
.42	.00	8.62	.00	.000	.030	.000	.000	1769.40	20.02
.002437	400.	400.	400.	2	0	0	.00	101.45	121.47

SECNO 49295.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.45

49295.000	10.09	1780.39	.00	.00	1780.96	.57	.32	.06	1783.00
5993.0	.0	5993.0	.0	.0	986.3	.0	212.3	30.6	1783.40
.43	.00	6.08	.00	.000	.030	.000	.000	1770.30	18.67
.001167	195.	195.	195.	2	0	0	.00	141.41	160.07

*SECNO 49390.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1784.60 ELREA= 1784.60

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

49390.000	9.60	1780.50	.00	.00	1781.07	.58	.11	.00	1784.60
5993.0	.0	5993.0	.0	.0	983.0	.0	214.4	30.9	1784.60
.43	.00	6.10	.00	.000	.030	.000	.000	1770.90	6.55
.001148	95.	95.	95.	2	0	0	.00	136.89	143.45

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON SB CARD NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.05	1.56	2.60	144.00	105.00	6.00	1431.00	1.50	1770.90	1770.90

*SECNO 49495.000
CLASS A LOW FLOW

7420 BRIDGE W.S.= 1780.44 BRIDGE VELOCITY= 5.54 CALCULATED CHANNEL AREA= 1082.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1781.10	.06	0.	5993.	1431.	1350.	1782.50	1784.60	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1784.40 ELREA= 1784.10

49495.000	8.76	1780.56	.00	.00	1781.10	.54	.03	.00	1784.40
5993.0	.0	5993.0	.0	.0	1016.6	.0	216.9	31.3	1784.10

.44	.00	5.90	.00	.000	.030	.000	.000	1771.80	6.55
.001019	105.	105.	105.	0	0	0	.00	137.24	143.79

ECNO 49670.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .57

49670.000	9.22	1780.32	.00	.00	1781.62	1.30	.29	.23	1783.60
5993.0	.0	5993.0	.0	.0	654.9	.0	220.2	31.7	1785.60
.44	.00	9.15	.00	.000	.030	.000	.000	1771.10	21.38
.003090	175.	175.	175.	2	0	0	.00	105.41	126.79

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 49870.000									
49870.000	10.13	1780.83	.00	.00	1782.39	1.56	.69	.08	1784.90
5993.0	.0	5993.0	.0	.0	597.5	.0	223.1	32.2	1786.10
.45	.00	10.03	.00	.000	.030	.000	.000	1770.70	25.41
.003913	200.	200.	200.	2	0	0	.00	98.57	123.98
*SECNO 50070.000									
50070.000	10.28	1781.48	.00	.00	1783.38	1.90	.89	.10	1785.60
5993.0	.0	5993.0	.0	.0	542.0	.0	225.7	32.7	1787.40
.45	.00	11.06	.00	.000	.030	.000	.000	1771.20	25.85
.005130	200.	200.	200.	2	0	0	.00	94.99	120.84
*SECNO 50270.000									
50270.000	9.71	1782.51	.00	.00	1784.44	1.93	1.05	.01	1787.60
5993.0	.0	5993.0	.0	.0	536.9	.0	228.2	33.1	1787.70
.46	.00	11.16	.00	.000	.030	.000	.000	1772.80	27.41
.005377	200.	200.	200.	2	0	0	.00	94.94	122.36

ECNO 50470.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

50470.000	9.95	1783.85	1783.85	.00	1786.45	2.59	1.33	.20	1788.50
5993.0	.0	5993.0	.0	.0	463.6	.0	230.5	33.5	1789.80
.46	.00	12.93	.00	.000	.030	.000	.000	1773.90	29.86
.008423	200.	200.	200.	20	8	0	.00	92.33	122.18
*SECNO 50670.000									
50670.000	11.64	1785.64	.00	.00	1787.84	2.20	1.35	.04	1789.10
5993.0	.0	5993.0	.0	.0	503.4	.0	232.7	33.9	1788.40
.47	.00	11.91	.00	.000	.030	.000	.000	1774.00	34.17
.005557	200.	200.	200.	2	0	0	.00	82.28	116.45

*SECNO 50870.000
7185 MINIMUM SPECIFIC ENERGY

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3720 CRITICAL DEPTH ASSUMED									
50870.000	7.65	1786.75	1786.75	.00	1789.45	2.69	1.31	.15	1789.00
5993.0	.0	5993.0	.0	.0	455.1	.0	234.9	34.3	1789.40
.47	.00	13.17	.00	.000	.030	.000	.000	1779.10	17.78
.007900	200.	200.	200.	3	14	0	.00	85.68	103.46

*SECNO 51080.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.57

51080.000	12.11	1789.21	.00	.00	1790.58	1.36	1.00	.13	1792.40
5993.0	.0	5993.0	.0	.0	639.3	.0	237.5	34.8	1790.40
.48	.00	9.37	.00	.000	.030	.000	.000	1777.10	22.08
.003188	210.	210.	210.	3	0	0	.00	101.22	123.30

*SECNO 51300.000

51300.000	12.78	1790.08	.00	.00	1791.15	1.07	.54	.03	1791.80
5993.0	.0	5993.0	.0	.0	723.4	.0	241.0	35.3	1790.90
.48	.00	8.28	.00	.000	.030	.000	.000	1777.30	18.43
.001951	220.	220.	220.	2	0	0	.00	93.99	112.42

*SECNO 51490.000

51490.000	13.06	1790.46	.00	.00	1791.64	1.18	.45	.03	1791.20
5993.0	.0	5993.0	.0	.0	687.6	.0	244.1	35.7	1792.00
.49	.00	8.72	.00	.000	.030	.000	.000	1777.40	8.33
.002991	190.	190.	190.	2	0	0	.00	112.35	120.69

*SECNO 51690.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

51690.000	12.36	1790.46	1790.46	.00	1793.48	3.02	.96	.55	1792.90
5993.0	.0	5993.0	.0	.0	429.8	.0	246.6	36.1	1793.40
.49	.00	13.94	.00	.000	.030	.000	.000	1778.10	28.85
.008813	200.	200.	200.	20	11	0	.00	73.72	102.56

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 51890.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.81

51890.000	13.54	1793.24	.00	.00	1794.55	1.30	.89	.17	1794.50
5993.0	.0	5993.0	.0	.0	654.5	.0	249.1	36.5	1794.70
.50	.00	9.16	.00	.000	.030	.000	.000	1779.70	18.83
.002678	200.	200.	200.	3	0	0	.00	91.60	110.43

*SECNO 52100.000

52100.000	13.13	1794.03	.00	.00	1795.08	1.04	.50	.03	1795.30
5993.0	.0	5993.0	.0	.0	730.6	.0	252.5	37.0	1796.80
.51	.00	8.20	.00	.000	.030	.000	.000	1780.90	19.40
.002167	210.	210.	210.	2	0	0	.00	103.15	122.56

*SECNO 52300.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

52300.000	9.65	1794.15	.00	.00	1795.90	1.75	.61	.21	1795.40
5993.0	.0	5993.0	.0	.0	564.4	.0	255.4	37.4	1796.60
.51	.00	10.62	.00	.000	.030	.000	.000	1784.50	15.12
.004687	200.	200.	200.	2	0	0	.00	98.16	113.27

*SECNO 52500.000

52500.000	8.20	1795.00	.00	.00	1797.08	2.08	1.08	.10	1797.10
5993.0	.0	5993.0	.0	.0	518.3	.0	257.9	37.9	1795.90
.52	.00	11.56	.00	.000	.030	.000	.000	1786.80	26.94
.006237	200.	200.	200.	2	0	0	.00	98.77	125.70

*SECNO 52690.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

2690.000	9.73	1796.73	.00	.00	1798.00	1.27	.85	.08	1798.70
5993.0	.0	5992.9	.1	.0	662.0	.3	260.5	38.4	1796.60
.52	.00	9.05	.39	.000	.030	.035	.000	1787.00	20.26
.003332	190.	190.	190.	3	0	0	.00	119.46	139.73

*SECNO 52890.000

52890.000	10.02	1797.52	.00	.00	1798.57	1.05	.55	.02	1797.70
5993.0	.0	5992.8	.2	.0	728.7	.6	263.7	38.9	1797.40
.53	.00	8.22	.32	.000	.030	.035	.000	1787.50	20.39
.002316	200.	200.	200.	2	0	0	.00	120.58	140.96

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 *SECNO 53080.000
  3080.000      8.16   1797.96      .00      .00   1799.03     1.07      .45      .01   1798.80
  5993.0          .0    5993.0       .0       .0     722.2       .0    266.8     39.4   1798.90
      .54         .00      8.30      .00      .000    .030      .000     .000  1789.80     21.41
  .002395      190.     190.      190.        2        0         0       .00    110.58    132.00

 *SECNO 53280.000
  53280.000     9.83   1798.63      .00      .00   1799.46      .83      .41      .02   1801.80
  5993.0          .0    5993.0       .0       .0     817.9       .0    270.4     40.0   1800.00
      .54         .00      7.33      .00      .000    .030      .000     .000  1788.80     10.47
  .001757      200.     200.      200.        2        0         0       .00    120.47    130.94

 *SECNO 53500.000
  53500.000     9.00   1799.00      .00      .00   1799.89      .89      .41      .02   1802.40
  5993.0          .0    5993.0       .0       .0     791.7       .0    274.4     40.6   1802.60
      .55         .00      7.57      .00      .000    .030      .000     .000  1790.00     23.10
  .002003      220.     220.      220.        2        0         0       .00    121.99    145.09

 *SECNO 53685.000
  53685.000     8.30   1799.40      .00      .00   1800.29      .89      .40      .00   1803.50
  5993.0          .0    5993.0       .0       .0     789.6       .0    277.8     41.1   1806.40
      .56         .00      7.59      .00      .000    .030      .000     .000  1791.10     13.82
  .002358      185.     185.      185.        2        0         0       .00    138.34    152.16

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     SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
     Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 *SECNO 53865.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1804.10 ELREA=      1807.30

  53865.000     7.50   1799.70      .00      .00   1800.90     1.21      .52      .09   1804.10
  5993.0          .0    5993.0       .0       .0     679.3       .0    280.8     41.7   1807.30
      .56         .00      8.82      .00      .000    .030      .000     .000  1792.20     22.26
  .003610      180.     180.      180.        2        0         0       .00    130.08    152.34

 CCHV=      .100 CEHV=      .300

 SPECIAL BRIDGE

 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.05      1.56      2.60    144.00    106.00      4.00    1052.00     1.50    1792.70   1790.40

 *SECNO 53971.000
 CLASS A LOW FLOW

 3420 BRIDGE W.S.=     1800.81 BRIDGE VELOCITY=        5.59     CALCULATED CHANNEL AREA=        925.

  EGPRS       EGLWC       H3        QWEIR     QLOW      BAREA     TRAPEZOID AREA     ELLC      ELTRD     WEIRLN
       .00   1800.90       .15          0.     5993.     1052.          1482.     1805.00   1806.70         0.


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1806.70 ELREA=      1806.70

  53971.000     7.00   1799.70      .00      .00   1800.90      .83      .00      .00   1806.70
  5993.0          .0    5993.0       .0       .0     821.2       .0    282.7     42.0   1806.70
      .57         .00      7.30      .00      .000    .050      .000     .000  1792.70   1129.30
  .005137      106.     106.      106.        0        0         0       .00    124.90   1254.21

 *SECNO 54200.000
  54200.000     7.98   1801.38      .00      .00   1802.53     1.14     1.53      .10   1806.40
  5993.0          .0    5993.0       .0       .0     698.0       .0    286.7     42.7   1809.40
      .57         .00      8.59      .00      .000    .050      .000     .000  1793.40   1139.62
  .009034      229.     229.      229.        3        0         0       .00    129.93   1269.55

 *SECNO 54350.000
  54350.000     8.59   1802.69      .00      .00   1803.84     1.15     1.31      .00   1806.10
  5993.0          .0    5993.0       .0       .0     696.6       .0    289.1     43.1   1808.10
      .58         .00      8.60      .00      .000    .050      .000     .000  1794.10   1133.05
  .008420      150.     150.      150.        2        0         0       .00    122.31   1255.36

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     SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
     Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 *SECNO 54550.000
```

54550.000	9.43	1804.23	.00	.00	1805.56	1.33	1.67	.05	1811.80
5993.0	.0	5993.0	.0	.0	648.0	.0	292.1	43.6	1810.80
.59	.00	9.25	.00	.000	.050	.000	.000	1794.80	1135.14
.008261	200.	200.	200.	2	0	0	.00	99.01	1234.15

*SECNO 54740.000

54740.000	10.21	1805.71	.00	.00	1807.24	1.54	1.62	.06	1812.50
5993.0	.0	5993.0	.0	.0	602.4	.0	294.9	44.0	1810.50
.59	.00	9.95	.00	.000	.050	.000	.000	1795.50	1131.13
.008825	190.	190.	190.	2	0	0	.00	85.35	1216.48

*SECNO 54890.000

3301 HV CHANGED MORE THAN HVINS

54890.000	10.75	1806.75	.00	.00	1809.34	2.59	1.78	.32	1811.00
5993.0	.0	5993.0	.0	.0	463.7	.0	296.7	44.3	1813.00
.59	.00	12.92	.00	.000	.050	.000	.000	1796.00	1188.50
.016789	150.	150.	150.	2	0	0	.00	71.28	1259.78

*SECNO 55080.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.42

55080.000	12.23	1810.13	.00	.00	1811.63	1.50	2.18	.11	1812.90
5993.0	.0	5993.0	.0	.0	609.2	.0	299.0	44.6	1814.90
.60	.00	9.84	.00	.000	.050	.000	.000	1797.90	1185.88
.008334	190.	190.	190.	3	0	0	.00	83.75	1269.63

*SECNO 55565.000

3301 HV CHANGED MORE THAN HVINS

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.03

55565.000	12.92	1812.92	.00	.00	1813.48	.56	1.76	.09	1815.00
5993.0	.0	5982.8	10.2	.0	995.3	18.0	308.1	45.8	1812.00
.62	.00	6.01	.56	.000	.050	.080	.000	1800.00	2.88
.002016	485.	485.	485.	3	0	0	.00	134.24	137.13

*SECNO 55950.000

55950.000	12.22	1813.72	.00	.00	1814.35	.62	.85	.02	1817.00
5993.0	.0	5993.0	.0	.0	945.1	.0	316.7	46.8	1816.00
.64	.00	6.34	.00	.000	.050	.000	.000	1801.50	.00
.002412	385.	385.	385.	3	0	0	.00	96.72	96.72

*SECNO 56265.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .67

56265.000	9.81	1814.51	.00	.00	1815.56	1.05	1.09	.13	1820.00
5993.0	.0	5993.0	.0	.0	728.1	.0	322.8	47.5	1817.00
.65	.00	8.23	.00	.000	.050	.000	.000	1804.70	1.58
.005351	315.	315.	315.	2	0	0	.00	94.17	95.75

*SECNO 56674.000

56674.000	8.74	1816.94	.00	.00	1818.25	1.30	2.61	.08	1825.00
5993.0	.0	5993.0	.0	.0	654.4	.0	329.3	48.4	1817.00
.66	.00	9.16	.00	.000	.050	.000	.000	1808.20	3.70
.007729	409.	409.	409.	2	0	0	.00	96.18	99.88

*SECNO 56764.000

56764.000	8.78	1817.68	.00	.00	1818.93	1.25	.68	.01	1819.00
5993.0	.0	5991.2	1.8	.0	667.5	2.3	330.6	48.6	1817.00
.66	.00	8.98	.77	.000	.050	.080	.000	1808.90	2.79
.007297	90.	90.	90.	2	0	0	.00	103.98	106.77

ECNO 57102.000

57102.000	8.06	1820.26	.00	.00	1821.51	1.24	2.58	.00	1823.00
5195.0	.0	5195.0	.0	.0	580.7	.0	335.5	49.4	1822.00
.68	.00	8.95	.00	.000	.050	.000	.000	1812.20	5.37
.008027	338.	338.	338.	2	0	0	.00	90.84	96.22

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 57300.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1825.00 ELREA= 1825.00

57300.000	7.82	1821.82	.00	.00	1822.96	1.13	1.44	.01	1825.00
5195.0	.0	5195.0	.0	.0	607.8	.0	338.2	49.8	1825.00
.68	.00	8.55	.00	.000	.050	.000	.000	1814.00	7.44
.006637	198.	198.	198.	2	0	0	.00	83.38	90.82

CCHV= .100 CEHV= .300

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	7	.015	.50	2.60	.00	8.00	9.71	250.00	8	1	1814.10	1814.00

CHART 8 - BOX CULVERT WITH FLARED WINGWALLS; NO INLET TOP EDGE BEVEL
SCALE 1 - WINGWALLS FLARED 30 TO 75 DEGREES

5140, NORMAL DEPTH EXCEEDS CULVERT HEIGHT
*SECNO 57550.000

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1823.292 EGOC = 1823.353 POWSE= 1821.824 ELTRD= 1823.600

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.81

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1823.29	1823.35	.39	0.	5195.	7.821	543.8	1823.60	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1823.60 ELREA= 1823.60

57550.000	8.30	1822.40	.00	.00	1823.35	.95	.39	.00	1814.10
5195.0	.0	5195.0	.0	.0	664.3	.0	341.8	50.2	1814.10
.69	.00	7.82	.00	.000	.035	.000	.000	1814.10	34.00
.002018	250.	250.	250.	3	0	0	.00	80.00	114.00

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THIS RUN EXECUTED 05OCT98 16:08:02

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HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	37300.000	.00	.00	.00	1722.60	5993.00	1728.58	1728.58	1731.08	143.26	12.71	471.64	500.71
*	37350.000	50.00	1737.40	1733.50	1722.60	5993.00	1728.58	.00	1731.08	112.14	9.69	618.31	565.94
	37500.000	150.00	.00	.00	1722.77	5993.00	1730.90	.00	1732.28	58.71	9.42	636.09	782.12
	37690.000	190.00	.00	.00	1723.00	5993.00	1731.66	.00	1734.02	102.83	12.32	486.44	590.98
	37890.000	200.00	.00	.00	1723.70	5993.00	1734.74	.00	1735.62	53.95	7.50	798.65	815.94
	38080.000	190.00	.00	.00	1724.40	5993.00	1735.82	.00	1736.44	33.84	6.32	948.78	1030.15
	38280.000	200.00	.00	.00	1724.70	5993.00	1736.66	.00	1736.96	18.41	4.43	1352.90	1396.91
	38480.000	200.00	.00	.00	1724.70	5993.00	1736.95	.00	1737.32	15.23	4.85	1235.13	1535.58
	38580.000	100.00	1740.50	1729.80	1721.60	5993.00	1737.80	.00	1737.94	1.02	3.03	1979.25	5941.64
	38630.000	50.00	.00	.00	1721.80	5993.00	1737.78	.00	1737.96	1.29	3.39	1766.50	5267.61
	39020.000	390.00	.00	.00	1723.90	5993.00	1737.79	.00	1738.05	2.22	4.07	1472.19	4021.55
	39410.000	390.00	.00	.00	1725.30	5993.00	1737.84	.00	1738.17	3.29	4.64	1290.58	3303.16
	39830.000	420.00	.00	.00	1727.10	5993.00	1737.91	.00	1738.40	5.91	5.64	1063.37	2466.21
*	40230.000	400.00	.00	.00	1729.00	5993.00	1738.03	.00	1738.82	12.11	7.13	840.53	1722.10

•	40630.000	400.00	.00	.00	1730.80	5993.00	1738.38	.00	1739.63	24.80	8.99	666.66	1203.45
	41030.000	400.00	.00	.00	1732.70	5993.00	1739.15	.00	1740.99	35.77	10.87	551.20	1001.99
	41230.000	200.00	.00	.00	1733.50	5993.00	1740.86	.00	1741.41	8.03	5.97	1004.03	2115.42

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	41330.000	100.00	1749.90	1748.40	1734.09	5993.00	1740.94	.00	1742.42	43.48	9.74	615.06	908.83
	41550.000	220.00	.00	.00	1735.64	5993.00	1742.12	.00	1743.28	33.40	8.64	693.25	1036.98
	41790.000	240.00	.00	.00	1735.60	5993.00	1742.56	.00	1744.64	63.92	11.55	518.87	749.58
	42190.000	400.00	.00	.00	1737.20	5993.00	1744.99	.00	1747.04	56.46	11.48	522.26	797.57
	42580.000	390.00	.00	.00	1739.47	5993.00	1747.39	.00	1748.79	34.23	9.50	630.91	1024.40
	42945.000	365.00	.00	.00	1739.49	5993.00	1748.64	.00	1750.02	33.22	9.44	635.14	1039.79
	43360.000	415.00	.00	.00	1741.31	5993.00	1750.00	.00	1751.45	34.48	9.67	619.49	1020.56
	43750.000	390.00	.00	.00	1742.81	5993.00	1751.34	.00	1752.87	37.16	9.92	603.91	983.09
	44160.000	410.00	.00	.00	1744.05	5993.00	1753.09	.00	1754.01	19.84	7.73	774.85	1345.40
	44300.000	140.00	.00	.00	1744.09	5993.00	1753.63	.00	1754.27	13.76	6.45	929.82	1615.60
	44430.000	130.00	1766.00	1762.00	1744.60	5993.00	1753.73	.00	1754.37	13.57	6.42	933.83	1627.13
*	44660.000	230.00	.00	.00	1744.00	5993.00	1753.37	1753.37	1755.79	84.15	12.48	480.27	653.31
*	44850.000	190.00	.00	.00	1745.50	5993.00	1755.11	1755.11	1757.49	84.77	12.40	483.50	650.93
*	45130.000	280.00	.00	.00	1746.90	5993.00	1757.76	.00	1758.77	23.79	8.06	743.84	1228.73
	45440.000	310.00	.00	.00	1748.50	5993.00	1758.22	.00	1759.94	42.12	10.52	569.60	923.42
	45740.000	300.00	.00	.00	1748.40	5993.00	1759.76	.00	1761.00	27.63	8.95	669.41	1140.20
	46140.000	400.00	.00	.00	1749.60	5993.00	1760.84	.00	1762.14	28.44	9.17	653.86	1123.71
	46350.000	210.00	.00	.00	1750.40	5993.00	1761.37	.00	1762.86	35.22	9.78	612.55	1009.84
	46640.000	290.00	.00	.00	1752.20	5993.00	1762.47	.00	1763.86	33.41	9.47	632.52	1036.82
	46930.000	290.00	.00	.00	1753.20	5993.00	1763.48	.00	1764.75	27.26	9.05	662.12	1147.76
*	47100.000	170.00	.00	.00	1754.50	5993.00	1764.40	.00	1764.92	2.31	5.77	1038.40	3941.22
	47340.000	240.00	.00	.00	1756.20	5993.00	1764.32	.00	1765.15	4.63	7.34	816.82	2784.82
*	47440.000	100.00	1772.80	1771.30	1759.50	5993.00	1764.43	.00	1766.68	22.63	12.02	498.41	1259.78
*	47550.000	110.00	.00	.00	1762.00	5993.00	1767.01	1767.01	1769.35	23.26	12.25	489.12	1242.67
*	47610.000	60.00	.00	.00	1763.50	5993.00	1768.50	1768.50	1770.85	23.48	12.29	487.60	1236.89
*	47800.000	190.00	.00	.00	1765.70	5993.00	1773.26	1773.26	1775.77	81.20	12.72	471.08	665.08

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	48040.000	240.00	.00	.00	1767.20	5993.00	1775.69	.00	1777.05	32.12	9.34	641.76	1057.37
	48220.000	180.00	.00	.00	1767.50	5993.00	1775.97	.00	1778.00	56.17	11.46	523.16	799.65
•	48410.000	190.00	.00	.00	1766.60	5993.00	1777.62	.00	1778.82	28.27	8.81	680.52	1127.24
	48700.000	290.00	.00	.00	1767.80	5993.00	1778.40	.00	1779.59	25.06	8.76	684.52	1197.10
	49100.000	400.00	.00	.00	1769.40	5993.00	1779.43	.00	1780.59	24.37	8.62	695.53	1213.94
*	49295.000	195.00	.00	.00	1770.30	5993.00	1780.39	.00	1780.96	11.67	6.08	986.27	1754.23
	49390.000	95.00	.00	.00	1770.90	5993.00	1780.50	.00	1781.07	11.48	6.10	983.01	1769.04
	49495.000	105.00	1784.60	1782.50	1771.80	5993.00	1780.56	.00	1781.10	10.19	5.90	1016.61	1877.51
*	49670.000	175.00	.00	.00	1771.10	5993.00	1780.32	.00	1781.62	30.90	9.15	654.93	1078.18
	49870.000	200.00	.00	.00	1770.70	5993.00	1780.83	.00	1782.39	39.13	10.03	597.47	958.07
	50070.000	200.00	.00	.00	1771.20	5993.00	1781.48	.00	1783.38	51.30	11.06	542.02	836.71
	50270.000	200.00	.00	.00	1772.80	5993.00	1782.51	.00	1784.44	53.77	11.16	536.94	817.28
*	50470.000	200.00	.00	.00	1773.90	5993.00	1783.85	1783.85	1786.45	84.23	12.93	463.62	653.01
	50670.000	200.00	.00	.00	1774.00	5993.00	1785.64	.00	1787.84	55.57	11.91	503.37	803.94
*	50870.000	200.00	.00	.00	1779.10	5993.00	1786.75	1786.75	1789.45	79.00	13.17	455.11	674.29

*	51080.000	210.00	.00	.00	1777.10	5993.00	1789.21	.00	1790.58	31.88	9.37	639.26	1061.34
	51300.000	220.00	.00	.00	1777.30	5993.00	1790.08	.00	1791.15	19.51	8.28	723.44	1356.89
	51490.000	190.00	.00	.00	1777.40	5993.00	1790.46	.00	1791.64	29.91	8.72	687.60	1095.85
*	51690.000	200.00	.00	.00	1778.10	5993.00	1790.46	1790.46	1793.48	88.13	13.94	429.81	638.37
*	51890.000	200.00	.00	.00	1779.70	5993.00	1793.24	.00	1794.55	26.78	9.16	654.45	1158.05
	52100.000	210.00	.00	.00	1780.90	5993.00	1794.03	.00	1795.08	21.67	8.20	730.58	1287.38
*	52300.000	200.00	.00	.00	1784.50	5993.00	1794.15	.00	1795.90	46.87	10.62	564.36	875.36
	52500.000	200.00	.00	.00	1786.80	5993.00	1795.00	.00	1797.08	62.37	11.56	518.29	758.84
	52690.000	190.00	.00	.00	1787.00	5993.00	1796.73	.00	1798.00	33.32	9.05	662.32	1038.22
	52890.000	200.00	.00	.00	1787.50	5993.00	1797.52	.00	1798.57	23.16	8.22	729.28	1245.34
	53080.000	190.00	.00	.00	1789.80	5993.00	1797.96	.00	1799.03	23.95	8.30	722.24	1224.64

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	53280.000	200.00	.00	.00	1788.80	5993.00	1798.63	.00	1799.46	17.57	7.33	817.89	1429.89
	53500.000	220.00	.00	.00	1790.00	5993.00	1799.00	.00	1799.89	20.03	7.57	791.73	1339.15
	53685.000	185.00	.00	.00	1791.10	5993.00	1799.40	.00	1800.29	23.58	7.59	789.60	1234.13
	53865.000	180.00	.00	.00	1792.20	5993.00	1799.70	.00	1800.90	36.10	8.82	679.35	997.47
	53971.000	106.00	1806.70	1805.00	1792.70	5993.00	1799.70	.00	1800.90	51.37	7.30	821.20	836.19
	54200.000	229.00	.00	.00	1793.40	5993.00	1801.38	.00	1802.53	90.34	8.59	697.98	630.52
	54350.000	150.00	.00	.00	1794.10	5993.00	1802.69	.00	1803.84	84.20	8.60	696.55	653.10
	54550.000	200.00	.00	.00	1794.80	5993.00	1804.23	.00	1805.56	82.61	9.25	648.01	659.35
	54740.000	190.00	.00	.00	1795.50	5993.00	1805.71	.00	1807.24	88.25	9.95	602.36	637.95
	54890.000	150.00	.00	.00	1796.00	5993.00	1806.75	.00	1809.34	167.89	12.92	463.74	462.53
	55080.000	190.00	.00	.00	1797.90	5993.00	1810.13	.00	1811.63	83.34	9.84	609.16	656.46
*	55565.000	485.00	.00	.00	1800.00	5993.00	1812.92	.00	1813.48	20.16	6.01	1013.37	1334.75
	55950.000	385.00	.00	.00	1801.50	5993.00	1813.72	.00	1814.35	24.12	6.34	945.08	1220.39
*	56265.000	315.00	.00	.00	1804.70	5993.00	1814.51	.00	1815.56	53.51	8.23	728.11	819.23
	56674.000	409.00	.00	.00	1808.20	5993.00	1816.94	.00	1818.25	77.29	9.16	654.36	681.70
	56764.000	90.00	.00	.00	1808.90	5993.00	1817.68	.00	1818.93	72.97	8.98	669.82	701.58
	57102.000	338.00	.00	.00	1812.20	5195.00	1820.26	.00	1821.51	80.27	8.95	580.65	579.85
	57300.000	198.00	.00	.00	1814.00	5195.00	1821.82	.00	1822.96	66.37	8.55	607.85	637.70
*	57550.000	250.00	1823.60	1822.10	1814.10	5195.00	1822.40	.00	1823.35	20.18	7.82	664.27	1156.54

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SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	37300.000	5993.00	1728.58	.00	.00	.00	95.16	.00
*	37350.000	5993.00	1728.58	.00	.00	.00	111.31	50.00
	37500.000	5993.00	1730.90	.00	2.32	.00	102.15	150.00
	37690.000	5993.00	1731.66	.00	.76	.00	79.14	190.00
	37890.000	5993.00	1734.74	.00	3.08	.00	105.09	200.00
	38080.000	5993.00	1735.82	.00	1.08	.00	112.68	190.00
	38280.000	5993.00	1736.66	.00	.83	.00	154.89	200.00
	38480.000	5993.00	1736.95	.00	.29	.00	140.59	200.00
*	38580.000	5993.00	1737.80	.00	.85	.00	164.73	100.00
	38630.000	5993.00	1737.78	.00	-.02	.00	144.06	50.00
	39020.000	5993.00	1737.79	.00	.01	.00	137.56	390.00
	39410.000	5993.00	1737.84	.00	.05	.00	133.39	390.00

	39830.000	5993.00	1737.91	.00	.07	.00	127.98	420.00
*	40230.000	5993.00	1738.03	.00	.12	.00	122.44	400.00
	40630.000	5993.00	1738.38	.00	.35	.00	117.94	400.00
	41030.000	5993.00	1739.15	.00	.77	.00	96.14	400.00
*	41230.000	5993.00	1740.86	.00	1.71	.00	144.98	200.00
*	41330.000	5993.00	1740.94	.00	.08	.00	116.89	100.00
	41550.000	5993.00	1742.12	.00	1.18	.00	128.57	220.00
	41790.000	5993.00	1742.56	.00	.44	.00	100.25	240.00
	42190.000	5993.00	1744.99	.00	2.43	.00	93.96	400.00
	42580.000	5993.00	1747.39	.00	2.40	.00	102.95	390.00
	42945.000	5993.00	1748.64	.00	1.25	.00	101.48	365.00
	43360.000	5993.00	1750.00	.00	1.35	.00	99.14	415.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	43750.000	5993.00	1751.34	.00	1.34	.00	98.44	390.00
	44160.000	5993.00	1753.09	.00	1.75	.00	114.22	410.00
	44300.000	5993.00	1753.63	.00	.54	.00	137.19	140.00
	44430.000	5993.00	1753.73	.00	.10	.00	138.31	130.00
*	44660.000	5993.00	1753.37	.00	-.35	.00	102.95	230.00
*	44850.000	5993.00	1755.11	.00	1.73	.00	105.34	190.00
*	45130.000	5993.00	1757.76	.00	2.65	.00	119.07	280.00
	45440.000	5993.00	1758.22	.00	.46	.00	93.70	310.00
	45740.000	5993.00	1759.76	.00	1.53	.00	101.88	300.00
	46140.000	5993.00	1760.84	.00	1.08	.00	98.26	400.00
	46350.000	5993.00	1761.37	.00	.54	.00	98.24	210.00
	46640.000	5993.00	1762.47	.00	1.10	.00	102.16	290.00
	46930.000	5993.00	1763.48	.00	1.01	.00	97.11	290.00
*	47100.000	5993.00	1764.40	.00	.92	.00	119.71	170.00
	47340.000	5993.00	1764.32	.00	-.08	.00	110.21	240.00
*	47440.000	5993.00	1764.43	.00	.12	.00	107.83	100.00
*	47550.000	5993.00	1767.01	.00	2.58	.00	105.09	110.00
*	47610.000	5993.00	1768.50	.00	1.49	.00	105.00	60.00
*	47800.000	5993.00	1773.26	.00	4.76	.00	95.67	190.00
*	48040.000	5993.00	1775.69	.00	2.44	.00	102.33	240.00
	48220.000	5993.00	1775.97	.00	.27	.00	93.72	180.00
*	48410.000	5993.00	1777.62	.00	1.65	.00	106.91	190.00
	48700.000	5993.00	1778.40	.00	.79	.00	98.96	290.00
	49100.000	5993.00	1779.43	.00	1.03	.00	101.45	400.00
*	49295.000	5993.00	1780.39	.00	.96	.00	141.41	195.00
	49390.000	5993.00	1780.50	.00	.11	.00	136.89	95.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	49495.000	5993.00	1780.56	.00	.06	.00	137.24	105.00
	49670.000	5993.00	1780.32	.00	-.24	.00	105.41	175.00
	49870.000	5993.00	1780.83	.00	.51	.00	98.57	200.00
	50070.000	5993.00	1781.48	.00	.66	.00	94.99	200.00
	50270.000	5993.00	1782.51	.00	1.03	.00	94.94	200.00
*	50470.000	5993.00	1783.85	.00	1.35	.00	92.33	200.00
	50670.000	5993.00	1785.64	.00	1.79	.00	82.28	200.00

*	50870.000	5993.00	1786.75	.00	1.11	.00	85.68	200.00
	51080.000	5993.00	1789.21	.00	2.46	.00	101.22	210.00
	51300.000	5993.00	1790.08	.00	.87	.00	93.99	220.00
	51490.000	5993.00	1790.46	.00	.37	.00	112.35	190.00
*	51690.000	5993.00	1790.46	.00	.01	.00	73.72	200.00
*	51890.000	5993.00	1793.24	.00	2.78	.00	91.60	200.00
	52100.000	5993.00	1794.03	.00	.79	.00	103.15	210.00
*	52300.000	5993.00	1794.15	.00	.12	.00	98.16	200.00
	52500.000	5993.00	1795.00	.00	.85	.00	98.77	200.00
	52690.000	5993.00	1796.73	.00	1.73	.00	119.46	190.00
	52890.000	5993.00	1797.52	.00	.80	.00	120.58	200.00
	53080.000	5993.00	1797.96	.00	.43	.00	110.58	190.00
	53280.000	5993.00	1798.63	.00	.67	.00	120.47	200.00
	53500.000	5993.00	1799.00	.00	.37	.00	121.99	220.00
	53685.000	5993.00	1799.40	.00	.40	.00	138.34	185.00
	53865.000	5993.00	1799.70	.00	.30	.00	130.08	180.00
	53971.000	5993.00	1799.70	.00	.00	.00	124.90	106.00
	54200.000	5993.00	1801.38	.00	1.69	.00	129.93	229.00
	54350.000	5993.00	1802.69	.00	1.30	.00	122.31	150.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	54550.000	5993.00	1804.23	.00	1.54	.00	99.01	200.00
	54740.000	5993.00	1805.71	.00	1.48	.00	85.35	190.00
	54890.000	5993.00	1806.75	.00	1.04	.00	71.28	150.00
*	55080.000	5993.00	1810.13	.00	3.38	.00	83.75	190.00
*	55565.000	5993.00	1812.92	.00	2.79	.00	134.24	485.00
	55950.000	5993.00	1813.72	.00	.80	.00	96.72	385.00
*	56265.000	5993.00	1814.51	.00	.79	.00	94.17	315.00
	56674.000	5993.00	1816.94	.00	2.43	.00	96.18	409.00
	56764.000	5993.00	1817.68	.00	.73	.00	103.98	90.00
	57102.000	5195.00	1820.26	.00	2.58	.00	90.84	338.00
	57300.000	5195.00	1821.82	.00	1.56	.00	83.38	198.00
*	57550.000	5195.00	1822.40	.00	.58	.00	80.00	250.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 37300.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 37350.000 PROFILE= 1 HYDRAULIC JUMP D.S.

WARNING SECNO= 38580.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 40230.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 40630.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 41230.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

RNING SECNO= 41330.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 44660.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 44660.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 44660.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 44850.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 44850.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

WARNING SECNO= 45130.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

```
 WARNING SECNO=  47100.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

  WARNING SECNO=  47440.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

   AUTION SECNO=  47550.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=  47550.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=  47550.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION SECNO=  47610.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=  47610.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=  47610.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION SECNO=  47800.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=  47800.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=  47800.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=  48040.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=  48410.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=  49295.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=  49670.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=  50470.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=  50470.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=  50470.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
1
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 CAUTION SECNO=  50870.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=  50870.000  PROFILE=  1  MINIMUM SPECIFIC ENERGY

 WARNING SECNO=  51080.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 CAUTION SECNO=  51690.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
 CAUTION SECNO=  51690.000  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION SECNO=  51690.000  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 WARNING SECNO=  51890.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=  52300.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=  55080.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

   RNING SECNO=  55565.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=  56265.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 WARNING SECNO=  57550.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

Quality
Assurance

Study Contractor: Nolte & Associates, Inc.

QUALITY ASSURANCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Attachment A: Roughness Coef. Ck.		Pg. 2
Las Vegas Wash	Attachment D: Agreement Table		Pg. 3-10
Las Vegas Wash	Attachment G: Hydraulics Review		Pg. 11-13
Las Vegas Wash	LVDUCK.DAT CHECK-2: NT Module		Pg. 14-15
Las Vegas Wash	LVDUCK.DAT CHECK-2: XSEC Module		Pg. 16-18

ATTACHMENT

Page 1 of 1

Engineer: [illegible]
Study: [illegible]

Date 7-9-96
Stream: [illegible]

ROUGHNESS COEFFICIENT CHECK

SECNO	XNL	XNCH	XNR	CCHV	CEHV	REMARKS
100	.035	.03	.035	.1	.3	[illegible]
210	.04	.035	.04			
216	.045	.045	.045			
228	.045	.04	.045			
[illegible]	.035	.035	.035			
270	.045	.045	.045			
310	.032	.032	.032		.4	[illegible]
* 326	.045	.035	.045	.1	.3	INCONSISTENT W/ [illegible]
334	.04	.035	.04			
354	.03	.03	.03			
360	.04	.035	.04			
* 368	.03	.04	.03			[illegible]
416	.04	.035	.04			
432	.03	.025	.03			
438	"	"	"	.2	.4	[illegible]
442	.03	.025	.03	.1	.3	
458	.05	.04	.05			
* 468				.3	.5	[illegible]
* 479.1				.5	.5	[illegible]

Exhibit 2

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE 1 OF 2

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
[illegible]	00				—						N/A			1420.43
	125				1		10	1		125	254			1425.26
	202				226		200	225		210	444			1423.78
	304				350		310	524		350	484			1425.82
	316				1160		220	410		270	340			1427.72
	358				1503		330	443		190	195			1426.92
	410				1972		370	368		250	235			1429.72
	432				2443	2450	400	471		150	280			1428.74
	464				3047		390	590		85	150			1429.18
	516				3593		570	560		180	177			1432.3
	558				4413		550	830		250	484			1435.21
	600				5161		740	738		300				1447.77
	622				5672		620	5.1		210				1452.57
	646				6179		510	507		1000				1457.30
	726				6895		420	796		350				1450.40
	778				7538		600	645		530				1466.14
	830				8107		520	569		500				1465.60
	872				8777		470	470		240				1468.89
	934				9404	9400	420	631		150				1474.8.
	996				9981		580	577		190				1478.14
	038				10,574		600	693		530				1477.42
	090				11,125		450	455		[illegible]				1481.57

Exhibit 9

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE 2 OF 8

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	240				10,124	10,130				500	1.4			1461.57
	242				11,758		800	810		400	1			1468.91
	244				12,139		480	460		196	1			1472.39
	246				12,545		600	590		150	1			1480.66
	248				13,020	13,000	500	531		70	4			1489.24
	250				13,914		540	550		350	350			1495.86
	252				14,705		790	751		640	650			1506.22
	254				15,393		350	320		280	280			1510.57
	256				15,803		550	530		250	370			1521.66
	258				16,270		430	446		130	277			1526.66
	260				16,765		420	410		190	N/A			1534.64
	262				17,498		2400	370		430	N/A			1538.08
	264				17,933	17,950	450	455		600	500			1625.35
	266				1,193		930	970		400	29			1526.74
	268				18,593		300	430		60	50			1529.72
	270				19,113		350	350		2240	1800			1534.77
	272				19,828		55	55		1750	1750			1539.09
	274				18,443		43	45		1420	1425			1539.29
	276				17,953		500	530		1000	1000			1540.50
	278				18,595		470	450		650	650			1544.12
	280				24,405		520	560		500	500			1547.06
	282				21,253	21,240	650	530		435	460			1546.97

Exhibit B

ATTACHMENT 2

AGREEMENT TABLE

COMMUNITY [illegible] COUNTY

STREAM Las Vegas Wash / [illegible]

DATE: 11-5-98

PREPARED BY [illegible]

PAGE 2 OF 8

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	240				10,124	[illegible]	800	810		600	[illegible]			1501.57
	242				[illegible]		480	460		400	\			1508.91
	244				[illegible]		640	650		196	[illegible]			1495.53
	246				10,549		500	531		130	[illegible]			1486.66
	248				15,680	15,200	540	540		70	[illegible]			1489.24
	250				15,914		730	731		350	350			1501.62
	252				16,265		650	628		640	[illegible]			1506.22
	254				16,370		520	530		280	280			1510.57
	256				16,603		480	457		250	270			1511.20
	258				16,776		420	410		180	270			1512.66
	260				16,985		2400	370		190	[illegible]			1514.64
	262				17,098		450	455		430	[illegible]			1520.48
	264				17,553	17,550	370	370		600	580			1525.35
	266				17,993		320	470		400	25			1526.74
	268				18,595		350	350		60	50			1525.76
	270				18,773		55	55		220	1500			1524.72
	272				18,826		45	45		1750	1720			1533.09
	274				18,965		500	530		1420	1435			1539.52
	276				19,459		470	450		1950	1900			1546.20
	278				19,965		560	560		650	650			1540.18
	280				20,405		630	530		560	560			1542.06
	282				21,353	21,350				435	440			1544.97

Exhibit B

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM Los Vegas Wash/[illegible] PREPARED BY [illegible] PAGE 2 OF 2

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	240				10,124	10,150				500	[illegible]			1901.57
	242				10,738		800	810		400	[illegible]			1908.91
	244				11,239		430	460		196	[illegible]			1911.32
	246				11,849		640	650		180	[illegible]			1910.66
	248				12,420	12,400	500	531		70	47			1899.24
	250				12,814		542	534		350	350			1897.46
	252				13,205		730	751		640	652			1896.22
	254				13,592		380	378		280	287			1910.57
	256				13,943		520	530		280	277			1911.20
	258				14,278		430	432		130	277			1912.66
	260				14,705		420	40		190	[illegible]			1914.64
	262				15,098		390	370		435	[illegible]			1918.93
	264				15,533	15,550	450	435		600	580			1925.37
	266				1,393		530	570		400	[illegible]			1926.94
	268				16,595		200	670		60	150			1928.76
	270				17,113		350	350		220	1800			1931.72
	272				17,628		55	55		1750	1770			1934.08
	274				18,265		45	55		1600	1635			1938.99
	276				18,873		500	530		1000	1000			1940.30
	278				19,505		470	450		650	650			1944.12
	280				20,405		520	760		560	560			1942.06
	282				21,453	21,140	630	530		435	460			1945.97

Exhibit B

AGREEMENT TABLE

COMMUNITY [illegible] COUNTY

STREAM [illegible]

DATE: 11-2-98

PREPARED BY [illegible]

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	145				985					(950)	490			1045.20
	200				1,013		250	5.7		700	717			1047.10
	252			10,200	1,013		300	245		750	742		1054.3	1050.02
	254				1,059		400	477		(900)	453			1053.05
	256				1,304	1330 1100	500	495		750	734			1042.18
	258				1,346		600	492		5000	552			1038.82
	259				1,396		50	60		5250	553			1050.67
	259.1				12,005		77	75		600	625			1051.18
	260				2,663		50	98		550	570			1056.95
	261				2,117		50	50						
	262			2,670	12,664		270	587		(650)	620			1058 8
	264				13,215	13,150	570	551		(800)	764		1064.2	1064.25
	266				13,675		470	460		500	415			1063.62
	268				14,117		440	434		420	602		!	1059.12
	270				14,344		470	419		650	658			1051.22
	272				15,163		572	571		790	777			1041.80
	274			15 500	15,523		420	414		800	813			1043.37
	276				16,071		500	492		550	545		1070.	1035.17
	278				16,524		470	453		600	582			1026.56
	280				17,136		510	516		(850)	2600			1077.95
	282				17,545	17,530 17,730	517	509		1500	1504			1072.74
	284			15,250	15,257		520	512		(1000)	169			1062.43
										1170	1147		1043.0	1082.92

Exhibit 9

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE 6 OF 8

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	354				16,257					112	64			1581.92
	436				14,642		534	535		100	66			1583.93
	548			12,650	8,550		458	532		150	75		1584.2	1584.73
	670				18,584	14,930	530	527		110	118			1585.53
	772				20,159		480	446		70	70			1586.89
	896				20,267		610	607		170	171			1587.01
	956				21,4		362	556		170	166			1587.83
	978			21,870	21,446		100	170		180	218		1588.4	1588.51
	1000				21,596		90	89		130	124			1588.24
	1002.1				21,725		224	218		190	124			1589.67
	1041				22,465	22,450	320	83		130	201			1589.74
	1132				23,052		350	343		110	147			1588.52
	1174				23,678		320	310		150	158			1589.55
	1206			12,650	23,948		310	303		150	118		1588.7	1589.51
	1256				24,151		320	318		150	148			1589.24
	1315				25,209		220	215		250	145			1593.54
	1412				25,824		502	497		150	170			1593.89
	1418				25,941	25,930	320	322		100	147			1596.39
	1546				26,334		320	314		100	97			1599.69
	1618			14,610	26,928		220	220		90	82		1600.2	1600.61
	1750				27,178		320	320		100	102			1604.67
	1822				27,499		520	519		100	95			1605.69

Exhibit B

All measurements are approximate

2Bb9 CID32003 001

AGREEMENT TABLE

COMMUNITY [illegible] COUNTY

STREAM [illegible]

DATE: [illegible]

PREPARED BY [illegible]

PAGE 7 OF 8

Physical Feature	Mi x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
[illegible]	522				25,497					100	95			1765.39
	824			25,955	26,955		270	260		320	243		[illegible]	1767.92
	[illegible]				[illegible]	[illegible]	180	185		300	340			1769.17
	1,269				27,100		130	102		110	108			1771.87
	450				28,555		210	540		1500	502			1773.25
	1,537				29,455		520	494		400	448			1775.85
	1,956			27,455	31,949		50	26		1200	55		1776.6	1776.50
	457				32,377			1		135	155			1776.37
	568.1				32,775		30	34		135	135			1778.91
	640				33,182		1	1		140	132			1778.50
	148.1				33,787		30	41		503	43			1779.47
	24.				34,194		400	465		1500	134			1779.50
	642				[illegible]	[illegible]	350	277		520	514			1780.58
	1,116			28,955	35,839		390	374		2300	295	1	1781.6	1780.61
	1,456				35,269		580	545		(2200)	188			1782.33
	148				38,814		520	527		1600	215			1785.23
	350				39,161		530	517		2400	213			1786.62
	152				39,662		550	520		178	170			1788.96
	454				41,462		530	510		178	60			1790.86
	1,054				[illegible]	[illegible]	390	392		1[illegible]	156			1789.81
	458			30,450	42,312		560	567		1[illegible]	154		1786.6	1790.78
	460				42,662					150	33			1791.38

Exhibit 9

ATTACHMENT 2

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE [illegible] OF [illegible]

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	460				[illegible]	[illegible]				150	155			1131.42
	446			32,140	32,141		270	274		144	141		782.0	1132.41
	428.4				32,588		50	47		120	132			1132.16
	419				32,639			1		120	117			1132.13
	410				33,028		100	109		100	111			1132.12
	397.1				33,079		1			150	139			1134.03
	391				33,180		50	41		140	145			1143.01
	372				[illegible]	[illegible]	300	293		120	120			1144.81
	348			32,870	33,377		350	352		120	107		1135.0	1135.16
	328				34,107		420	415		160	12			1136.17
	319.1				34,231		10	40		150	153			1137.38
	288				34,633		90	102		165	173			1139.81
	251				34,665		200	32		180	182		!	1139. ?
	182			33,670	[illegible]	[illegible]	200	205		140	139		1138.3	1139.66

Exhibit 6

ATTACHMENT G --- Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

pg 1/3

No.	DESCRIPTION	STATUS OK	NOK	N/A	COMMENTS
A.	**INPUT DATA**				
1	**STARTING CONDITIONS**				
	Type of Run Appropriate (Sub/super)	✓			
	Starting Elevation Method	✓			[illegible]
	Flows consistent with backup data	✓			
	Manning's n-values	✓			
	Expansion & Contraction Coefficients		✓		[illegible]
	Match to Contiguous Studies	✓			[illegible]
2	**HYDRAULIC MODELING**				
	Cross section location, #,& Orientation	✓			
	Distances between sections	✓			
	Changes in n-values appropriate	✓			
	All bridges/culverts modeled	✓			
	Check ineffective flow areas		✓		[illegible]
	Changes in CCHV & CEHV appropriate	✓			[illegible]
3	**BRIDGE/CULVERT MODELING**				
	Type of bridge routine	✓			
	Cross sections appropriate	✓			
	Changes in NC Card data appropriate		✓		[illegible]
	Ineffective flow areas check		✓		[illegible]
	Coding of Bridge Geometry		✓		[illegible]
	Skewness to flow considered	✓			

ATTACHMENT G— Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

No	DESCRIPTION	STATUS OK	NOK	N/A	COMMENTS
A.	INPUT DATA (continued)				
4	FLOODWAY MODELING				
	Encroachment Method Used	✓			Method 1
	Check for total flowrates	✓			
	Check starting WSEL		✓		[illegible]
5	MISC. INPUT DATA CHECK				
B.	OUTPUT				
1	SUMMARY OF ERRORS				
	Divided flow check	✓			
	Check HV > HVINS	✓			
	Check for Conveyance Change >>	✓			
	Critical Depth check	✓			
	Cross section extensions		✓		[illegible]

ATTACHMENT G--- Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

No.	DESCRIPTION	STATUS OK	NOK	N/A	COMMENTS
B.	OUTPUT DATA (continued)				
2	BRIDGE MODELING				
	Check for submergence from TW		✓		[illegible]
	Type of flow assumed	✓			
3	FLOODWAY DATA OUTPUT				
	Flow rates	✓			
	Check for maximum rise	✓			
	Check for hazardous velocities		?		[illegible]
	Ineffective Flow areas		✓		[illegible]
	Widths within bank stations	✓			
	Wider than 100-year?	✓			
	Contiguous Study Match		?		[illegible]
	Starting water surface elevation		X		[illegible]
4	OTHER OUTPUT DATA				
	Contiguous study match		?		

pg 3/3

CHECK-2 Program: NT Module
Manning's n Value and Transition Loss Coefficient Review

Report File = N:\SD0339\LV\CADD\02\LVDUCK.NT2
Date: 1/22/99
Time: 11:07:15 AM

SECNO	XNL	XNR	XNCH	CCHV	CEHV	Structure
100	0.035	0.035	0.03	0.1	0.3	
105	0.035	0.035	0.03	0.1	0.3	
202	0.035	0.035	0.03	0.1	0.3	
204	0.035	0.035	0.03	0.1	0.3	
206	0.035	0.035	0.03	0.1	0.3	
208	0.035	0.035	0.03	0.1	0.3	
210	0.04	0.04	0.035	0.1	0.3	
212	0.04	0.04	0.035	0.1	0.3	
214	0.04	0.04	0.035	0.1	0.3	
216	0.045	0.045	0.045	0.1	0.3	
218	0.045	0.045	0.045	0.1	0.3	
220	0.045	0.045	0.045	0.1	0.3	
222	0.045	0.045	0.045	0.1	0.3	
224	0.045	0.045	0.045	0.1	0.3	
226	0.045	0.045	0.045	0.1	0.3	
228	0.045	0.045	0.04	0.1	0.3	
230	0.045	0.045	0.04	0.1	0.3	
232	0.045	0.045	0.04	0.1	0.3	
234	0.045	0.045	0.04	0.1	0.3	
236	0.045	0.045	0.04	0.1	0.3	
238	0.045	0.045	0.04	0.1	0.3	
240	0.045	0.045	0.04	0.1	0.3	
242	0.045	0.045	0.04	0.1	0.3	
244	0.045	0.045	0.04	0.1	0.3	
246	0.045	0.045	0.04	0.1	0.3	
248	0.045	0.045	0.04	0.1	0.3	
250	0.045	0.045	0.04	0.1	0.3	
252	0.045	0.045	0.04	0.1	0.3	
254	0.045	0.045	0.04	0.1	0.3	
256	0.045	0.045	0.04	0.1	0.3	
258	0.045	0.045	0.04	0.1	0.3	
260	0.045	0.045	0.04	0.1	0.3	
262	0.045	0.045	0.04	0.1	0.3	
264	0.045	0.045	0.04	0.1	0.3	
266	0.045	0.045	0.04	0.1	0.3	
268	0.045	0.045	0.04	0.1	0.3	
270	0.045	0.045	0.04	0.1	0.3	
272	0.035	0.035	0.035	0.1	0.3	
274	0.035	0.035	0.035	0.1	0.3	
276	0.045	0.045	0.045	0.1	0.3	
278	0.045	0.045	0.045	0.1	0.3	
280	0.045	0.045	0.045	0.1	0.3	
282	0.045	0.045	0.045	0.1	0.3	
284	0.045	0.045	0.045	0.1	0.3	
286	0.045	0.045	0.045	0.1	0.3	
288	0.045	0.045	0.045	0.1	0.3	
292	0.045	0.045	0.045	0.1	0.3	
294	0.045	0.045	0.045	0.1	0.3	
296	0.045	0.045	0.045	0.1	0.3	
298	0.045	0.045	0.045	0.1	0.3	
300	0.045	0.045	0.045	0.1	0.3	
302	0.045	0.045	0.045	0.1	0.3	
304	0.045	0.045	0.045	0.1	0.3	
306	0.045	0.045	0.045	0.1	0.3	
500	0.045	0.045	0.045	0.1	0.3	
502	0.045	0.045	0.045	0.1	0.3	
504	0.045	0.045	0.045	0.1	0.3	
506	0.045	0.045	0.045	0.1	0.3	
508	0.045	0.045	0.045	0.1	0.3	
510	0.022	0.022	0.022	0.3	0.5	

------Summary of Statistics------

	Minimum	Maximum
Left Overbank N Value:	0.022	0.045
Right Overbank N Value:	0.022	0.045

```
Channel          N Value:      0.022     0.045
Contraction Coefficient:       0.1       0.3
Expansion   Coefficient:       0.3       0.5


------Roughness Coefficient Check------

SECNO:  100
NT RC 01  Left overbank n value is less than 0.04

SECNO:  100
NT RC 03  Right overbank n value is less than 0.04

SECNO:  105
NT RC 01  Left overbank n value is less than 0.04

SECNO:  105
NT RC 03  Right overbank n value is less than 0.04

SECNO:  202
NT RC 01  Left overbank n value is less than 0.04

SECNO:  202
NT RC 03  Right overbank n value is less than 0.04

SECNO:  204
NT RC 01  Left overbank n value is less than 0.04

SECNO:  204
NT RC 03  Right overbank n value is less than 0.04

SECNO:  206
NT RC 01  Left overbank n value is less than 0.04

SECNO:  206
NT RC 03  Right overbank n value is less than 0.04

SECNO:  208
NT RC 01  Left overbank n value is less than 0.04

SECNO:  208
NT RC 03  Right overbank n value is less than 0.04

SECNO:  272
NT RC 01  Left overbank n value is less than 0.04

SECNO:  272
NT RC 03  Right overbank n value is less than 0.04

SECNO:  274
NT RC 01  Left overbank n value is less than 0.04

SECNO:  274
NT RC 03  Right overbank n value is less than 0.04

SECNO:  510
NT RC 01  Left overbank n value is less than 0.04

SECNO:  510
NT RC 03  Right overbank n value is less than 0.04

SECNO:  510
NT RC 05  Channel n value is less than 0.025


------NC and NH records Check------


------Transition Coefficient check------

SECNO:  510
NT TL 03  Contraction loss coefficient of  0.3  and expansion loss
          coefficient of  0.5  was used. However this cross section
          is not at a structure. Contraction loss coefficient of .1
          and expansion loss coefficient of .3 should be used.


------Roughness Coefficient Check at Structures------
```

```
------Special Notes and Messages check------

---End Program---
```

CHECK-2 Program, XSEC Module
Cross Section Location and Alignment Review

Report File = N:\SD0339\LV\CADD\02\LVDUCK.XS2
Date: 1/22/99
Time: 11:07:17 AM

SECNO	Xlob	Xrob	Xlch	CHWID	Topwid	Structure Flow Type
100	0.00	0.00	0.00	254.20	254.10	C
105	1.00	1.00	1.00	242.00	254.00	
202	240.00	210.00	225.00	736.60	571.42	
204	420.00	450.00	524.00	965.40	461.94	
206	379.00	400.00	410.00	341.60	278.28	E
208	401.00	440.00	443.00	195.00	188.28	C
210	400.00	350.00	369.00	285.00	281.11	
212	470.00	400.00	471.00	280.00	263.29	
214	515.00	490.00	590.00	180.00	163.87	
216	532.00	465.00	560.00	70.10	356.94	
218	520.00	460.00	830.00	377.00	208.93	C
220	480.00	503.00	738.00	361.90	353.15	
222	420.00	530.00	511.00	298.10	289.25	C
224	495.00	440.00	507.00	300.00	285.56	
226	300.00	500.00	796.00	458.60	413.13	C
228	440.00	560.00	615.00	451.00	432.52	
230	540.00	450.00	513.00	300.00	285.26	
232	460.00	445.00	470.00	384.80	192.10	
234	360.00	265.00	431.00	215.00	192.19	C
236	540.00	550.00	577.00	230.00	209.02	
238	450.00	345.00	693.00	755.40	731.85	
240	438.00	500.00	455.00	550.00	525.70	
242	590.00	500.00	810.00	140.60	391.34	C
244	310.00	410.00	460.00	245.00	226.66	
246	500.00	520.00	550.00	150.00	136.83	
248	490.00	530.00	531.00	244.90	131.39	
250	580.00	584.00	834.00	73.80	409.57	
252	500.00	530.00	791.00	392.90	378.03	
254	490.00	380.00	628.00	240.40	460.46	
256	545.00	450.00	530.00	320.70	440.26	
258	370.00	457.00	435.00	224.70	317.21	
260	335.00	450.00	410.00	359.00	272.00	
262	350.00	410.00	390.00	520.00	516.38	C
264	560.00	400.00	435.00	552.50	678.33	
266	450.00	330.00	370.00	290.00	634.90	D
268	380.00	350.00	490.00	359.60	892.19	D,C
270	650.00	280.00	380.00	677.00	1282.11	
272	55.00	55.00	55.00	2712.00	1948.44	C
274	35.00	35.00	35.00	499.00	1442.81	
276	80.00	600.00	590.00	265.00	1138.61	
278	280.00	600.00	450.00	48.40	1236.25	
280	320.00	410.00	560.00	62.00	1023.72	C
282	363.00	330.00	590.00	70.00	1266.81	
284	450.00	490.00	535.00	47.00	1433.57	
286	450.00	450.00	480.00	101.00	1163.46	D,C
288	530.00	520.00	580.00	90.00	1181.41	C
292	700.00	690.00	835.00	72.00	614.24	D
294	450.00	540.00	550.00	181.50	728.90	D
296	181.00	348.00	360.00	317.00	315.24	
298	550.00	520.00	660.00	220.00	570.01	
300	580.00	410.00	540.00	220.00	176.82	
302	400.00	520.00	490.00	126.00	819.12	C
304	375.00	510.00	515.00	181.60	950.56	
306	120.00	310.00	300.00	468.60	1393.59	
500	720.00	320.00	450.00	1205.86	858.62	C
502	1070.00	1030.00	1100.00	1257.60	1460.07	D
504	940.00	950.00	945.00	1105.82	1189.43	D
506	1100.00	1100.00	1100.00	1369.34	1984.72	
508	770.00	730.00	750.00	1763.24	1688.38	D
510	1150.00	570.00	840.00	4461.00	2659.71	C

XS IF 04 D = divided flow
XS IF 05 E = extended cross section
XS IF 06 C = critical depth
XS IF 07 S = X5 record

-----Distance Check-----

----Channel Width Check----

SECNO: 202
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 206
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 216
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 218
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 238
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 242
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 250
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 252
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 272
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 274
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 278
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 286
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 294
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 306
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 500
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

SECNO: 510
XS CW 02 Channel width changes by a factor of two when compared to the the downstream cross section.

----Spacing Check----

XS SP 01 Change in HV > 0.5; (Kratio < 0.7 or Kratio > 1.4);
(DEPTH Ratio < 0.9 or DEPTH Ratio > 1.1);
(TOPWID Ratio < 0.5 or TOPWID Ratio > 2); and XLCH2 > 500 ft.
Additional cross sections may need to be added between 216 and 214

SECNO:	214	216	Diff.	Ratio
HV:	2.12	0.37	1.75	
.01K:	1333.8	3122.39		.43

DEPTH:	6.18	11.31	.55
TOPWID:	163.87	356.94	2.18
XLCH:		560	

XS SP 01 Change in HV > 0.5; (Kratio < 0.7 or Kratio > 1.4);
(DEPTH Ratio < 0.9 or DEPTH Ratio > 1.1);
(TOPWID Ratio < 0.5 or TOPWID Ratio > 2); and XLCH2 > 500 ft.
Additional cross sections may need to be added between 300 and 298

SECNO:	298	300	Diff.	Ratio
HV:	0.59	1.67	1.08	
.01K:	2414.41	1236.17		1.95
DEPTH:	9.11	10.4		.88
TOPWID:	570.01	176.82		.31
XLCH:		540		

----Ineffective Flow Area----

----Location Check----

----Discharge Check----

XS DC 02 Constant discharge used for the entire profile.

----Starting WSEL Check----

XS SW 05 Starting WSEL is computed from critical depth for the first profile.

---End Program---

Study Contractor: Nolte & Associates, Inc.

QUALITY ASSURANCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Attachment A: Roughness Coef. Ck.		Pg. 2
Las Vegas Wash	Attachment D: Agreement Table		Pg. 3-10
Las Vegas Wash	Attachment G: Hydraulics Review		Pg. 11-13
Las Vegas Wash	LV.DAT CHECK-2: NT Module		Pg. 14-18
Las Vegas Wash	LV.DAT CHECK-2: XSEC Module		Pg. 19-21
Las Vegas Wash	LV.DAT CHECK-2: Bridge Module		Pg. 22-27

ATTACHMENT 4

Page 1 of 1

Engineer: [illegible] Date -9-98

Study: [illegible] Stream: [illegible]

ROUGHNESS COEFFICIENT CHECK

SECNO	XNL	XNCH	XNR	CCHV	CEHV	REMARKS
100	.035	.03	.035	.1	.3	[illegible]
210	.04	.035	.04	↓	↓	
216	.045	.045	.045			
228	.045	.04	.045			
[illegible]	.035	.035	.035			
270	.045	.045	.045	↓	↓	
310	.033	.022	.032	.3	.4	CHECK OK
* 406	.045	.035	.045	.1	.3	INTERPOLATED W/ EXCIDAT
354	.04	.035	.04	↓	↓	
359	.03	.03	.03			
360	.04	.035	.04	↓	↓	
* 390	.03	.04	.03	.1	.3	INTERPOLATED W/ EXCIDAT USING VALUE FOR
416	.04	.035	.04			
432	.03	.025	.03			
438	"	"	"	.2	.4	[illegible]
442	.03	.025	.03	.1	.3	
458	.05	.04	.05			
* 469	[illegible]			.3	.5	INTERPOLATED FROM CHANNEL TO OVERBANK VALUES
* 479.1	[illegible]			.3	.5	INTERPOLATED FROM CHANNEL TO OVERBANK VALUES

Exhibit 2

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE [illegible] OF 2

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
[illegible]	[illegible]				—						N/A			[illegible]
	175				1		10	1		[illegible]	254			1423.06
	202				226		230	125		510	[illegible]			1424.13
	204				750		510	524		[illegible]	N/A			[illegible]
	206				1160		420	410		[illegible]	325			1431.92
	208				1603		450	443		140	195			[illegible]
	210				1972		370	368		250	235			1439.77
	212				2403	2404	400	401		[illegible]	280			1428.74
	214				3043		590	590		25	180			1429.18
	216				3593		570	560		180	177			592.5
	218				4413		830	830		250	[illegible]			1445.21
	220				5161		740	738		300				1447.77
	222				5672		520	5.1		210				1452.57
	224				6179		510	507		1300				1435.30
	226				6875		420	496		350				1452.40
	228				7532		680	615		530				1446.14
	230				8103		520	513		200				1454.60
	232				8772		470	470		240				1448.88
	234				9604	9608	420	431		150				1448.8
	236				9981		580	577		190				[illegible]
	238				10,124		630	623		530				[illegible]
	240				10 125		450	455		[illegible]				431.57

EXHIBIT G

AGREEMENT TABLE

COMMUNITY [illegible] DATE: 11-2-98

STREAM Los Juegos Wash/Cross Roads PREPARED BY [illegible] PAGE 2 OF 2

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	240				10,124	2,130				500	[illegible]			1401.57
	242				[illegible]		800	810		400	[illegible]			1408.91
	244				[illegible]		480	460		120	[illegible]			1411.53
	246				12,567		540	550		130	[illegible]			1412.65
	248				13,687	13,000	520	521		70	[illegible]			1419.24
	250				13,914		540	534		200	250			1420.46
	252				14,105		730	751		640	[illegible]			1421.33
	254				[illegible]		330	328		260	[illegible]			1418.57
	256				15,203		520	530		250	[illegible]			1417.20
	258				16,232		480	445		130	277			1412.66
	260				16,765		420	410		190	[illegible]			1406.24
	262				17,098		300	370		430	[illegible]			1410.49
	264				17,532	2,550	450	435		500	500			1425.35
	266				1,323		370	370		470	[illegible]			1424.74
	268				18,385		320	430		60	150			1428.74
	270				12,775		380	280		820	1500			1434.70
	272				19,826		55	55		1750	1720			1439.03
	274				20,269		45	57		1420	[illegible]			1439.29
	276				20,453		500	580		1000	1000			1440.20
	278				20,595		470	450		650	650			[illegible]
	280				20,445		520	720		560	560			1442.06
	282				21,453	21,140	620	530		435	440			1445.97

Exhibit B

2Ba9 CID32003 001

AGREEMENT TABLE

COMMUNITY Clark County

STREAM Las Vegas Wash/Flamingo Wash

DATE: 11-1-95

PREPARED BY [illegible]

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	240				10,124	10,150				600	600			1461.57
	242				10,739		800	810		300	1			1468.91
	244				11,339		480	460		196	1			1472.32
	246				12,019		650	650		150	1			1482.66
	248				13,687	13,700	500	521		30	4			1489.54
	250				13,914		540	550		150	250			1497.86
	252				14,705		790	751		640	650			1506.22
	254				15,393		650	628		280	281			1510.57
	256				15,883		520	530		250	370			1511.20
	258				16,275		490	495		130	277			1512.66
	260				16,765		420	410		190	196			1513.64
	262				17,098		340	370		435	444			1520.49
	264				17,533	17,550	450	435		600	580			1525.35
	266				1,783		370	370		400	395			1521.94
	268				18,595		360	430		60	150			1528.76
	270				12,773		350	350		520	1550			1529.77
	272				13,826		55	55		1750	1720			1533.09
	274				13,283		45	45		1620	1450			1539.29
	276				12,333		500	520		1800	1800			1540.30
	278				15,903		470	450		650	650			1540.18
	280				14,448		570	560		560	560			1542.05
	282				21,253	21,260	490	530		435	440			1544.97

Exhibit B

ATTACHMENT 1

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM Los Angeles River/[illegible] PREPARED BY [illegible] PAGE 2 OF 2

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevations		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	240				10,124	[illegible]				540	[illegible]			1501.57
	242				[illegible]		800	810		300	\			1498.91
	244				[illegible]		430	460		190	/			1495.32
	246				12,547		610	550		130				1492.65
	248				13,280	13,270	520	531		70	↓			1489.34
	250				13,812		540	534		350	350			1487.86
	252				14,305		790	751		640	652			1486.22
	254				15,342		550	528		260	280			1510.57
	256				15,803		520	530		250	310			1511.20
	258				16,275		480	492		130	277			1512.66
	260				16,765		420	440		190	196			1516.64
	262				17,198		340	370		430	410			1518.89
	264				17,633	17,650	450	434		500	500			1520.35
	266				1,793		370	370		400	395			1522.94
	268				18,383		320	430		60	150			1528.74
	270				18,773		350	280		320	1800			1529.77
	272				19,220		55	55		1750	1750			1530.09
	274				19,663		45	45		1600	1650			1538.99
	276				20,453		600	590		1550	1500			1540.30
	278				19,905		470	450		650	650			1540.14
	280				24,448		570	760		550	550			1542.06
	282				21,153	21,140	490	530		435	440			1545.97

Exhibit 9

AGREEMENT TABLE

COMMUNITY _____ DATE: 11-7-96

STREAM _____ PREPARED BY _____ PAGE 5 OF 5

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	348				985					950	990			1045.20
	350				1,015		30	5.7		700	717			1047.10
	352			16,6.0	1,019		210	245		730	747		1050.1	1050.02
	354				1,059		170	477		950	955			1055.05
	356				1,304	1330 1300	500	515		730	746			1062.18
	358				1,560		600	492		5,000	5052			1068.52
	359				1,726		50	40		550	553			1058.67
	359.1				1,765		75	75		620	632			1059.18
	360				2,663		60	62		570	570			1056.75
	361				2,117		50	54		620	620			1058.81
	362			2,070	2,624		270	247		800	784		1064.2	1064.25
	364				3,215	1350 1350	570	551		500	515			1067.62
	366				3,675		470	460		420	402			1059.12
	368				4,115		440	434		650	650			1071.22
	370				4,714		490	419		730	777			1081.80
	372				5,155		470	571		830	818			1075.35
	374			15 560	5,577		420	414		550	535		1070.	1075.19
	376				6,091		560	492		600	592			1076.86
	378				6,524		470	453		780	760			1077.35
	380				17,136		510	516		1600	1048			1073.74
	382				17,525	1330 1330	517	509		1700	159			1082.11
	384			18,750	15,257		520	512		170	164		1083.0	1081.92

Exhibit 9

AGREEMENT TABLE

COMMUNITY [illegible] DATE: 11-2-98

STREAM [illegible] PREPARED BY [illegible] PAGE 6 OF 8

Physical Feature	# X-sec	abc X-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	354				16,957					170	64			1281.72
	456				19,592		532	535		160	126			1285.72
	568			17,650	8,050		450	458		150	135		1284.7	1284.77
	578				19,482		530	532		110	114			1285.63
	322				20,159		680	677		70	70			1286.39
	294				20,267		450	448		130	131			1287.41
	336				21,4		530	527		110	106			1287.55
	378			21,470	21,[illegible]		382	382		160	218		1288.4	1288.31
	400				21,536		100	170		130	124			1286.24
	402.1				21,733		90	89		150	154			1289.67
	401				[illegible]	[illegible]	220	215		130	101			1286.74
	432				23,050		80	83		110	147			1290.52
	444				[illegible]		250	262		150	158			1286.55
	506			22,620	22,648		520	570		150	148		1288.7	1286.51
	305				22,651		510	503		154	148			1289.24
	410				23,209		320	318		250	242			1293.64
	432				23,[illegible]		220	215		150	170			1291.69
	414				23,[illegible]	[illegible]	500	497		100	104			1276.87
	424				24,554		370	372		100	97			1278.63
	418			24,610	24,[illegible]		275	274		90	82		1288.6	1279.61
	425				25,178		220	570		100	102			1284.63
	422				25,497		220	219		150	95			1285.59

Exhibit B

AGREEMENT TABLE

COMMUNITY [illegible] COUNTY

STREAM [illegible]

DATE: [illegible]

PREPARED BY [illegible]

PAGE 7 OF 8

Physical Feature	## x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
[illegible]	422				25,497					100 -	35			1765.36
	424			25,950	25,955					340	241			
	426				[illegible]					350	364			1719.15
	428				26,100					210	258			
	430				26,693					[illegible]	302			
	432				27,465					420	415			1715.88
	434			27,950	27,949					150	55		1716.6	1716.36
	436				27,977					135	152			1716.21
[illegible]	438.1				27,278					135	133			1716.91
	440				28,182					140	132			1718.50
	440.1				28,603					150	143			1719.47
	441				28,714					150	134			1720.10
	442				[illegible]	[illegible]				520	514			1720.58
	444			28,950	28,879					230	245		[illegible]	1720.81
	446				29,249					[illegible]	188			1722.29
	448				29,864					[illegible]	215			1725.23
	450				30,251					200	213			1726.62
	452				30,692					178	170			1728.26
	454				31,442					175	160			1729.86
	456				[illegible]	[illegible]				[illegible]	156			1729.51
	458			30,950	32,818					[illegible]	154		1730.4	1730.59
	460				32,661					150	152			1731.32

Exhibit B

FEMA-[illegible]-[illegible]

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE [illegible] OF [illegible]

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	460				[illegible]	[illegible]				150	153			1731.93
	446			32,940	32,941		270	274		144	141		792.0	1742.41
	446.5				32,985		50	47		130	134			1738.16
	439				32,989			1		120	117			1732.93
	430				33,028		100	109		110	111			1732.72
	427.1				33,079		1	1		160	159			1756.50
	421				33,120		40	41		140	145			1761.81
	412				[illegible]	[illegible]	50	54		130	127			1766.81
	404			33,870	33,877		350	352		120	117		1765.26	1775.26
	398				34,107		420	415		120	12			1736.17
[illegible]	379.1				34,131		10	48		150	153			1751.26
	298				34,439		90	102		165	173			1759.21
	251				34,467		100	92		150	142			1767.8
	202			34,670	[illegible]	[illegible]	200	205		140	139		1758.3	1760.56

Exhibit 9

ATTACHMENT C --- Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

pg 1/3

No.	DESCRIPTION	STATUS OK	STATUS NOK	STATUS N/A	COMMENTS
A.	INPUT DATA				
1	STARTING CONDITIONS				
	Type of Run Appropriate (Sub/Super)	✓			
	Starting Elevation Method	✓			[illegible]
	Flows consistent with backup data	✓			
	Manning's n- values	✓			
	Expansion & Contraction Coefficients		✓		[illegible]
	Match to Contiguous Studies				[illegible]
2	HYDRAULIC MODELING				
	Cross section location, #,& Orientation	✓			
	Distances between sections	✓			
	Changes in n-values appropriate	✓			
	All bridges/culverts modeled	✓			
	Check ineffective flow areas		✓		[illegible]
	Changes in CCHV & CEHV appropriate	✓			1 & 3
3	BRIDGE/CULVERT MODELING				
	Type of bridge routine	✓			
	Cross sections appropriate	✓			
	Changes in NC Card data appropriate		✓		[illegible]
	Ineffective flow areas check		✓		[illegible]
	Coding of Bridge Geometry		✓		[illegible]
	Skewness to flow considered	✓			

ATTACHMENT G — Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

pg 2/3

No	DESCRIPTION	STATUS OK	STATUS NOK	STATUS N/A	COMMENTS
A.	**INPUT DATA (continued)**				
4	FLOODWAY MODELING				
	Encroachment Method Used	✓			Method 1
	Check for total flowrates	✓			
	Check starting WSEL		✓		[illegible]
5	MISC. INPUT DATA CHECK				
B.	OUTPUT				
1	SUMMARY OF ERRORS				
	Divided flow check	✓			
	Check HV > HVINS	✓			
	Check for Conveyance Change >>	✓			
	Critical Depth check	✓			
	Cross section extensions		✓		[illegible]

ATTACHMENT G --- Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

pg 3/3

No.	DESCRIPTION	STATUS OK	STATUS NOK	STATUS N/A	COMMENTS
B.	OUTPUT DATA (continued)				
2	BRIDGE MODELING				
	Check for submergence from T.W		✓		[illegible]
	Type of flow assumed	✓			
3	FLOODWAY DATA OUTPUT				
	Flow rates	✓			
	Check for maximum rise	✓			
	Check for hazardous velocities		?		[illegible]
	Ineffective Flow areas		✓		[illegible]
	Widths within bank stations	✓			
	Wider than 100-year?	✓			
	Contiguous Study Match		?		[illegible]
	Starting water surface elevation		X		[illegible]
4	OTHER OUTPUT DATA				
	Contiguous study match		?		

CHECK-2 Program: NT Module
Manning's n Value and Transition Loss Coefficient Review

Report File = N:\SD0339\LV\CADD\02\LV.NT2
Date: 1/25/99
Time: 5:42:48 PM

SECNO	XNL	XNR	XNCH	CCHV	CEHV	Structure
306	0.045	0.045	0.045	0.1	0.3	
308	0.045	0.045	0.035	0.1	0.3	
310	0.045	0.045	0.035	0.1	0.3	
312	0.045	0.045	0.035	0.1	0.3	
314	0.045	0.045	0.035	0.1	0.3	
316	0.045	0.045	0.035	0.1	0.3	
318	0.045	0.045	0.035	0.1	0.3	
320	0.045	0.045	0.035	0.1	0.3	
322	0.045	0.045	0.035	0.1	0.3	
324	0.045	0.045	0.035	0.1	0.3	
326	0.045	0.045	0.035	0.1	0.3	
328	0.045	0.045	0.035	0.1	0.3	
330	0.045	0.045	0.035	0.1	0.3	
332	0.045	0.045	0.035	0.1	0.3	
334	0.04	0.04	0.035	0.1	0.3	
336	0.04	0.04	0.035	0.1	0.3	
338	0.04	0.04	0.035	0.1	0.3	
340	0.04	0.04	0.035	0.1	0.3	
342	0.04	0.04	0.035	0.1	0.3	
344	0.04	0.04	0.035	0.1	0.3	
346	0.04	0.04	0.035	0.1	0.3	
348	0.04	0.04	0.035	0.1	0.3	
350	0.04	0.04	0.035	0.1	0.3	
352	0.04	0.04	0.035	0.1	0.3	
354	0.04	0.04	0.035	0.1	0.3	
356	0.04	0.04	0.035	0.1	0.3	
358	0.04	0.04	0.035	0.1	0.3	
359	0.03	0.03	0.03	0.1	0.3	
359.1	0.03	0.03	0.03	0.1	0.3	
360	0.04	0.04	0.035	0.1	0.3	
361	0.04	0.04	0.035	0.1	0.3	
362	0.04	0.04	0.035	0.1	0.3	
364	0.04	0.04	0.035	0.1	0.3	
366	0.04	0.04	0.035	0.1	0.3	
368	0.04	0.04	0.035	0.1	0.3	
370	0.04	0.04	0.035	0.1	0.3	
372	0.04	0.04	0.035	0.1	0.3	
374	0.04	0.04	0.035	0.1	0.3	
376	0.04	0.04	0.035	0.1	0.3	
378	0.04	0.04	0.035	0.1	0.3	
380	0.04	0.04	0.035	0.1	0.3	
382	0.04	0.04	0.035	0.1	0.3	
384	0.04	0.04	0.035	0.1	0.3	
386	0.04	0.04	0.035	0.1	0.3	
388	0.04	0.04	0.035	0.1	0.3	
390	0.04	0.04	0.035	0.1	0.3	
392	0.04	0.04	0.035	0.1	0.3	
394	0.04	0.04	0.035	0.1	0.3	
396	0.04	0.04	0.035	0.1	0.3	
398	0.03	0.03	0.015	0.3	0.5	
400	0.03	0.03	0.015	0.3	0.5	
400.1	0.03	0.03	0.015	0.3	0.5	SB+X2
401	0.03	0.03	0.015	0.1	0.3	
402	0.03	0.03	0.015	0.1	0.3	
404	0.03	0.03	0.015	0.1	0.3	
406	0.03	0.03	0.015	0.1	0.3	
408	0.03	0.03	0.015	0.1	0.3	
410	0.03	0.03	0.015	0.1	0.3	
412	0.03	0.03	0.015	0.1	0.3	
414	0.04	0.04	0.035	0.1	0.3	
416	0.04	0.04	0.035	0.1	0.3	
418	0.04	0.04	0.035	0.1	0.3	
420	0.04	0.04	0.035	0.1	0.3	
422	0.04	0.04	0.035	0.1	0.3	
424	0.04	0.04	0.035	0.1	0.3	
426	0.04	0.04	0.035	0.1	0.3	
428	0.04	0.04	0.035	0.1	0.3	
430	0.04	0.04	0.035	0.1	0.3	

432	0.03	0.03	0.025	0.3	0.5	
438	0.03	0.03	0.025	0.3	0.5	
439	0.03	0.03	0.025	0.3	0.5	
439.1	0.03	0.03	0.025	0.3	0.5	BT
440	0.03	0.03	0.025	0.3	0.5	BT
440.1	0.03	0.03	0.025	0.3	0.5	
441	0.03	0.03	0.025	0.3	0.5	
442	0.03	0.15	0.025	0.1	0.3	
444	0.03	0.03	0.025	0.1	0.3	
446	0.03	0.03	0.025	0.1	0.3	
448	0.03	0.03	0.025	0.1	0.3	
450	0.03	0.03	0.025	0.1	0.3	
452	0.03	0.03	0.025	0.1	0.3	
454	0.03	0.03	0.025	0.1	0.3	
456	0.03	0.03	0.025	0.1	0.3	
458	0.05	0.05	0.04	0.1	0.3	
460	0.05	0.05	0.04	0.3	0.5	
468	0.05	0.05	0.04	0.3	0.5	
468.9	0.05	0.05	0.04	0.3	0.5	
469	0.05	0.05	0.04	0.3	0.5	BT
470	0.05	0.05	0.04	0.3	0.5	BT
470.1	0.05	0.05	0.04	0.3	0.5	
471	0.05	0.05	0.03	0.3	0.5	
472	0.05	0.05	0.03	0.1	0.3	
474	0.05	0.05	0.03	0.3	0.5	
478	0.05	0.05	0.03	0.3	0.5	
479.1	0.05	0.05	0.03	0.3	0.5	
480	0.05	0.05	0.03	0.3	0.5	SB+X2
481	0.05	0.05	0.03	0.3	0.5	
482	0.05	0.05	0.03	0.1	0.3	

------Summary of Statistics------

	Minimum	Maximum
Left Overbank N Value:	0.03	0.05
Right Overbank N Value:	0.03	0.15
Channel N Value:	0.015	0.045
Contraction Coefficient:	0.1	0.3
Expansion Coefficient:	0.3	0.5

------Roughness Coefficient Check------

SECNO: 359
NT RC 01 Left overbank n value is less than 0.04

SECNO: 359
NT RC 03 Right overbank n value is less than 0.04

SECNO: 359.1
NT RC 01 Left overbank n value is less than 0.04

SECNO: 359.1
NT RC 03 Right overbank n value is less than 0.04

SECNO: 398
NT RC 01 Left overbank n value is less than 0.04

SECNO: 398
NT RC 03 Right overbank n value is less than 0.04

SECNO: 398
NT RC 05 Channel n value is less than 0.025

SECNO: 400
NT RC 01 Left overbank n value is less than 0.04

SECNO: 400
NT RC 03 Right overbank n value is less than 0.04

SECNO: 400
NT RC 05 Channel n value is less than 0.025

SECNO: 400.1
NT RC 01 Left overbank n value is less than 0.04

SECNO: 400.1
NT RC 03 Right overbank n value is less than 0.04

SECNO: 400.1
NT RC 05 Channel n value is less than 0.025

SECNO: 401
NT RC 01 Left overbank n value is less than 0.04

SECNO: 401
NT RC 03 Right overbank n value is less than 0.04

SECNO: 401
NT RC 05 Channel n value is less than 0.025

SECNO: 402
NT RC 01 Left overbank n value is less than 0.04

SECNO: 402
NT RC 03 Right overbank n value is less than 0.04

SECNO: 402
NT RC 05 Channel n value is less than 0.025

SECNO: 404
NT RC 01 Left overbank n value is less than 0.04

SECNO: 404
NT RC 03 Right overbank n value is less than 0.04

SECNO: 404
NT RC 05 Channel n value is less than 0.025

SECNO: 406
NT RC 01 Left overbank n value is less than 0.04

SECNO: 406
NT RC 03 Right overbank n value is less than 0.04

SECNO: 406
NT RC 05 Channel n value is less than 0.025

SECNO: 408
NT RC 01 Left overbank n value is less than 0.04

SECNO: 408
NT RC 03 Right overbank n value is less than 0.04

SECNO: 408
NT RC 05 Channel n value is less than 0.025

SECNO: 410
NT RC 01 Left overbank n value is less than 0.04

SECNO: 410
NT RC 03 Right overbank n value is less than 0.04

SECNO: 410
NT RC 05 Channel n value is less than 0.025

SECNO: 412
NT RC 01 Left overbank n value is less than 0.04

SECNO: 412
NT RC 03 Right overbank n value is less than 0.04

SECNO: 412
NT RC 05 Channel n value is less than 0.025

SECNO: 432
NT RC 01 Left overbank n value is less than 0.04

SECNO: 432
NT RC 03 Right overbank n value is less than 0.04

SECNO: 438
NT RC 01 Left overbank n value is less than 0.04

SECNO: 438
NT RC 03 Right overbank n value is less than 0.04

SECNO: 439
NT RC 01 Left overbank n value is less than 0.04

SECNO: 439
NT RC 03 Right overbank n value is less than 0.04

SECNO: 439.1
NT RC 01 Left overbank n value is less than 0.04

SECNO: 439.1
NT RC 03 Right overbank n value is less than 0.04

SECNO: 440
NT RC 01 Left overbank n value is less than 0.04

SECNO: 440
NT RC 03 Right overbank n value is less than 0.04

SECNO: 440.1
NT RC 01 Left overbank n value is less than 0.04

SECNO: 440.1
NT RC 03 Right overbank n value is less than 0.04

SECNO: 441
NT RC 01 Left overbank n value is less than 0.04

SECNO: 441
NT RC 03 Right overbank n value is less than 0.04

SECNO: 442
NT RC 01 Left overbank n value is less than 0.04

SECNO: 444
NT RC 01 Left overbank n value is less than 0.04

SECNO: 444
NT RC 03 Right overbank n value is less than 0.04

SECNO: 446
NT RC 01 Left overbank n value is less than 0.04

SECNO: 446
NT RC 03 Right overbank n value is less than 0.04

SECNO: 448
NT RC 01 Left overbank n value is less than 0.04

SECNO: 448
NT RC 03 Right overbank n value is less than 0.04

SECNO: 450
NT RC 01 Left overbank n value is less than 0.04

SECNO: 450
NT RC 03 Right overbank n value is less than 0.04

SECNO: 452
NT RC 01 Left overbank n value is less than 0.04

SECNO: 452
NT RC 03 Right overbank n value is less than 0.04

SECNO: 454
NT RC 01 Left overbank n value is less than 0.04

SECNO: 454
NT RC 03 Right overbank n value is less than 0.04

SECNO: 456
NT RC 01 Left overbank n value is less than 0.04

SECNO: 456
NT RC 03 Right overbank n value is less than 0.04

------NC and NH records Check------

------Transition Coefficient check------

SECNO: 401
NT TL 02 This is section 4 of special bridge routine. Contraction and expansion loss coefficients are 0.1 and 0.3 respectively. They should be equal to 0.3 and 0.5.

SECNO: 398
NT TL 03 Contraction loss coefficient of 0.3 and expansion loss coefficient of 0.5 was used. However this cross section is not at a structure. Contraction loss coefficient of .1 and expansion loss coefficient of .3 should be used.

SECNO: 432
NT TL 03 Contraction loss coefficient of 0.3 and expansion loss coefficient of 0.5 was used. However this cross section is not at a structure. Contraction loss coefficient of .1 and expansion loss coefficient of .3 should be used.

SECNO: 438
NT TL 03 Contraction loss coefficient of 0.3 and expansion loss coefficient of 0.5 was used. However this cross section is not at a structure. Contraction loss coefficient of .1 and expansion loss coefficient of .3 should be used.

SECNO: 460
NT TL 03 Contraction loss coefficient of 0.3 and expansion loss coefficient of 0.5 was used. However this cross section is not at a structure. Contraction loss coefficient of .1 and expansion loss coefficient of .3 should be used.

SECNO: 468
NT TL 03 Contraction loss coefficient of 0.3 and expansion loss coefficient of 0.5 was used. However this cross section is not at a structure. Contraction loss coefficient of .1 and expansion loss coefficient of .3 should be used.

SECNO: 474
NT TL 03 Contraction loss coefficient of 0.3 and expansion loss coefficient of 0.5 was used. However this cross section is not at a structure. Contraction loss coefficient of .1 and expansion loss coefficient of .3 should be used.

SECNO: 478
NT TL 03 Contraction loss coefficient of 0.3 and expansion loss coefficient of 0.5 was used. However this cross section is not at a structure. Contraction loss coefficient of .1 and expansion loss coefficient of .3 should be used.

------Roughness Coefficient Check at Structures------

SECNO: 400
NT RS 01 This is section 2 of SB bridge routine. Channel n value is less than 0.025.

SECNO: 400.1
NT RS 01 This is section 3 of SB bridge routine. Channel n value is less than 0.025.

------Special Notes and Messages check------

---End Program---

CHECK-2 Program, XSEC Module
Cross Section Location and Alignment Review

Report File = N:\SD0339\LV\CADD\02\LV.XS2
Date: 1/25/99
Time: 5:42:51 PM

SECNO	Xlob	Xrob	Xlch	CHWID	Topwid	Structure	Flow Type
306	0.00	0.00	0.00	468.60	1394.62		
308	448.00	290.00	631.00	297.20	878.16		D,C
310	352.00	180.00	490.00	60.00	1813.41		D
312	490.00	220.00	450.00	105.80	1231.94		D,C
314	390.00	255.00	354.00	271.10	1131.65		D,C
316	400.00	560.00	550.00	735.50	1363.54		D
318	430.00	494.00	510.00	70.00	1906.59		C
320	255.00	280.00	310.00	35.00	1870.42		
322	380.00	440.00	430.00	70.00	1591.84		C
324	370.00	450.00	490.00	74.00	1770.59		C
326	375.00	530.00	550.00	40.00	1886.44		C
328	290.00	270.00	320.00	32.00	1782.86		C
330	380.00	490.00	400.00	40.00	1403.85		D
332	400.00	320.00	440.00	228.40	821.90		D,C
334	405.00	520.00	410.00	55.00	698.79		D,C
336	420.00	310.00	440.00	78.10	426.61		D,C
338	545.00	475.00	542.00	281.10	1269.25		C
340	415.00	420.00	440.00	62.00	1106.42		D
342	500.00	480.00	533.00	90.00	1139.02		C
344	535.00	280.00	510.00	60.00	1532.12		C
346	548.00	565.00	625.00	55.00	1823.20		D,C
348	435.00	401.00	425.00	53.00	1805.86		D
350	322.00	255.00	317.00	47.40	1459.85		D
352	245.00	277.00	245.00	44.00	1381.14		C
354	487.00	468.00	477.00	130.10	809.67		D,C
356	455.00	560.00	495.00	38.60	957.54		D
358	440.00	351.00	482.00	655.10	1103.90		
359	60.00	60.00	60.00	750.70	1080.54		D
359.1	79.00	79.00	79.00	1805.10	1051.76		
360	58.00	58.00	58.00	1288.50	1252.97		D
361	54.00	54.00	54.00	1798.10	1298.92		
362	491.00	759.00	547.00	67.50	1244.93		D,C
364	550.00	559.00	551.00	130.00	1360.26		
366	440.00	447.00	460.00	81.00	1181.74		D,C
368	439.00	432.00	440.00	118.70	1615.28		D
370	425.00	463.00	479.00	73.20	2016.74		D
372	580.00	519.00	571.00	116.00	2043.83		D
374	425.00	412.00	414.00	142.30	1895.67		D
376	482.00	501.00	492.00	203.90	1532.40		D,C
378	449.00	453.00	453.00	187.20	1283.03		D
380	504.00	528.00	512.00	184.50	376.58		D
382	514.00	509.00	509.00	215.90	364.00		D
384	512.00	512.00	512.00	263.50	161.86		
386	535.00	584.00	535.00	186.70	164.17		
388	470.00	426.00	458.00	212.00	174.22		
390	534.00	449.00	532.00	269.80	173.04		
392	590.00	531.00	577.00	379.00	169.27		
394	448.00	450.00	448.00	384.30	170.91		
396	520.00	498.00	507.00	236.00	165.85		E
398	305.00	371.00	352.00	180.00	212.00		
400	120.00	232.00	170.00	124.50	124.46		
400.1	88.70	88.70	88.70	124.50	124.46	SB+X2	
401	260.00	150.00	218.00	181.00	203.97		
402	97.00	55.00	83.00	181.00	167.57		
404	272.00	226.00	252.00	181.00	158.88		
406	482.00	281.00	282.00	181.60	147.65		C
408	334.00	284.00	303.00	180.50	148.05		
410	351.00	291.00	318.00	181.00	148.31		C
412	215.00	218.00	215.00	201.00	169.98		
414	492.00	500.00	497.00	123.60	103.96		C
416	351.00	356.00	353.00	107.40	96.68		
418	278.00	272.00	274.00	108.60	82.31		
420	547.00	590.00	570.00	119.10	102.09		
422	290.00	330.00	319.00	159.50	95.34		C
424	439.00	456.00	458.00	113.80	276.93		
426	247.00	287.00	268.00	104.70	340.01		D
428	433.00	522.00	485.00	283.30	203.30		C,E

430	140.00	244.00	182.00	205.40	425.32		
432	538.00	580.00	565.00	174.50	397.57		
438	465.00	527.00	494.00	150.60	149.54		
439	28.00	28.00	28.00	133.20	133.03		E
439.1	1.00	1.00	1.00	133.10	133.02	BT	C,E
440	104.00	104.00	104.00	133.15	131.81	BT	C
440.1	1.00	1.00	1.00	133.15	133.00		E
441	31.00	31.00	31.00	193.70	193.70		E
442	497.00	447.00	466.00	454.00	461.75		
444	314.00	270.00	299.00	151.66	353.17		D
446	410.00	360.00	390.00	166.53	187.49		D,C
448	629.00	560.00	595.00	161.10	215.57		E
450	540.00	506.00	527.00	162.40	212.92		E
452	544.00	493.00	517.00	225.70	169.93		E
454	514.00	478.00	500.00	179.00	159.96		
456	546.00	475.00	510.00	198.30	156.26		
458	396.00	384.00	392.00	205.80	153.95		
460	359.00	355.00	357.00	217.40	153.38		
468	261.00	286.00	274.00	171.60	141.54		
468.9	47.00	47.00	47.00	195.80	132.84		
469	1.00	1.00	1.00	139.50	126.97	BT	
470	109.00	109.00	109.00	139.50	186.08	BT	
470.1	1.00	1.00	1.00	139.51	139.50		
471	41.00	41.00	41.00	165.30	144.02		
472	284.00	398.00	340.00	152.70	116.86		
474	360.00	420.00	392.00	137.80	102.16		
478	386.00	456.00	415.00	174.60	115.90		
479.1	44.00	44.00	44.00	165.00	147.31		
480	102.00	102.00	102.00	180.60	171.63	SB+X2	
481	32.00	32.00	32.00	161.10	139.64		
482	205.00	205.00	205.00	153.60	136.64		

XS IF 04 D = divided flow
XS IF 05 E = extended cross section
XS IF 06 C = critical depth
XS IF 07 S = X5 record

-----Distance Check-----

----Channel Width Check----

SECNO: 310
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

SECNO: 314
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

SECNO: 316
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

SECNO: 318
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

SECNO: 332
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

SECNO: 334
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

SECNO: 338
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

SECNO: 340
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

SECNO: 354
XS CW 02 Channel width changes by a factor of two when compared to the
the downstream cross section.

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SECNO:  356
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  358
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  359.1
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  362
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  428
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  442
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  444
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

----Spacing Cneck----

----Ineffective Flow Area----

----Location Check----

SECNO:  412
XS LC 01  This cross section is located too far upstream from
          critical depth cross section.
          SECNO     DEPTH     TOPWID    XLCH
          410       4.55      148.31
          412       5.4       169.98    215
          ----------------------------------------
          Ratio     1.19      1.15

SECNO:  448
XS LC 01  This cross section is located too far upstream from
          critical depth cross section.
          SECNO     DEPTH     TOPWID    XLCH
          446       6.59      187.49
          448       7.82      215.57    595
          ----------------------------------------
          Ratio     1.19      1.15

----Discharge Check----

SECNO:  442
XS DC 01  Discharge decreases in the downstream direction.

SECNO:  306
XS DC 04  There is no flow on the left overbank at
          down stream section.
          There is no flow on the right overbank at
          this section.

----Starting WSEL Check----

XS SW 02  Known water-surface elevation of  1572.44  is specified on the first J1 record.


---End Program---
```

CHECK-2 Program: Bridge Module

Report File = N:\SD0339\LV\CADD\02\LV.BR2
Date: 1/25/99
Time: 5:42:56 PM

SECNO	MXLCEL	MNREL	EG	CWSEL	ELMIN	Structure
306	-----	-----	1572.5	1572.44	1561.1	
308	-----	-----	1574.85	1574.18	1571	
310	-----	-----	1576.92	1576.69	1572.2	
312	-----	-----	1577.87	1577.83	1571.8	
314	-----	-----	1579.89	1579.29	1573.7	
316	-----	-----	1581.86	1581.68	1575.5	
318	-----	-----	1587.52	1587.08	1582.1	
320	-----	-----	1588.7	1588.6	1583.8	
322	-----	-----	1593.34	1592.74	1584.4	
324	-----	-----	1596.01	1595.46	1588.2	
326	-----	-----	1598.78	1598.31	1591.4	
328	-----	-----	1601.62	1601.18	1595	
330	-----	-----	1604.74	1604.23	1597.3	
332	-----	-----	1610.32	1609.62	1604	
334	-----	-----	1615.03	1614.02	1604.9	
336	-----	-----	1618.52	1617.57	1607.1	
338	-----	-----	1628.96	1628.46	1625.5	
340	-----	-----	1630.61	1629.85	1617.97	
342	-----	-----	1633.47	1632.68	1620.5	
344	-----	-----	1639.02	1638.45	1631.6	
346	-----	-----	1643.84	1643.35	1635.5	
348	-----	-----	1645.92	1645.56	1641.5	
350	-----	-----	1647.53	1647.14	1641.4	
352	-----	-----	1650.56	1650.02	1642.85	
354	-----	-----	1653.78	1653.05	1646	
356	-----	-----	1656.78	1656.18	1649.9	
358	-----	-----	1658.78	1658.56	1655.8	
359	-----	-----	1659.1	1658.68	1653.3	
359.1	-----	-----	1659.67	1659.17	1655.7	
360	-----	-----	1659.85	1659.76	1653.8	
361	-----	-----	1659.92	1659.82	1654.3	
362	-----	-----	1665.14	1664.66	1659	
364	-----	-----	1667.13	1667	1661.5	
366	-----	-----	1669.19	1668.67	1665	
368	-----	-----	1670.98	1670.87	1666.5	
370	-----	-----	1671.82	1671.74	1668	
372	-----	-----	1673.81	1673.54	1669.5	
374	-----	-----	1674.94	1674.88	1670.2	
376	-----	-----	1676.57	1676.12	1671.5	
378	-----	-----	1678.7	1678.03	1671.7	
380	-----	-----	1681.23	1680.06	1674.2	
382	-----	-----	1682.7	1682.23	1674.2	
384	-----	-----	1683.67	1683	1674.4	
386	-----	-----	1684.79	1684.08	1675.1	
388	-----	-----	1685.53	1685.06	1675.6	
390	-----	-----	1686.19	1685.69	1675.9	
392	-----	-----	1686.94	1686.43	1676.6	
394	-----	-----	1687.61	1687.04	1677.4	
396	-----	-----	1688.45	1687.86	1678.4	
398	-----	-----	1688.63	1688.41	1676.3	
400	-----	-----	1688.71	1688.36	1676.3	
400.1	1687.1	1691.5	1689.14	1688.8	1676.7	SB+X2
401	-----	-----	1689.17	1688.87	1678.2	
402	-----	-----	1689.28	1688.66	1680.9	
404	-----	-----	1689.51	1688.51	1682.2	
406	-----	-----	1690.61	1688.52	1683.9	
408	-----	-----	1691.24	1689.15	1684.6	
410	-----	-----	1692.74	1690.65	1686.1	
412	-----	-----	1693.11	1692	1686.6	
414	-----	-----	1698.91	1696.29	1688.4	
416	-----	-----	1701.28	1699.69	1689.8	
418	-----	-----	1703.03	1700.61	1691.8	
420	-----	-----	1705.95	1704.57	1694	
422	-----	-----	1708.81	1705.89	1694.3	
424	-----	-----	1710.13	1709.9	1699	
426	-----	-----	1710.43	1710.14	1701.5	
428	-----	-----	1713.26	1711.83	1707	
430	-----	-----	1714.74	1714.04	1708	
432	-----	-----	1716.35	1715.81	1708.5	

438	-----	-----	1718.07	1716.63	1710.5	
439	-----	-----	1718.34	1716.64	1710.7	
439.1	1724.42	1714.4	1718.62	1716.67	1710.7	BT
440	1724.42	1714.4	1720.43	1718.45	1711.7	BT
440.1	-----	-----	1720.7	1719.61	1711.7	
441	-----	-----	1720.96	1720.63	1711.7	
442	-----	-----	1721.23	1721.04	1712.4	
444	-----	-----	1721.79	1720.8	1713.9	
446	-----	-----	1723.94	1722.26	1715.67	
448	-----	-----	1726.26	1725.22	1717.4	
450	-----	-----	1727.67	1726.62	1719.1	
452	-----	-----	1728.8	1728.02	1719.4	
454	-----	-----	1729.55	1728.86	1720.1	
456	-----	-----	1730.33	1729.51	1720.4	
458	-----	-----	1731.08	1730.53	1720.6	
460	-----	-----	1731.95	1731.33	1721.7	
468	-----	-----	1732.78	1732.04	1722	
468.9	-----	-----	1732.93	1732.19	1721.6	
469	1737.2	1733.9	1732.98	1732.14	1721.6	BT
470	1733.21	1733.9	1733.64	1733.05	1722.6	BT
470.1	-----	-----	1733.66	1733.17	1722.6	
471	-----	-----	1733.78	1733.17	1722.5	
472	-----	-----	1734.46	1733.46	1722.7	
474	-----	-----	1735.71	1734.33	1724.7	
478	-----	-----	1736.75	1736	1724.9	
479.1	-----	-----	1736.88	1736.4	1724.9	
480	1731.	1741.5	1738.82	1738.58	1725.2	SB+X2
481	-----	-----	1738.87	1738.56	1725.2	
482	-----	-----	1738.99	1738.61	1725.2	

SECNO: 400.1
Type Structure: Special Bridge
Type of Flow: Pressure Flow

Section	SECNO	XLCH	CWSEL	EG	TOPWID	CHWID	X3 Left	X3 Right
1	398	352	1688.41	1688.63	212	180.		
2	400	170	1688.36	1688.71	124.46	124.5	1691.5	1691.5
3	400.1	88.7	1688.8	1689.14	124.46	124.5	1691.5	1691.5
4	401	218	1688.87	1689.17	203.97	181.		
5	402	83	1688.66	1689.28	167.57	181.		

EGLWC:	1688.76	QLOW:	0	WRLEN:	0
EGPRS:	1689.14	QPR:	7100		
BR.WS:	0	QWEIR:	0		
BR.VEL:	0	Q:	7100		
MNLRDEL:	1691.5	MXLCEL:	1687.1	ELLC:	1687.1
MNRRDEL:	1691.5	MNRDEL:	1691.5	ELTRD:	1691.5
XK:	1.25	XKOR:	1.5	COFQ:	2.6
RDELEN:	125	BWC:	125	BWP:	4.5
BAREA:	1224	SS:	0	ELCHU:	1676.7

ELCHD: 1676.3

---BT records Check---

SECNO: 400.1
BR BT 01 Left channel bank station is not specified within the BT data.
GR and BT data may not be aligned properly.

SECNO: 400.1
BR BT 02 Right channel bank station is not specified within the BT data.
GR and BT data may not be aligned properly.

----Location check---

----X2 record check---

----X3 record check---

SECNO: 400
BR X3 20 Section 2; Type of flow is Pressure Flow.
However, Left bank limiting elevation of 1691.5
is higher than the CWSEL of 1688.36 at section 2,
and the CWSEL of 1688.41 at section 1 is higher
than down stream low chord elevation of 1687.1 by more than 0.5 ft..

```
SECNO:    400
BR X3 22  Section 2; Type of flow is Pressure Flow.
          However, Left bank limiting elevation of  1691.5
          is higher than the CWSEL of  1688.36  at section 2,
          and the CWSEL of  1688.36  at section 2 is higher than
          down stream low chord elevation of  1687.1  .

SECNO:    400
BR X3 21  Section 2; Type of flow is Pressure Flow.
          However, right bank limiting elevation of  1691.5
          is higher than the CWSEL of  1688.36  at section 2,
          and the CWSEL of  1688.41  at section 1 is higher
          than down stream low chord elevation of  1687.1  by more than 0.5 ft..

SECNO:    400
BR X3 23  Section 2; Type of flow is Pressure Flow.
          However, right bank limiting elevation of  1691.5
          is higher than the CWSEL of  1688.36  at section 2,
          and the CWSEL of  1688.36  at section 2 is higher than
          down stream low chord elevation of  1687.1  .

---Presure Flow Check---

---Message Check---


SECNO:   439.1
Type Structure: Normal Bridge
Type of Flow: Low and Weir Flow

Section  SECNO     XLCH      CWSEL     EG        TOPWID    CHWID     X3 Left    X3 Right
-------------------------------------------------------------------------------------
 1       438       494       1716.63   1718.07   149.54    150.6
 2       439       28        1716.64   1718.34   133.03    133.2      1730.03   1730.03
 3       439.1     1         1716.67   1718.62   133.02    133.1      1730.034  1730.034
 4       440       104       1718.45   1720.43   131.81    133.15
 5       440.1     1         1719.61   1720.7    133       133.15     1690.9    1690.9
 6       441       31        1720.63   1720.96   193.7     193.7
 7       442       466       1721.04   1721.23   461.75    454.

         MNLRDEL:  1714.4    MXLCEL:  1724.42    ELLC:   0          Q:     5504.58
         MNRRDEL:  1717.4    MNRDEL:  1714.4     ELTRD:  0          Qch4:  5504.58

---BT records Check---

----Location check---

----X3 record check---

SECNO:    439
BR X3 06  Section 2; Type of flow is Low and Weir Flow.
          However, Left bank limiting elevation of  1730.03
          is higher than the CWSEL of  1716.64  .

SECNO:    439
BR X3 07  Section 2; Minimum left road elevation of  1714.4  is lower than Maximum
          low chord elevation of  1724.42 . However, the left bank limiting
          elevation of  1730.03  is not equal to minimum left road elevation.

SECNO:    439
BR X3 08  Section 2; Type of flow is Low and Weir Flow.
          However, right bank limiting elevation of  1730.03
          is higher than the CWSEL  1716.64  .

SECNO:    439
BR X3 09  Section 2; Minimum right road elevation of  1717.4  is lower than Maximum
          low chord elevation of  1724.42 . However, the right bank limiting
          elevation of  1730.03  is not equal to minimum right road elevation.

SECNO:    440.1
BR X3 12  Section 5; Left encroachment elevation  1736.424  will override
          the left bank limiting elevation  1690.9  .
          Area below  1736.424  and beyond left encroachment station
          709.92  will be not be considered in the backwater computations.

SECNO:    440.1
BR X3 13  Section 5; Right encroachment elevation  1736.424  will
          override the right bank limiting elevation 1690.9 .
```

Area below 1736.424 and beyond left encroachment station
842.97 will be not be considered in the backwater computations.

---Normal Bridge Flow Check---

SECNO: 440.1
BR NB 08 Low and weir flow because CWSEL of 1719.61 at section 5
is lower than MXLCEL of 1724.42 and higher than MNREL of 1714.4
at section 4.

SECNO: 469
Type Structure: Normal Bridge
Type of Flow: Low Flow

Section	SECNO	XLCH	CWSEL	EG	TOPWID	CHWID	X3 Left	X3 Right
1	468	274	1732.04	1732.78	141.54	171.6		
2	468.9	47	1732.19	1732.93	132.84	195.8	1690.9	1690.9
3	469	1	1732.14	1732.98	126.97	139.5	0	0
4	470	109	1733.05	1733.64	186.08	139.5		
5	470.1	1	1733.17	1733.66	139.5	139.51	1690.9	1690.9
6	471	41	1733.17	1733.78	144.02	165.3		
7	472	340	1733.46	1734.46	116.86	152.7		

MNLRDEL: 1736.81 MXLCEL: 1733.21 ELLC: 0 Q: 5993
MNRRDEL: 1733.9 MNRDEL: 1733.9 ELTRD: 0 Qch4: 5992.85

---BT records Check---

----Location check---

----X3 record check---

SECNO: 468.9
BR X3 02 Section 2; Type of flow is Low Flow.
However, Left bank limiting elevation of 1690.9
is lower than the CWSEL of 1732.19 .

SECNO: 468.9
BR X3 03 Section 2; Left bank limiting elevation of 1690.9 is not within the
maximum low chord elevation of 1733.21 and minimum left road
elevation of 1736.81 .

SECNO: 468.9
BR X3 04 Section 2; Type of flow is Low Flow.
However, right bank limiting elevation of 1690.9
is lower than the CWSEL of 1732.19 .

SECNO: 468.9
BR X3 05 Section 2; Right bank limiting elevation of 1690.9 is not within the
maximum low chord elevation of 1733.21 and minimum right road
elevation of 1733.9 .

SECNO: 470.1
BR X3 02 Section 5; Type of flow is Low Flow.
However, Left bank limiting elevation of 1690.9
is lower than the CWSEL of 1733.17 .

SECNO: 470.1
BR X3 03 Section 5; Left bank limiting elevation of 1690.9 is not within the
maximum low chord elevation of 1733.21 and minimum left road
elevation of 1736.81 .

SECNO: 470.1
BR X3 04 Section 5; Type of flow is Low Flow.
However, right bank limiting elevation of 1690.9
is lower than the CWSEL of 1733.17 .

SECNO: 470.1
BR X3 05 Section 5; Right bank limiting elevation of 1690.9 is not within the
maximum low chord elevation of 1733.21 and minimum right road
elevation of 1733.9 .

SECNO: 470.1
BR X3 12 Section 5; Left encroachment elevation 1735 will override
the left bank limiting elevation 1690.9 .
Area below 1735 and beyond left encroachment station

1111.85 will be not be considered in the backwater computations.

SECNO: 470.1
BR X3 13 Section 5; Right encroachment elevation 1735 will override the right bank limiting elevation 1690.9 . Area below 1735 and beyond left encroachment station 1251.45 will be not be considered in the backwater computations.

---Normal Bridge Flow Check---

SECNO: 470.1
BR NB 01 Low flow because CWSEL of 1733.17 at section 5 is lower than MXLCEL of 1733.21 and lower than MNREL of 1733.9 at section 4.

SECNO: 469
BR NB 04 Normal bridge, low flow. However, channel widths at section 2 and section 3 are not the same.

SECNO: 470.1
BR NB 06 Normal bridge, low flow. However, channel widths at section 5 and section 4 are not the same.

SECNO: 480
Type Structure: Special Bridge
Type of Flow: Pressure Flow

Section	SECNO	XLCH	CWSEL	EG	TOPWID	CHWID	X3 Left	X3 Right
1	478	415	1736	1736.75	115.9	174.6		
2	479.1	44	1736.4	1736.88	147.31	165.	1738.5	1738.93
3	480	102	1738.58	1738.82	171.63	180.6	1739.5	1741
4	481	32	1738.56	1738.87	139.64	161.1		
5	482	205	1738.61	1738.99	136.64	153.6		

EGLWC:	1736.88	QLOW:	0	WRLEN:	0	
EGPRS:	1738.82	QPR:	5993			
BR.WS:	0	QWEIR:	0			
BR.VEL:	0	Q:	5993			
MNLRDEL:	1741.5	MXLCEL:	1731	ELLC:	1731	
MNRRDEL:	1741.5	MNRDEL:	1741.5	ELTRD:	1741.5	
XK:	1.05	XKOR:	1.56	COFQ:	2.6	
RDELEN:	144	BWC:	100	BWP:	6	
BAREA:	600	SS:	1.5	ELCHU:	1725.2	ELCHD: 1725.2

---BT records Check---

----Location check---

----X2 record check---

----X3 record check---

SECNO: 479.1
BR X3 20 Section 2; Type of flow is Pressure Flow. However, Left bank limiting elevation of 1739.5 is higher than the CWSEL of 1736.4 at section 2, and the CWSEL of 1736 at section 1 is higher than down stream low chord elevation of 1731 by more than 0.5 ft..

SECNO: 479.1
BR X3 22 Section 2; Type of flow is Pressure Flow. However, Left bank limiting elevation of 1739.5 is higher than the CWSEL of 1736.4 at section 2, and the CWSEL of 1736.4 at section 2 is higher than down stream low chord elevation of 1731 .

SECNO: 479.1
BR X3 21 Section 2; Type of flow is Pressure Flow. However, right bank limiting elevation of 1741 is higher than the CWSEL of 1736.4 at section 2, and the CWSEL of 1736 at section 1 is higher than down stream low chord elevation of 1731 by more than 0.5 ft..

SECNO: 479.1
BR X3 23 Section 2; Type of flow is Pressure Flow. However, right bank limiting elevation of 1741 is higher than the CWSEL of 1736.4 at section 2,

and the CWSEL of 1736.4 at section 2 is higher than
down stream low chord elevation of 1731 .

---Presure Flow Check---

---Message Check---

---End Program---

Study Contractor: Nolte & Associates, Inc.

QUALITY ASSURANCE INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Attachment A: Roughness Coef. Ck.		Pg. 2
Las Vegas Wash	Attachment D: Agreement Table		Pg. 3-10
Las Vegas Wash	Attachment G: Hydraulics Review		Pg. 11-13
Las Vegas Wash	LVDUCK.DAT CHECK-2: NT Module		Pg. 14-15
Las Vegas Wash	LVDUCK.DAT CHECK-2: XSEC Module		Pg. 16-19

ATTACHMENT 4

Page 1 of 1

Engineer: [illegible] Date --7-98

Study: [illegible] Stream: [illegible]

ROUGHNESS COEFFICIENT CHECK

SECNO	XNL	XNCH	XNR	CCHV	CEHV	REMARKS
100	.035	.03	.035	.1	.3	[illegible]
210	.04	.035	.04	↓	↓	
216	.045	.045	.045	↓	↓	
228	.045	.04	.045	↓	↓	
[illegible]	.035	.035	.045	↓	↓	
270	.045	.045	.045	↓	0	
510	.032	.032	.032	.3	.6	[illegible]
* 706	.045	.035	.045	.1	.3	[illegible] w/ [illegible]
334	.04	.035	.04	↓	↓	
354	.03	.03	.03	↓	↓	
360	.04	.035	.04	↓	↓	
* 398	.03	.04	.03	[illegible]	[illegible]	[illegible]
416	.04	.035	.04			
432	.03	.025	.03			
438	"	"	"	.2	.4	[illegible]
442	.03	.025	.03	.1	.3	
458	.05	.04	.05			
* 469	[illegible]	[illegible]	[illegible]	.3	[illegible]	[illegible]
* 479.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Exhibit 2

2B69 CID32003 001

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE 1 OF 2

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
[illegible]	0				—						N/A			[illegible]
	125				1		125	1		125	254			[illegible]
	202				226		524	524		510	464			[illegible]
	204				750		410	410		450	414			[illegible]
	216				1160		443	443		2-10	325			[illegible]
	228				1603		358	358		160	175			[illegible]
	240				1976		471	471		250	295			[illegible]
	252				2443	2466	590	590		150	280			[illegible]
	264				3033		560	560		85	130			[illegible]
	276				3593		830	830		180	177			[illegible]
	288				4423		738	738		290	418			[illegible]
	300				5161		5.1	5.1		300				1447.77
	312				5672		507	507		210				1452.57
	324				6179		496	496		1030				1355.30
	336				6875		615	615		350				1452.44
	348				7590		515	515		530				1466.14
	360				8103		420	420		260				1468.00
	372				8717		611	611		240				1468.89
	384				9604	9655	617	617		150				1468.8.
	396				9781		693	693		190				1438.14
	408				10,474		455	455		530				1417.00
	420				10,929					1257				441.57

Exhibit 9

Page 3 of 19

AGREEMENT TABLE

COMMUNITY CLARK COUNTY DATE: 11-1-95

STREAM Las Vegas Wash/Flamingo Wash PREPARED BY SPL PAGE 2 OF 8

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	240				10,124	10,130	800	810		600				1861.57
	242				10,939		480	460		400				1808.91
	244				11,739		640	650		196				1775.32
	246				12,547		600	521		130				1750.66
	248				13,687	13,690	540	536		70				1739.04
	250				14,914		790	791		350				1707.86
	252				15,705		650	628		640				1696.32
	254				16,393		520	530		280				1686.57
	256				16,803		480	485		250				1681.66
	258				16,278		420	410		130				1678.64
	260				16,705		340	370		190				1676.64
	262				17,098		450	435		835				1670.89
	264				17,533	17,550	590	570		600				1665.35
	266				1,993		320	470		470				1656.74
	268				18,545		350	360		60				1658.76
	270				19,775		55	55		820				1659.77
	272				19,826		45	55		1750				1659.09
	274				19,265		500	530		1650				1659.49
	276				17,457		470	450		1000				1660.20
	278				18,995		520	700		650				1660.8
	280				20,405		620	530		550				1662.06
	282				21,053	21,140				435				1664.97

Exhibit B

AGREEMENT TABLE

COMMUNITY Clark County DATE: 11-2-98

STREAM Las Vegas Wash/Tributaries PREPARED BY Gpw PAGE 2 OF 8

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	200				10,124	10,150				600	600			1861.57
	242				10,559		800	810		500	1			1858.91
	246				10,999		430	440		196	/			1852.30
	246				11,439		540	550		150	/			1846.66
	248				11,880	11,900	520	531		2=	↓			1839.24
	250				12,320		540	534		250	250			1829.86
	252				12,765		730	731		640	642			1808.28
	254				13,210		530	528		180	284			1810.57
	256				13,653		520	530		250	340			1811.66
	258				14,098		490	445		190	277			1812.66
	260				14,538		420	410		190	n/a			1816.64
	262				14,978		440	370		850	n/a			1820.98
	264				15,433	15,450	450	455		600	580			1825.85
	266				15,933		370	370		400	35			1826.94
	268				16,595		420	430		60	50			1828.96
	270				17,113		350	350		2250	1800			1829.77
	272				17,826		55	55		1750	1720			1830.09
	274				18,269		440	55		1620	1625			1838.29
	276				18,699		500	520		1900	1900			1560.30
	278				19,099		470	450		650	650			1560.12
	280				19,505		520	560		560	560			1562.06
	282				21,053	21,140	490	530		455	460			1549.97

Exhibit B

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE 2 OF 2

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	240				10,124	[illegible]				[illegible]	[illegible]			[illegible]
	242				[illegible]		800	810		500	[illegible]			[illegible]
	244				[illegible]		435	460		190	[illegible]			[illegible]
	246				10,549		640	590		190	[illegible]			[illegible]
	248				10,687	10,700	500	531		[illegible]	[illegible]			[illegible]
	250				10,814		540	555		350	250			[illegible]
	252				10,965		790	791		640	[illegible]			[illegible]
	254				11,392		350	428		280	290			[illegible]
	256				11,603		520	530		250	370			[illegible]
	258				11,775		490	495		130	277			[illegible]
	260				11,985		420	410		190	[illegible]			[illegible]
	262				12,098		340	370		450	[illegible]			[illegible]
	264				12,553	12,550	450	455		600	[illegible]			[illegible]
	266				12,923		570	570		400	290			[illegible]
	268				13,595		500	630		60	150			[illegible]
	270				13,773		380	380		320	1500			[illegible]
	272				13,826		55	55		1750	1728			[illegible]
	274				13,603		45	45		1400	[illegible]			[illegible]
	276				13,453		500	530		1000	1000			[illegible]
	278				13,795		470	450		650	650			[illegible]
	280				14,445		520	760		560	560			[illegible]
	282				21,153	21,140	690	530		435	440			[illegible]

Exhibit B

ATTACHMENT 1

AGREEMENT TABLE

COMMUNITY [illegible] COUNTY

STREAM [illegible]

DATE: 11-2-96

PREPARED BY [illegible]

PAGE 5 OF 5

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	348				985		310	5.7		490				1645.20
	350				1,015		360	345		780	7.7			1647.10
	352				1,413		430	427		730	743			1650.02
	354				1,859		520	495		790	495			1655.05
	356				1,334		640	492		730	728			1646.18
	358				1,644		60	60		5000	585			1658.52
	360				1,736		75	75		550	555			1658.67
	360.1				12,005		90	95		620	620			659.18
	360				2,003		80	84		520	520			1656.95
	361				2,117		570	547		620	620			1658.81
	362			2,070	12,664		570	551		784	784			1664.25
	364				13,215		470	460		500	435			1663.62
	366				13,675		440	434		420	408			1659.12
	368				14,115		490	419		650	658			1651.22
	370				14,546		517	571		790	777			1651.80
	372				15,165		420	414		8000	808			1653.35
	374			15 520	15,822		500	492		530	535			1655.19
	376				16,091		470	453		800	8012			1656.56
	378				16,524		510	516		280	2802			1657.35
	380				17,436		510	509		1500	1484			1659.14
	382				17,555		520	512		1700	169			1662.51
	384			15,050	15,455					110	104		1663.0	1661.92

Exhibit 9

AGREEMENT TABLE

COMMUNITY [illegible] DATE: 11-2-18

STREAM [illegible] PREPARED BY [illegible] PAGE 6 OF 8

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	358				16,257					170	64			1681.92
	356				14,592		530	537		160	126			1683.96
	348			17,150	9,050		450	458		150	175		1685.7	1684.77
	370				19,582		530	532		110	114			1685.63
	372				20,158		680	677		95	90			1686.50
	374				20,667		450	448		170	171			1687.01
	376				21,4		510	507		170	166			1687.53
	378			21,870	21,244		362	361		180	218		1688.4	1689.31
	400				21,536		100	100		130	128			1688.34
	402				21,775		90	89		120	124			1688.87
	404				22,155	22,150	230	218		130	201			1688.74
	432				22,650		150	152		110	147			1688.52
	434				22,736		520	520		120	158		1	1688.55
	436			23,250	22,648		510	503		150	148		1688.7	1688.71
	500				22,651		320	318		130	148			1688.24
	410				23,209		220	215		250	145			1689.64
	412				23,424		507	497		150	170			1689.80
	414				23,997	24,000	370	372		100	107			1690.29
	416				24,554		220	214		100	97			1690.65
	418			24,010	24,605		530	520		90	82		1688.5	1691.61
	420				25,178		220	219		100	102			1691.97
[illegible]	422				25,477					150	95			1705.59

Exhibit B

AGREEMENT TABLE

COMMUNITY [illegible] COUNTY

STREAM [illegible]

DATE: 11-7-96

PREPARED BY [illegible]

PAGE 7 OF 8

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
[illegible]	422				25,497					100	95			1765.35
	424			25,955	25,955		470	448		330	341		[illegible]	1767.95
	426				[illegible]	[illegible]	270	264		350	346			1769.15
	428				26,106		480	485		110	108			1771.85
	430				26,591		130	132		[illegible]	502			1773.05
	432				27,465		210	214		420	418			1775.85
	434			27,955	27,949		500	494		170	55		1776.6	1776.35
	437				27,977		50	26		135	132			1776.91
[illegible]	439.1				27,778		1	1		135	133			1776.91
	440				28,182		30	34		160	332			1778.50
	440.1				28,228		1	1		150	43			1779.65
	441				28,114		30	31		130	126			1779.50
	442				[illegible]	[illegible]	450	465		520	514		[illegible]	1780.58
	444			28,955	28,879		310	309		230	245	[illegible]	1780.17	1780.41
	446				29,269		390	374		[illegible]	183			1782.25
	448				29,864		580	595		210	215			1785.23
	450				30,451		530	527		200	213			1786.43
	452				30,000		520	517		178	170			1786.96
	454				31,402		500	500		178	160			1785.86
	[illegible]				[illegible]	[illegible]	520	510		[illegible]	156			1789.81
	458			30,480	32,318		390	392		[illegible]	154		1790.5	1790.59
	460				32,661		360	357		150	152			1791.32

Exhibit 9

[illegible] ALIGNMENT 2

AGREEMENT TABLE

COMMUNITY [illegible] DATE: [illegible]

STREAM [illegible] PREPARED BY [illegible] PAGE 8 OF 8

Physical Feature	# x-sec	abc x-sec	Cumulative Channel Distance				Distance B/X-Sec (profiles)		Floodway Width			Base Flood Elevation		
			table	profile	printout	maps	maps	printout	table	maps	printout	table	profile	printout
	4[illegible]				[illegible]	[illegible]				150	125			1751.42
	4[illegible]			32,[illegible]	32,241		270	274		140	141		732.0	1732.41
	4[illegible]				32,[illegible]		50	47		120	132			1722.16
	4[illegible]				32,[illegible]			1		160	137			1732.23
	4[illegible]				33,[illegible]		100	109		[illegible]	111			1732.32
	4[illegible]				33,[illegible]		1	1		160	134			1734.60
	4[illegible]				33,[illegible]		40	41		140	145			1735.81
	4[illegible]				[illegible]	[illegible]	340	340		120	[illegible]			1744.81
	4[illegible]			33,870	34,[illegible]		350	352		120	107		1735.0	1735.16
	4[illegible]				34,107		420	416		140	10			1736.17
	4[illegible]				34,131		10	48		[illegible]	133			1737.36
	4[illegible]				34,633		90	102		160	[illegible]			1737.81
	4[illegible]				[illegible]		100	92		100	82		1	1737.9
	4[illegible]			33,[illegible]	[illegible]	[illegible]	200	205		140	139		1743.3	1743.60

Exhibit B

ATTACHMENT G--- Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

No.	DESCRIPTION	STATUS OK	NOK	N/A	COMMENTS pg 03
A.	INPUT DATA				
1	STARTING CONDITIONS				
	Type of Run Appropriate (Subcritical)	✓			
	Starting Elevation Method	✓			[illegible]
	Flows consistent with backup data	✓			
	Manning's n-values	✓			
	Expansion & Contraction Coefficients		✓		[illegible]
	Match to Contiguous Studies	✓			[illegible]
2	HYDRAULIC MODELING				
	Cross section location, #,& Orientation	✓			
	Distances between sections	✓			
	Changes in n-values appropriate	✓			
	All bridges/culverts modeled	✓			
	Check ineffective flow areas		✓		[illegible]
	Changes in CCHV & CEHV appropriate	✓			[illegible]
3	BRIDGE/CULVERT MODELING				
	Type of bridge routine	✓			
	Cross sections appropriate	✓			
	Changes in NC Card data appropriate		✓		[illegible]
	Ineffective flow areas check		✓		[illegible]
	Coding of Bridge Geometry		✓		[illegible]
	Skewness to flow considered	✓			

ATTACHMENT G — Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

No.	DESCRIPTION	STATUS OK	NOK	N/A	COMMENTS pg 2/3
A.	INPUT DATA (continued)				
4	FLOODWAY MODELING				
	Encroachment Method Used	✓			Method 1
	Check for total flowrates	✓			
	Check starting WSEL		✓		[illegible]
5	MISC. INPUT DATA CHECK				
B.	OUTPUT				
1	SUMMARY OF ERRORS				
	Divided flow check	✓			
	Check HV > HVINS	✓			
	Check for Conveyance Change >>	✓			
	Critical Depth check	✓			
	Cross section extensions		✓		[illegible]

ATTACHMENT G --- Hydraulics Review Checklist Creek: [illegible] ENGR: [illegible] CK BY: [illegible]

pg 3/3

No.	DESCRIPTION	STATUS OK	STATUS NOK	STATUS N/A	COMMENTS
B.	OUTPUT DATA (continued)				
2	BRIDGE MODELING				
	Check for submergence from T/W		✓		[illegible]
	Type of flow assumed	✓			
3	FLOODWAY DATA OUTPUT				
	Flow rates	✓			
	Check for maximum rise	✓			
	Check for hazardous velocities		?		[illegible]
	Ineffective Flow areas		✓		[illegible]
	Widths within bank stations	✓			
	Wider than 100-year?	✓			
	Contiguous Study Match		?		[illegible]
	Starting water surface elevation		X		[illegible]
4	OTHER OUTPUT DATA				
	Contiguous study match		?		

CHECK-2 Program: NT Module
Manning's n Value and Transition Loss Coefficient Review

Report File = N:\SD0339\LV\CADD\02\LVDUCK.NT2
Date: 1/25/99
Time: 5:51:12 PM

SECNO	XNL	XNR	XNCH	CCHV	CEHV	Structure
100	0.035	0.035	0.03	0.1	0.3	
105	0.035	0.035	0.03	0.1	0.3	
202	0.035	0.035	0.03	0.1	0.3	
204	0.035	0.035	0.03	0.1	0.3	
206	0.035	0.035	0.03	0.1	0.3	
208	0.035	0.035	0.03	0.1	0.3	
210	0.04	0.04	0.035	0.1	0.3	
212	0.04	0.04	0.035	0.1	0.3	
214	0.04	0.04	0.035	0.1	0.3	
216	0.045	0.045	0.045	0.1	0.3	
218	0.045	0.045	0.045	0.1	0.3	
220	0.045	0.045	0.045	0.1	0.3	
222	0.045	0.045	0.045	0.1	0.3	
224	0.045	0.045	0.045	0.1	0.3	
226	0.045	0.045	0.045	0.1	0.3	
228	0.045	0.045	0.04	0.1	0.3	
230	0.045	0.045	0.04	0.1	0.3	
232	0.045	0.045	0.04	0.1	0.3	
234	0.045	0.045	0.04	0.1	0.3	
236	0.045	0.045	0.04	0.1	0.3	
238	0.045	0.045	0.04	0.1	0.3	
240	0.045	0.045	0.04	0.1	0.3	
242	0.045	0.045	0.04	0.1	0.3	
244	0.045	0.045	0.04	0.1	0.3	
246	0.045	0.045	0.04	0.1	0.3	
248	0.045	0.045	0.04	0.1	0.3	
250	0.045	0.045	0.04	0.1	0.3	
252	0.045	0.045	0.04	0.1	0.3	
254	0.045	0.045	0.04	0.1	0.3	
256	0.045	0.045	0.04	0.1	0.3	
258	0.045	0.045	0.04	0.1	0.3	
260	0.045	0.045	0.04	0.1	0.3	
262	0.045	0.045	0.04	0.1	0.3	
264	0.045	0.045	0.04	0.1	0.3	
266	0.045	0.045	0.04	0.1	0.3	
268	0.045	0.045	0.04	0.1	0.3	
270	0.045	0.045	0.04	0.1	0.3	
272	0.035	0.035	0.035	0.1	0.3	
274	0.035	0.035	0.035	0.1	0.3	
276	0.045	0.045	0.045	0.1	0.3	
278	0.045	0.045	0.045	0.1	0.3	
280	0.045	0.045	0.045	0.1	0.3	
282	0.045	0.045	0.045	0.1	0.3	
284	0.045	0.045	0.045	0.1	0.3	
286	0.045	0.045	0.045	0.1	0.3	
288	0.045	0.045	0.045	0.1	0.3	
292	0.045	0.045	0.045	0.1	0.3	
294	0.045	0.045	0.045	0.1	0.3	
296	0.045	0.045	0.045	0.1	0.3	
298	0.045	0.045	0.045	0.1	0.3	
300	0.045	0.045	0.045	0.1	0.3	
302	0.045	0.045	0.045	0.1	0.3	
304	0.045	0.045	0.045	0.1	0.3	
306	0.045	0.045	0.045	0.1	0.3	
500	0.045	0.045	0.045	0.1	0.3	
502	0.045	0.045	0.045	0.1	0.3	
504	0.045	0.045	0.045	0.1	0.3	
506	0.045	0.045	0.045	0.1	0.3	
508	0.045	0.045	0.045	0.1	0.3	
510	0.022	0.022	0.022	0.3	0.5	

------Summary of Statistics------

	Minimum	Maximum
Left Overbank N Value:	0.022	0.045
Right Overbank N Value:	0.022	0.045

Channel	N Value:	0.022	0.045
Contraction	Coefficient:	0.1	0.3
Expansion	Coefficient:	0.3	0.5

------Roughness Coefficient Check------

SECNO: 100
NT RC 01 Left overbank n value is less than 0.04

SECNO: 100
NT RC 03 Right overbank n value is less than 0.04

SECNO: 105
NT RC 01 Left overbank n value is less than 0.04

SECNO: 105
NT RC 03 Right overbank n value is less than 0.04

SECNO: 202
NT RC 01 Left overbank n value is less than 0.04

SECNO: 202
NT RC 03 Right overbank n value is less than 0.04

SECNO: 204
NT RC 01 Left overbank n value is less than 0.04

SECNO: 204
NT RC 03 Right overbank n value is less than 0.04

SECNO: 206
NT RC 01 Left overbank n value is less than 0.04

SECNO: 206
NT RC 03 Right overbank n value is less than 0.04

SECNO: 208
NT RC 01 Left overbank n value is less than 0.04

SECNO: 208
NT RC 03 Right overbank n value is less than 0.04

SECNO: 272
NT RC 01 Left overbank n value is less than 0.04

SECNO: 272
NT RC 03 Right overbank n value is less than 0.04

SECNO: 274
NT RC 01 Left overbank n value is less than 0.04

SECNO: 274
NT RC 03 Right overbank n value is less than 0.04

SECNO: 510
NT RC 01 Left overbank n value is less than 0.04

SECNO: 510
NT RC 03 Right overbank n value is less than 0.04

SECNO: 510
NT RC 05 Channel n value is less than 0.025

------NC and NH records Check------

------Transition Coefficient check------

SECNO: 510
NT TL 03 Contraction loss coefficient of 0.3 and expansion loss coefficient of 0.5 was used. However this cross section is not at a structure. Contraction loss coefficient of .1 and expansion loss coefficient of .3 should be used.

------Roughness Coefficient Check at Structures------

------Special Notes and Messages check------

---End Program---

CHECK-2 Program, XSEC Module
Cross Section Location and Alignment Review

Report File = N:\SD0339\LV\CADD\02\LVDUCK.XS2
Date: 1/25/99
Time: 5:51:14 PM

SECNO	Xlob	Xrob	Xlch	CHWID	Topwid	Structure Flow Type
100	0.00	0.00	0.00	254.20	254.10	C
105	1.00	1.00	1.00	242.00	254.00	
202	240.00	210.00	225.00	736.60	571.42	
204	420.00	450.00	524.00	965.40	461.94	
206	379.00	400.00	410.00	341.60	278.28	E
208	401.00	440.00	443.00	195.00	188.28	C
210	400.00	350.00	369.00	285.00	281.11	
212	470.00	400.00	471.00	280.00	263.29	
214	515.00	490.00	590.00	180.00	163.87	
216	532.00	465.00	560.00	70.10	356.94	
218	520.00	460.00	830.00	377.00	208.93	C
220	480.00	503.00	738.00	361.90	353.15	
222	420.00	530.00	511.00	298.10	289.25	C
224	495.00	440.00	507.00	300.00	285.56	
226	300.00	500.00	796.00	458.60	413.13	C
228	440.00	560.00	615.00	451.00	432.52	
230	540.00	450.00	513.00	300.00	285.26	
232	460.00	445.00	470.00	384.80	192.10	
234	360.00	265.00	431.00	215.00	192.19	C
236	540.00	550.00	577.00	230.00	209.02	
238	450.00	345.00	693.00	755.40	731.85	
240	438.00	500.00	455.00	550.00	525.70	
242	590.00	500.00	810.00	140.60	391.34	C
244	310.00	410.00	460.00	245.00	226.66	
246	500.00	520.00	550.00	150.00	136.83	
248	490.00	530.00	531.00	244.90	131.39	
250	580.00	584.00	834.00	73.80	409.57	
252	500.00	530.00	791.00	392.90	378.03	
254	490.00	380.00	628.00	240.40	460.46	
256	545.00	450.00	530.00	320.70	440.26	
258	370.00	457.00	435.00	224.70	317.21	
260	335.00	450.00	410.00	359.00	272.00	
262	350.00	410.00	390.00	520.00	516.38	C
264	560.00	400.00	435.00	552.50	678.33	
266	450.00	330.00	370.00	290.00	634.90	D
268	380.00	350.00	490.00	359.60	892.19	D,C
270	650.00	280.00	380.00	677.00	1282.11	
272	55.00	55.00	55.00	2712.00	1948.44	C
274	35.00	35.00	35.00	499.00	1442.81	
276	80.00	600.00	590.00	265.00	1138.61	
278	280.00	600.00	450.00	48.40	1236.25	
280	320.00	410.00	560.00	62.00	1023.72	C
282	363.00	330.00	590.00	70.00	1266.81	
284	450.00	490.00	535.00	47.00	1433.57	
286	450.00	450.00	480.00	101.00	1163.46	D,C
288	530.00	520.00	580.00	90.00	1181.41	C
292	700.00	690.00	835.00	72.00	614.24	D
294	450.00	540.00	550.00	181.50	728.90	D
296	181.00	348.00	360.00	317.00	315.24	
298	550.00	520.00	660.00	220.00	570.01	
300	580.00	410.00	540.00	220.00	176.82	
302	400.00	520.00	490.00	126.00	819.12	C
304	375.00	510.00	515.00	181.60	950.56	
306	120.00	310.00	300.00	468.60	1393.59	
500	720.00	320.00	450.00	1205.86	858.62	C
502	1070.00	1030.00	1100.00	1257.60	1460.07	D
504	940.00	950.00	945.00	1105.82	1189.43	D
506	1100.00	1100.00	1100.00	1369.34	1984.72	
508	770.00	730.00	750.00	1763.24	1688.38	D
510	1150.00	570.00	840.00	4461.00	2659.71	C

XS IF 04 D = divided flow
XS IF 05 E = extended cross section
XS IF 06 C = critical depth
XS IF 07 S = X5 record

```
-----Distance Check-----

----Channel Width Check----

SECNO:  202
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  206
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  216
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  218
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  238
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  242
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  250
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  252
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  272
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  274
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  278
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  286
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  294
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  306
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  500
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

SECNO:  510
XS CW 02  Channel width changes by a factor of two when compared to the
          the downstream cross section.

----Spacing Check----

XS SP 01 Change in HV > 0.5; (Kratio < 0.7 or Kratio > 1.4);
         (DEPTH Ratio < 0.9 or DEPTH Ratio > 1.1);
         (TOPWID Ratio < 0.5 or TOPWID Ratio > 2); and XLCH2 > 500 ft.
         Additional cross sections may need to be added between  216  and  214

         SECNO:      214       216       Diff.      Ratio
         HV:         2.12      0.37      1.75
         .01K:       1333.8    3122.39              .43
```

DEPTH:	6.18	11.31	.55
TOPWID:	163.87	356.94	2.18
XLCH:		560	

XS SP 01 Change in HV > 0.5; (Kratio < 0.7 or Kratio > 1.4);
(DEPTH Ratio < 0.9 or DEPTH Ratio > 1.1);
(TOPWID Ratio < 0.5 or TOPWID Ratio > 2); and XLCH2 > 500 ft.
Additional cross sections may need to be added between 300 and 298

SECNO:	298	300	Diff.	Ratio
HV:	0.59	1.67	1.08	
.01K:	2414.41	1236.17		1.95
DEPTH:	9.11	10.4		.88
TOPWID:	570.01	176.82		.31
XLCH:		540		

----Ineffective Flow Area----

----Location Check----

----Discharge Check----

XS DC 02 Constant discharge used for the entire profile.

----Starting WSEL Check----

XS SW 05 Starting WSEL is computed from critical depth for the first profile.

---End Program---

SECTION 3
Drafts FIS Report
Text

3 CID32003 001

Study Contractor: Nolte & Associates, Inc.

DRAFT FIS REPORT INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Draft FIS Report	3 CID32003	002

10.2 Second Revision

This study was revised in January 1999, to incorporate the results of hydrologic and hydraulic analyses of Las Vegas Wash from Lake Las Vegas (City of Henderson Corporate Limits) to Charleston Boulevard (City of Las Vegas Corporate Limits). This work was performed by Nolte & Associates (the study contractor) for the Federal Emergency Management Agency (FEMA) under Contract No. EMF-96-CO-0099 and completed in January 1999.

Authority and Acknowledgements:

The hydrologic analyses for Las Vegas Wash were performed by James M. Montgomery Consulting Engineers, Inc. (JMM) and were included in the report entitled "Las Vegas Valley Flood Insurance Study Hydrology Report," September 1991. The hydraulic analyses for this study were performed by Nolte & Associates (Nolte).

Coordination:

An initial meeting was held on November 2, 1995, to review the scope of work and the streams to be studied. Representatives from Clark County Regional Flood Control District (CCRFCD), Clark County Public Works, City of Henderson, Nolte and FEMA attended this meeting.

Nolte & Associates contacted FEMA, USACE, the U.S. Geological Survey (USGS), the Nevada Department of Transportation, National Weather Service, National Resource Conservation Service (NRCS), Clark County Regional Flood Control District, and Clark County Department of Public Works to obtain any topographic, hydrologic, and hydraulic data which would pertain to the study area.

Community Description:

This study covers Las Vegas Wash from Lake Las Vegas to Charleston Boulevard, a distance of approximately 11 miles. The basin consists of commercial and residential areas on the upstream end. The mid-portion of the basin consists of open space and several wastewater treatment plants. Open space with some residential comprises the basin's downstream portion. There is an earthen trapezoidal channel extending from Charleston Boulevard downstream to Sahara Avenue, and a concrete trapezoidal channel from this point downstream to Vegas Valley Road. Downstream of this point the channel configuration varies from a small, low-flow type channel to a 50-foot vertical ravine-type channel. Vegetation is limited to desert shrubs downstream and earth/turf/concrete-lined channel upstream.

Hydrologic Analyses:

Peak discharge values for the 10-, 50-, 100-, and 500-year floods were obtained from the report entitled "Las Vegas Valley Flood Insurance Study Hydrology Report", dated September 1991. The flow events are treated independently and in locations where two washes combine the larger discharge is used. Peak discharges were determined in this study by use of the ACOE HEC-1 hydrologic model. These flows are accepted by Clark County Flood Control District and account for existing and pending flood control improvements including existing detention basins upstream of the study limit.

Hydraulic Analyses:

Aerial photogrammetry was used to develop topographic maps with 4-foot contour intervals. Channel cross section information was digitized from photogrammetric data and supplemented with field survey data where needed. This information was used to develop the hydraulic models for delineation of the 100-year floodplain. Hydraulic analyses were performed using the U.S Army Corps of Engineers HEC-2 Water Surface Profiles computer program Version 4.6.0, February 1991.

The hydraulic control at the downstream end of Las Vegas Wash is the concrete box culvert inlet structure of the existing Lake Las Vegas Stormwater Conveyance System. The Conveyance System is to transport the 100-year storm (11,500 cfs) under Lake Las Valley Parkway. The box culvert acts as a weir crest, therefore, critical depth was used as the starting water-surface elevation for hydraulic calculations (including Floodway run).

Channel roughness coefficients (Manning's "n") used in the hydraulic computations were determined by engineering judgement and field investigation, using the tables in Open Channel Hydraulics by Ven Te Chow.

Hydraulic computations for Las Vegas Wash included modeling of four bridge crossings. These occur at Charleston Boulevard, Nellis Boulevard, Sahara Avenue, and Vegas Valley Road. There are also two low flow road crossings located at Treatment Plant Road and Telephone Line Road. Existing culverts at these locations are undersized and convey less than ten percent of the 100-year peak flow. These culverts were assumed to be blocked for the hydraulic analyses.

Based on the topographic information, there appears to be split flow during the 100-year storm immediately upstream of Sahara Avenue. Based on our field reconnaissance, this split flow will travel easterly and discharge into Range Wash just north of its confluence with Las Vegas Wash. Normal depth calculations show that flow depths will range from 0.5 to 1.0 feet, therefore, this area is mapped as Zone A0 (1-foot depth).

Floodways for Las Vegas Wash were analyzed assuming that the flow split would be confined in the main channel for the floodway run. The encroached 100-year flood

elevations (with no flow split allowed) were compared to the unencroached 100-year flood elevations (with the flow split allowed) to make certain that the 1-foot surcharge was not exceeded.

SECTION 4
Mapping
Information

Study Contractor: Nolte & Associates, Inc.

BFE DESCRIPTION INDEX

LAS VEGAS, NV

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

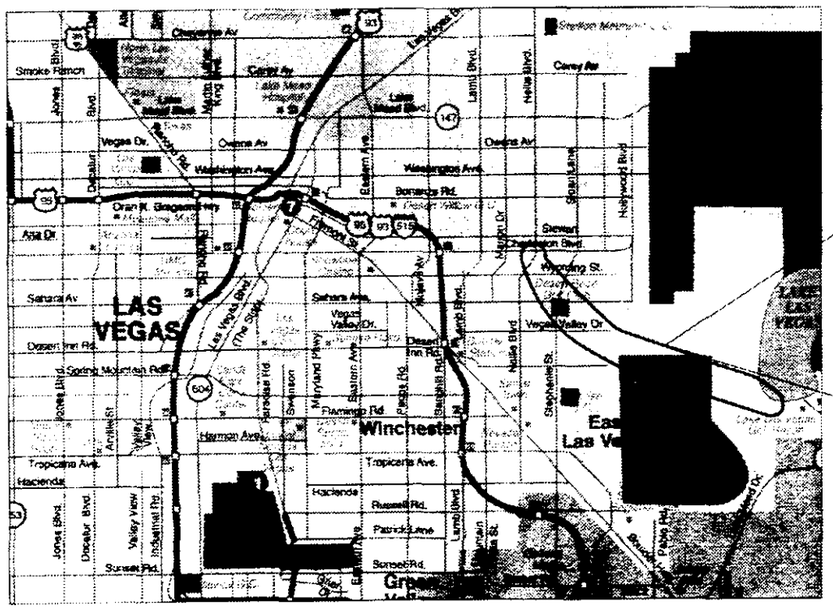
STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	BFE Description – Duck / LV Wash Conf.		Pg. 2
Las Vegas Wash	BFE Description – Duck / LV Wash Conf.	4C CID32003	002

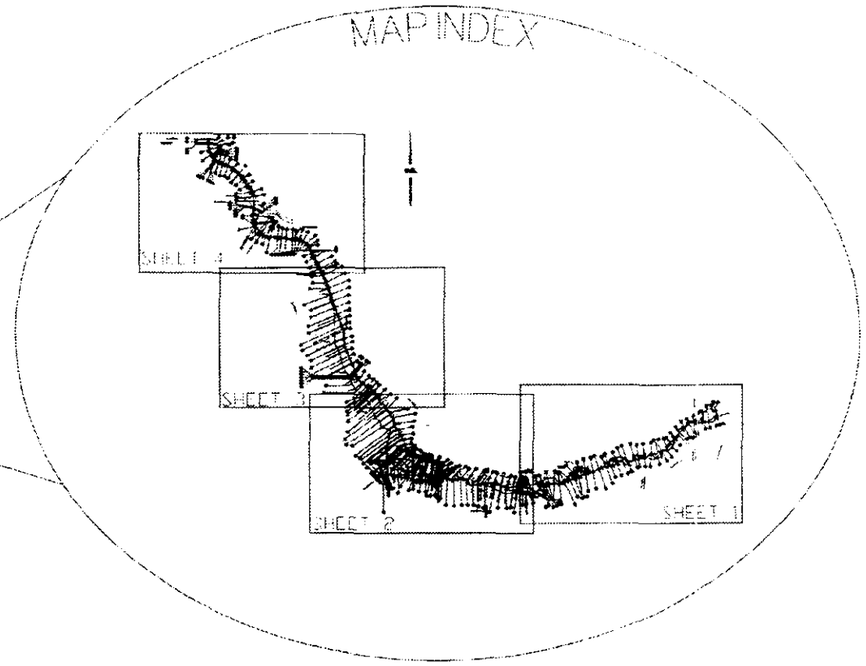
BFE Description for confluence of Duck Creek and Las Vegas Wash

The BFE's at the confluence of Duck Creek and Las Vegas Wash were developed as follows:

1. Both models were mapped including BFE's
   - LVDUCK.DAT Lake Las Vegas to Duck Creek, see pg 1 of file 4C CID32003 002
   - LV.DAT Duck Creek to Charleston Blvd., see pg 2 of file 4C CID32003 002
2. A line representing the equal water surface elevation between LV.DAT & LVDUCK.DAT was developed from Duck Creek (Rebel Rd.) to the downstream limit of LV.DAT (XS306).
   - CAD Layer "Prma_lv_lvduck_ae_combined", see pg 3 of file 4C CID32003 002
3. BFE's were plotted using the new line as an angle point between the two models.

LAS VEGAS WASH
FLOOD INSURANCE STUDY
CLARK COUNTY, NEVADA





PREPARED FOR
FEDERAL EMERGENCY MANAGEMENT AGENCY
JANUARY 1999

DATE: SCALE: SERVER: SGW SERVICE: NONE PATH: DRAWING NAME: PLOTTING VIEW: NONE DESIGNER: PROJ MGR:

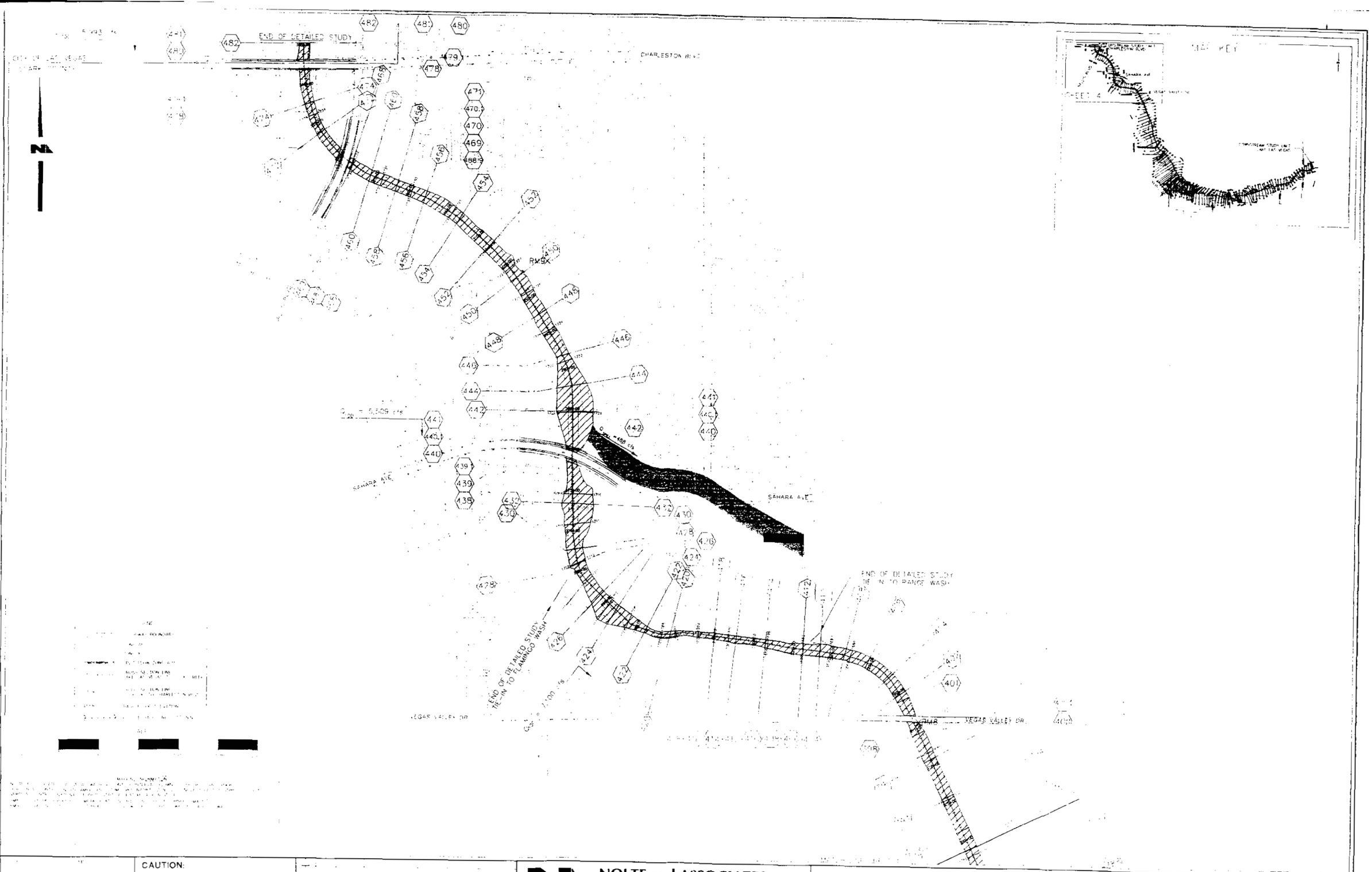
CAUTION:
The engineer preparing these plans will not be responsible for or liable for unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

NO	BY	DATE	REVISIONS

NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors
15090 Avenue of Science, Suite 101, San Diego, CA 92128

LAS VEGAS WASH
FLOOD INSURANCE STUDY
CLARK COUNTY, NEVADA

SHEET
TITLE
OF 4 SHEETS
JOB NO
SD0339

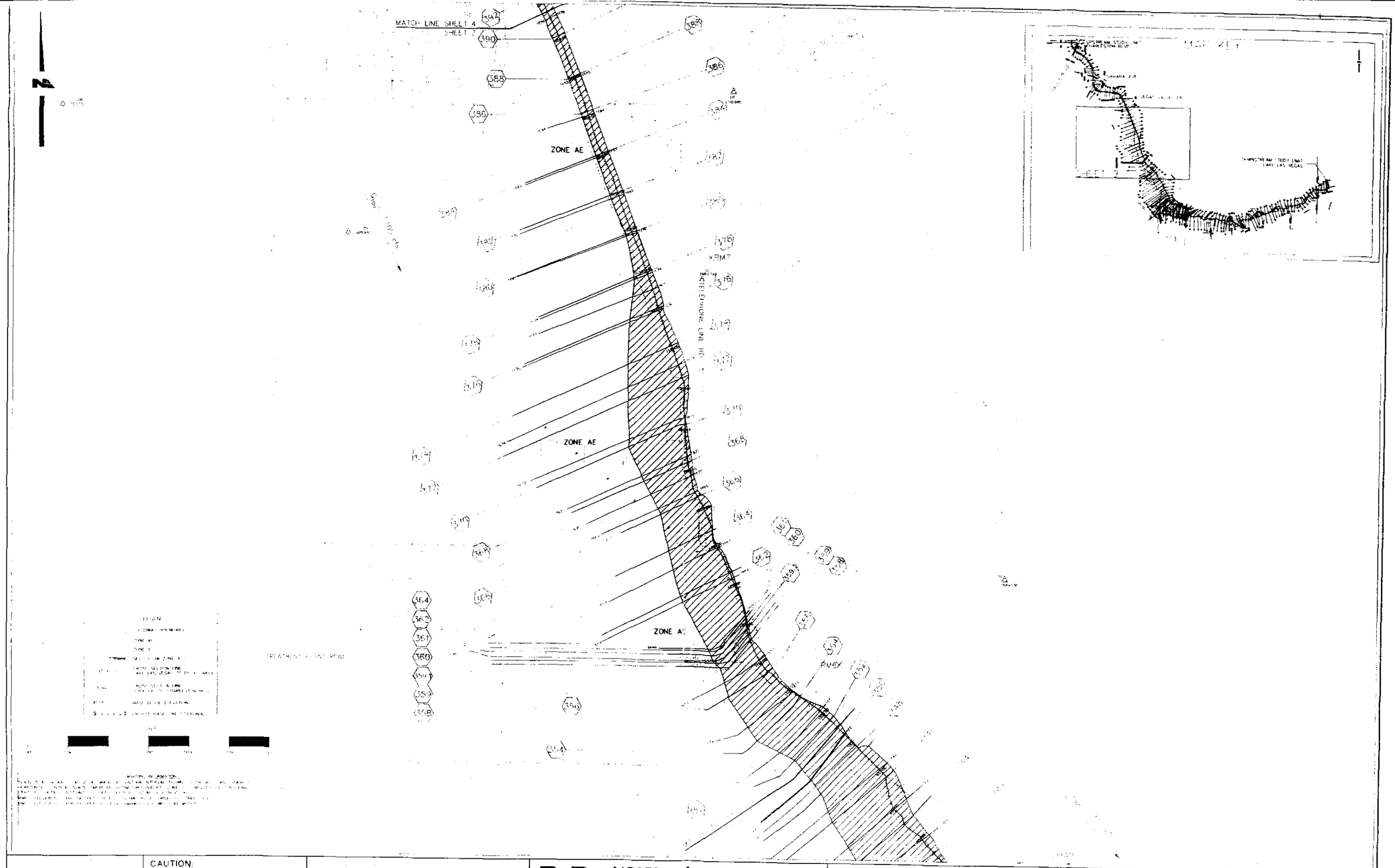


CAUTION:

NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors
15090 Avenue of Science, Suite 101, San Diego, CA 92128

LAS VEGAS WASH
FLOOD INSURANCE STUDY
CLARK COUNTY, NEVADA

SHEET 4 OF 4 SHEETS
SD0339



CAUTION:

NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors
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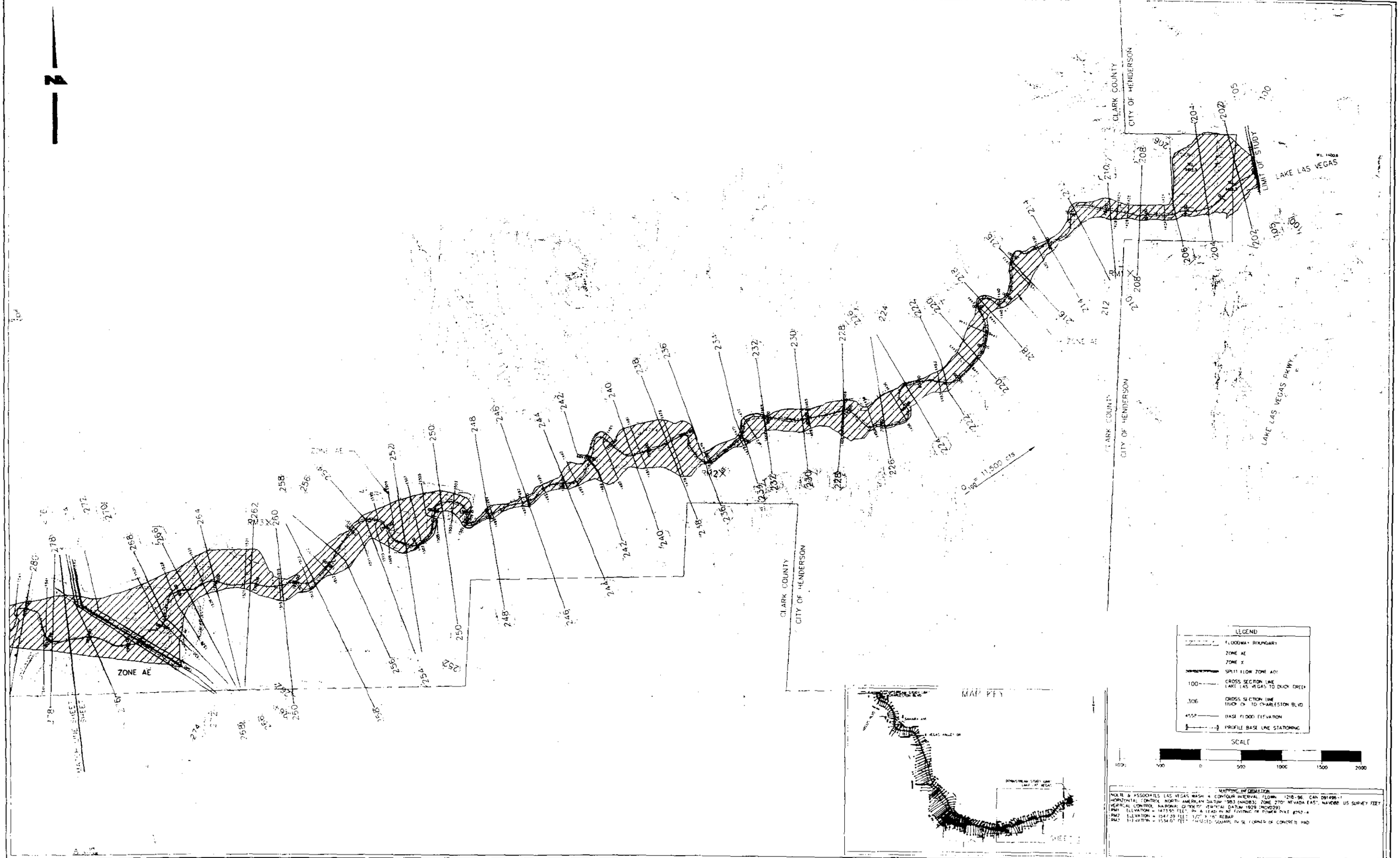
LAS VEGAS WASH
FLOOD INSURANCE STUDY
CLARK COUNTY, NEVADA



CAUTION:

The engineer preparing these plans will not be responsible for or liable for unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the engineer of these plans.

NO.	BY	DATE	REVISIONS

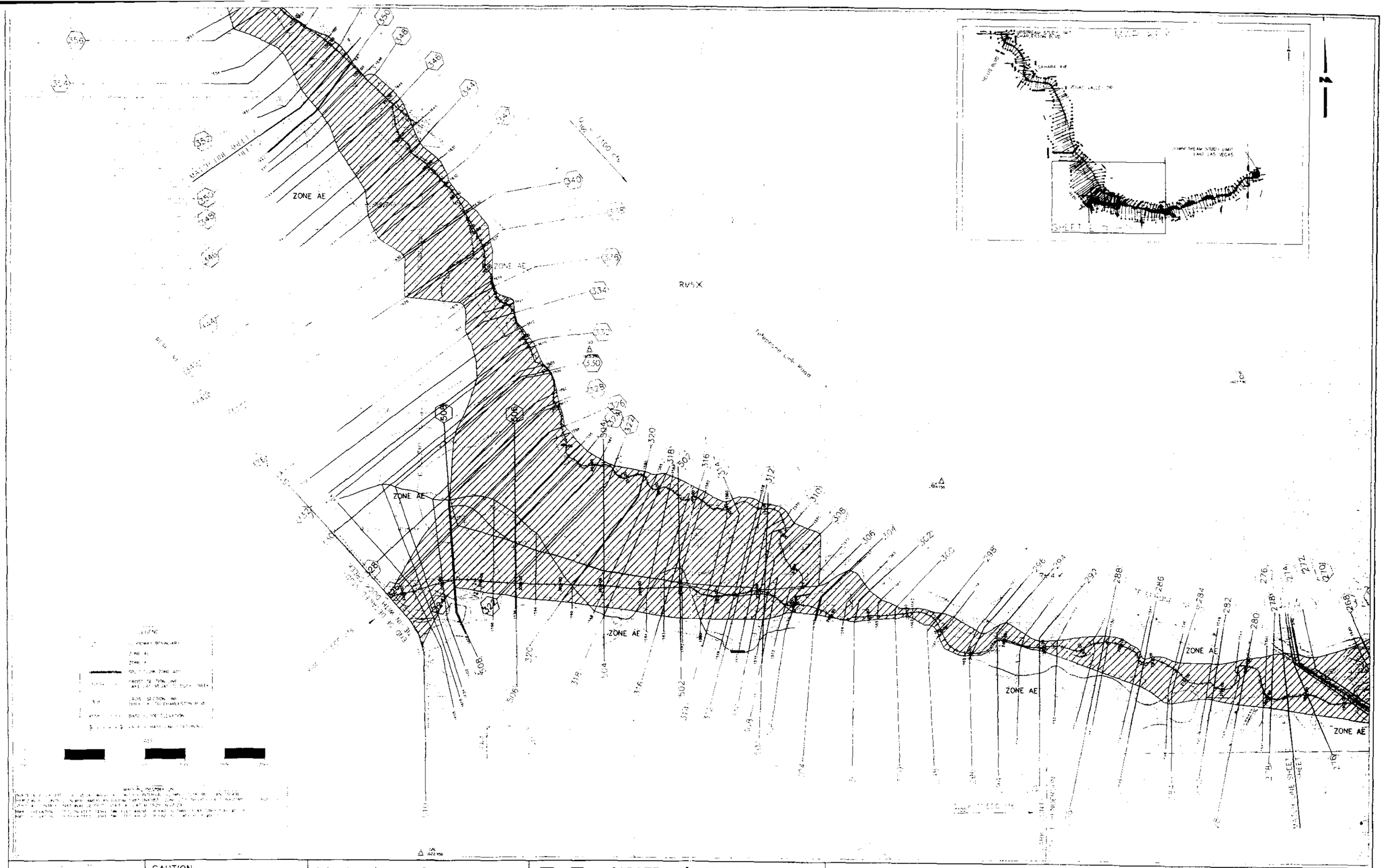
NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors

DENVER (303) 791-0888 · MANTECA (209) 239-1660 · ORANGE COUNTY (714) 486-0730 · SACRAMENTO (916) 641-1500 · SAN JOSE (408) 297-3600 · SAN DIEGO (619) 382-0500 · S. SAN FRANCISCO (415) 871-3440 · WALNUT CREEK (510) 934-9088

15090 Avenue of Science, Suite 101, San Diego, CA 92128

LAS VEGAS WASH
FLOOD INSURANCE STUDY
CLARK COUNTY, NEVADA

SHEET 1 OF 4 SHEETS
JOB NO SD0339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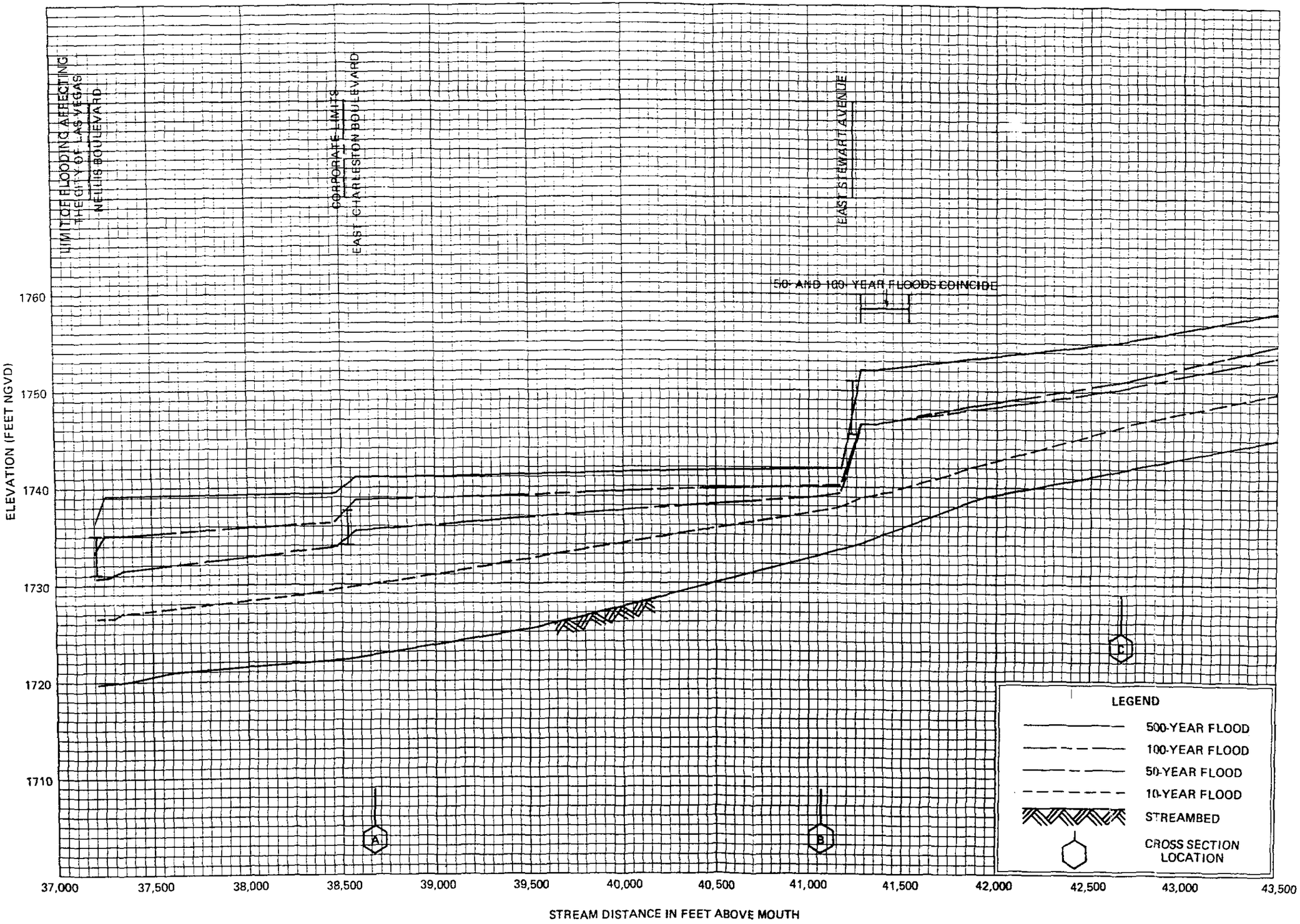
RM5X
ZONE AE
ZONE AE
ZONE AE



FLOOD PROFILES

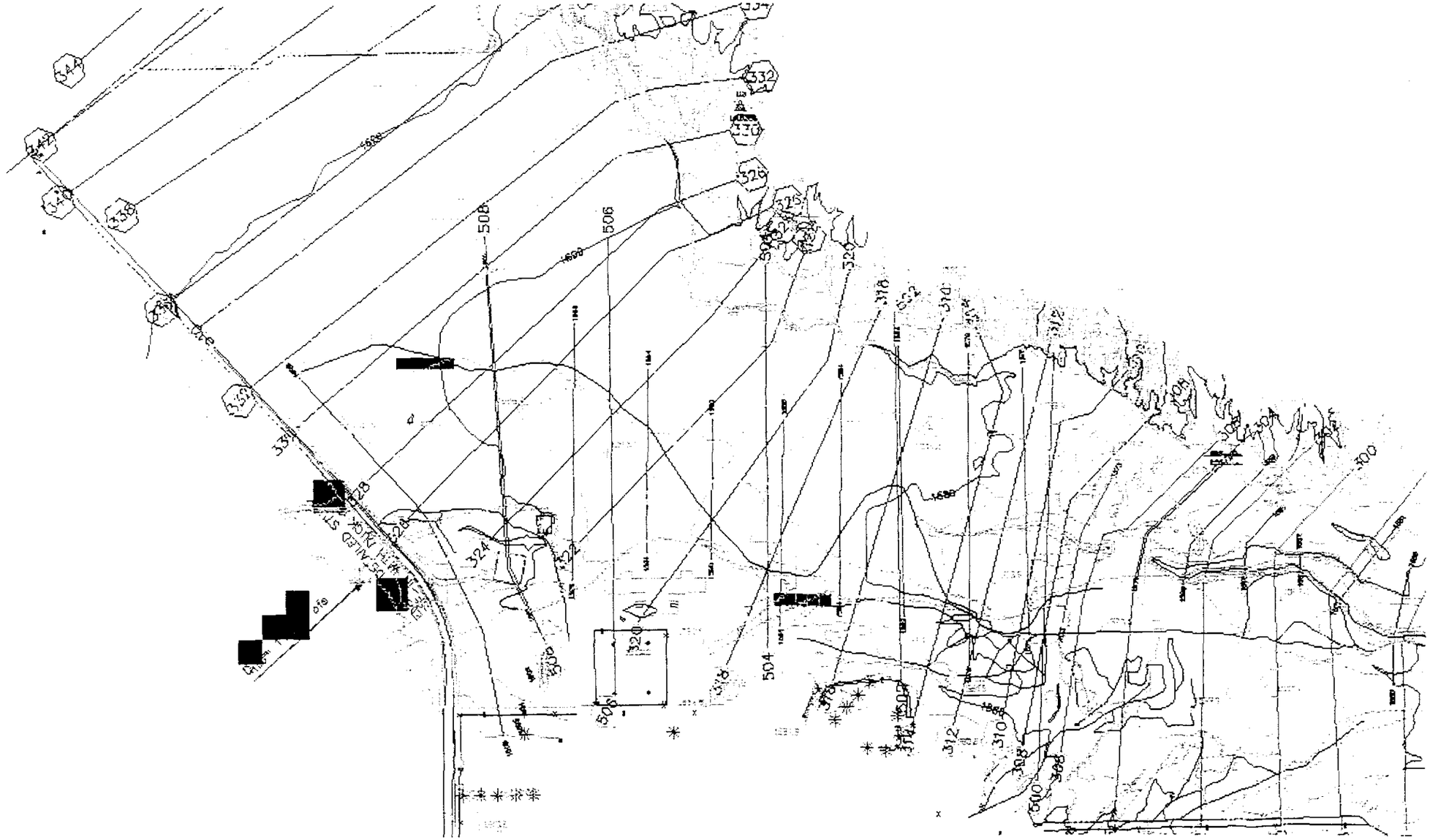
LAS VEGAS WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

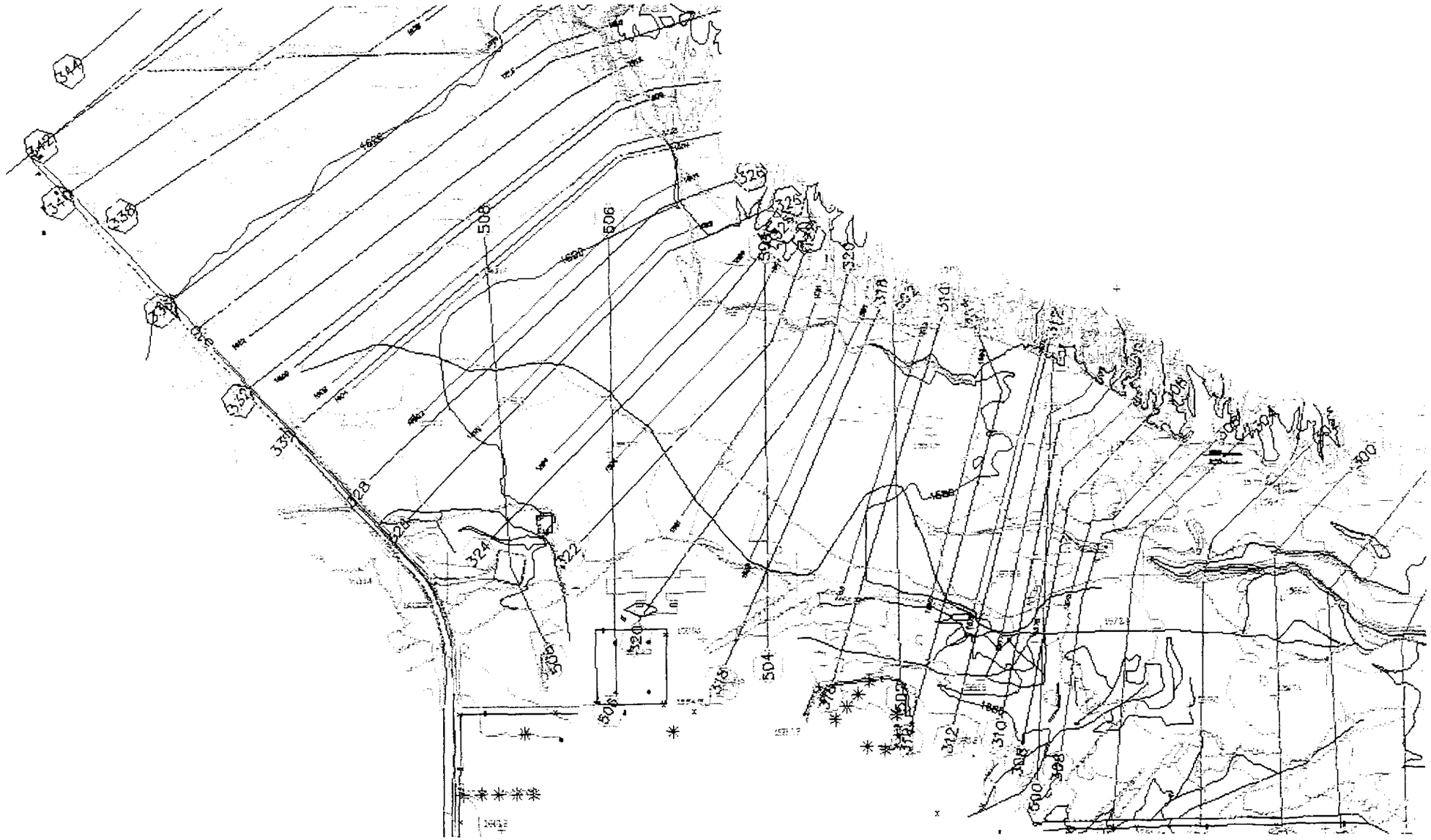
CLARK COUNTY, NV
AND INCORPORATED AREAS

20P

BFE's from Lake Las Vegas to Duck Creek - HEC-2 model LVDUCK.DAT



BFE's from Duck to Charleston - HEC-2 model LV.DAT



BFE's from combined analysis

LAKE LAS VEGAS CONSTRUCTION PLANS

DUCK CREEK FIS MAPPING

VEGAS VALLEY DRIVE CONSTRUCTION PLANS

FLAMINGO WASH FIS MAPPING

LINKS GOLF COURSE CONSTRUCTION PLANS

RANGE WASH MAPPING

SAHARA AVE. BRIDGE PLANS

CHARLESTON BLVD./NELLIS BLVD. BRIDGE PLANS

LAKE LAS VEGAS CONSTRUCTION PLANS

Study Contractor: Nolte & Associates, Inc.

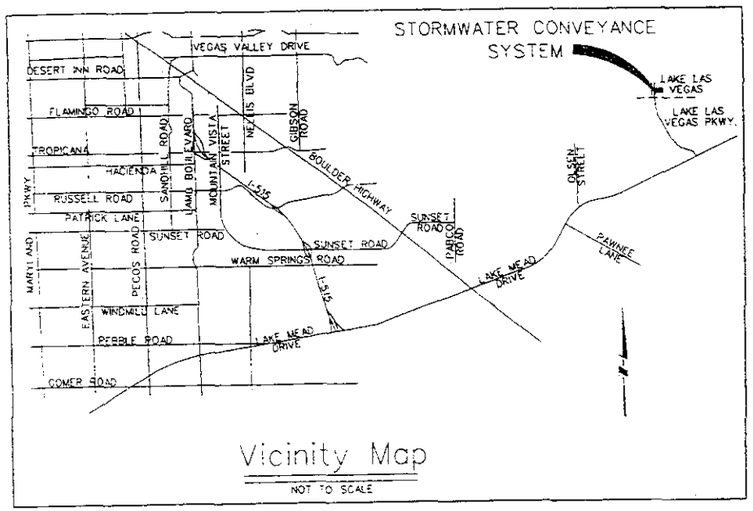
SURVEYING & MAPPING INDEX

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Lake Las Vegas Construction Plans	4A CID32003	002
Duck Creek	Duck Creek FIS Mapping	4A CID32003	003
Las Vegas Wash	Vegas Valley Drive Construction Plans	4A CID32003	004
Flamingo Wash	Flamingo Wash FIS Mapping	4A CID32003	005
Las Vegas Wash	Links Golf Course Construction Plans	4A CID32003	006
Range Wash	Range Wash Mapping	4A CID32003	007
Las Vegas Wash	Sahara Ave. Bridge Plans	4A CID32003	008
Las Vegas Wash	Charleston Blvd./Nellis Blvd. Bridge Plans	4A CID32003	009
Las Vegas Wash	Aerial Photos	4A CID32003	010
Las Vegas Wash	Aerial Photos	4A CID32003	011
Las Vegas Wash	Aerial Photos	4A CID32003	012
Las Vegas Wash	Aerial Photos	4A CID32003	013
Las Vegas Wash	Elevation Reference Mark Locations	4A CID32003	014
Las Vegas Wash	Horizontal & Vertical Control	4A CID32003	015



LAKE . LAS VEGAS
RESORT

LAKE LAS VEGAS

Drawings for the Construction of
LAKE LAS VEGAS PARKWAY EXTENSION -- STORMWATER CONVEYANCE SYSTEM

1997

JOHN R. CLARK
CIVIL
No. 11504
12-3-97

AGENCY	REVIEWED BY	DATE
CITY OF HENDERSON PUBLIC WORKS		
CITY OF HENDERSON FLOOD CONTROL		
CITY OF HENDERSON UTILITY SERVICES		
CITY OF HENDERSON TRAFFIC ENGINEER		
CITY OF HENDERSON BUILDING DEPT		
CITY OF HENDERSON FIRE DEPARTMENT		
NEVADA POWER COMPANY		
SOUTHWEST GAS CORPORATION		
SPRINT/CENTRAL TELEPHONE, NEVADA	Nyla Smith	12.16.97
FALCON CABLE		

MONTGOMERY WATSON
Las Vegas, Nevada

MONTGOMERY WATSON,
3014 WEST CHARLESTON BLVD.
LAS VEGAS, NV. 89102-1944
(702) 878-8010

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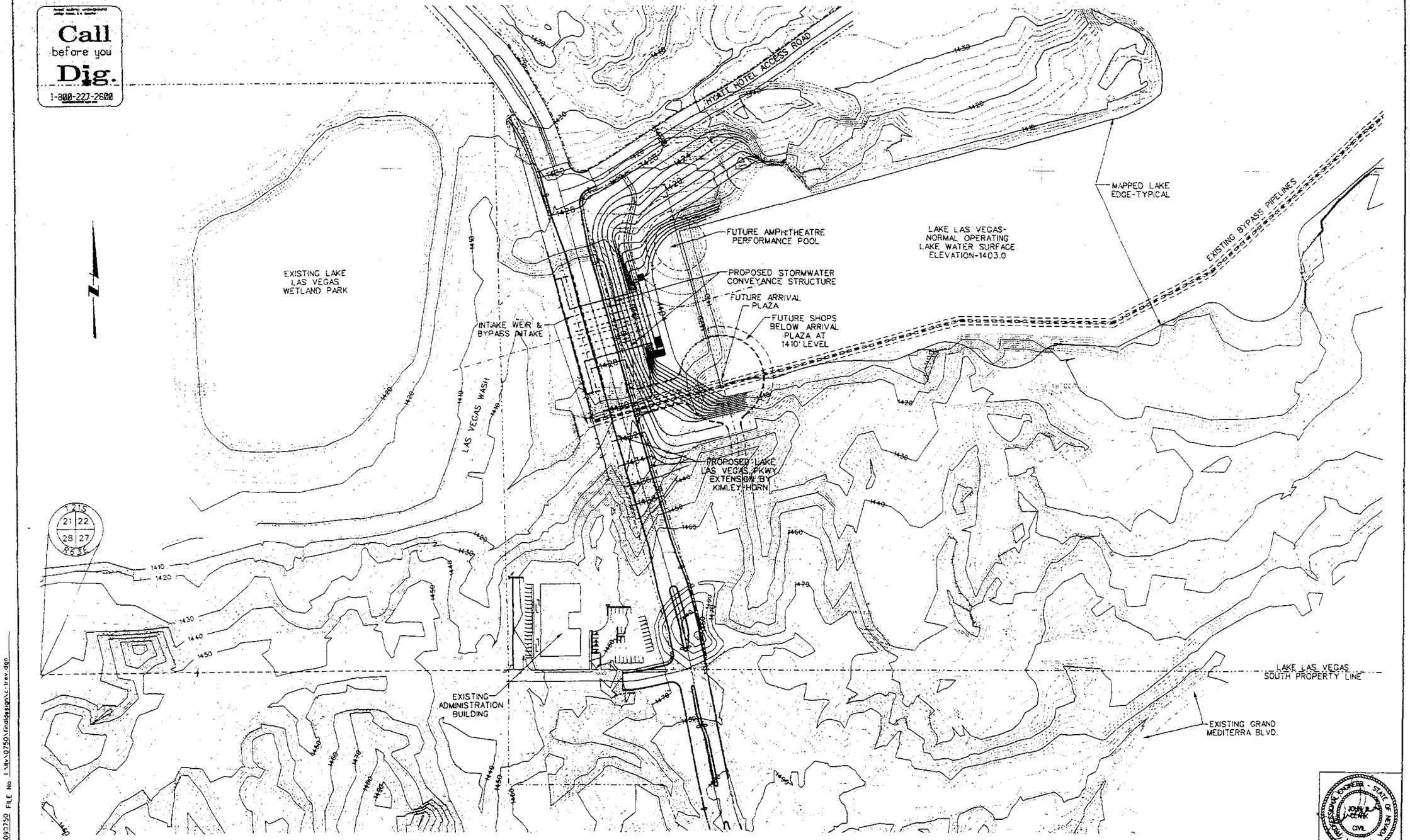
Call before you Dig.
1-800-227-2600



DATE 09-DEC-1997 TIME 11:22
JOB No. 1327063.0095750 FILE No. L:\llv\0750\finaldesign\vc-1rev.dgn

REV	DATE	BY	DESCRIPTION

SCALE: 1" = 100'

WARNING 0 ½ 1 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED J. LISTON
DRAWN
CHECKED

SUBMITTED
PROJECT ENGINEER R. C. E. NO. DATE
RECOMMENDED
MONTGOMERY WATSON R. C. E. NO. DATE

MONTGOMERY WATSON
Las Vegas, Nevada

MONTGOMERY WATSON
3014 WEST CHARLESTON BLVD
LAS VEGAS, NV 89102
(702) 878-8010

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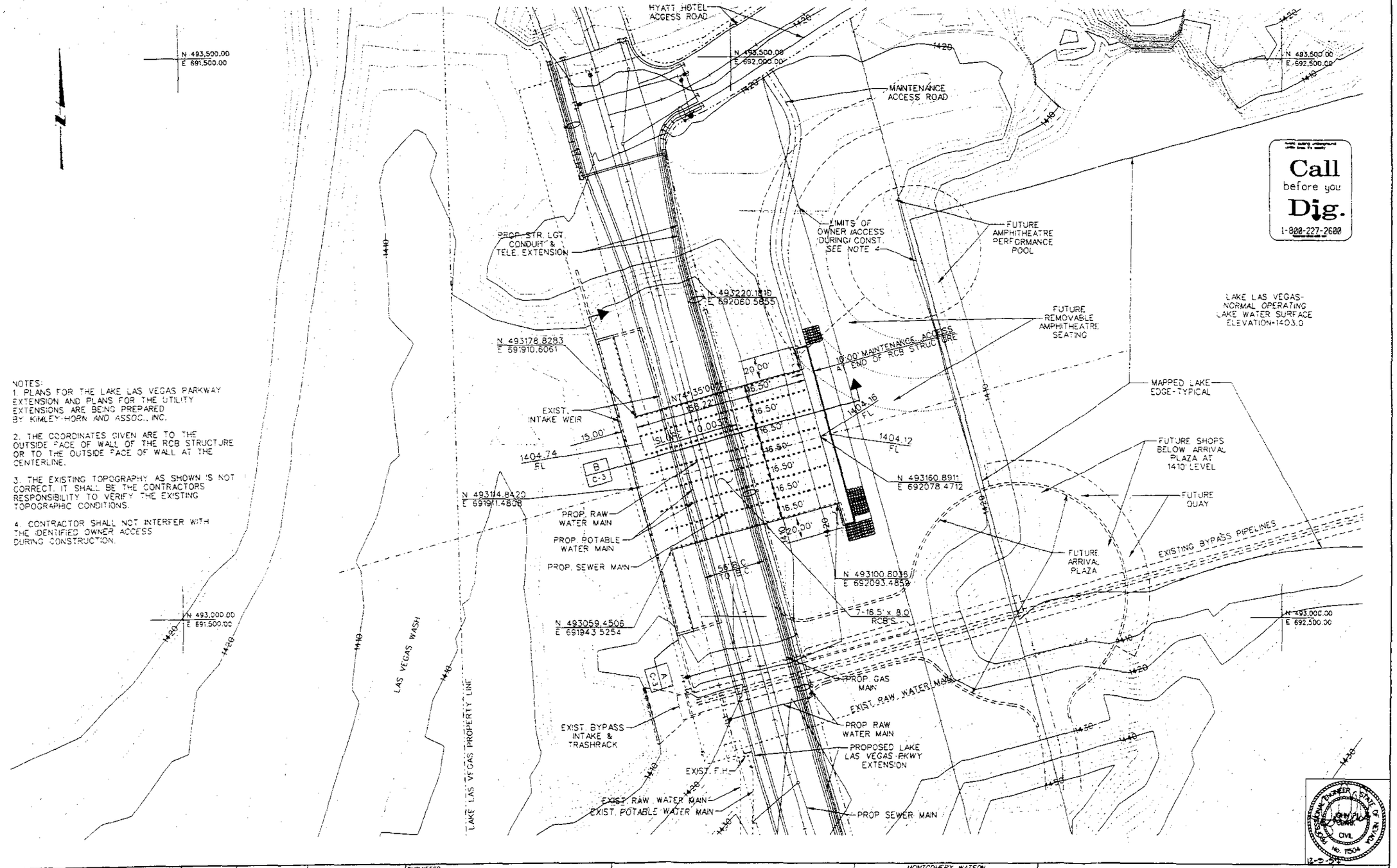
LAKE LAS VEGAS
LAKE LAS VEGAS PARKWAY EXTENSION - STORMWATER CONVEYANCE SYSTEM
LOCATION MAP

SHEET C-1
SHEET 5 OF 19 SHEETS

PROFESSIONAL ENGINEER - STATE OF NEVADA
JOHN A. LEWIS
CIVIL
No. 11504
12-9-97



NOTES:
1. PLANS FOR THE LAKE LAS VEGAS PARKWAY EXTENSION AND PLANS FOR THE UTILITY EXTENSIONS ARE BEING PREPARED BY KIMLEY-HORN AND ASSOC., INC.

2. THE COORDINATES GIVEN ARE TO THE OUTSIDE FACE OF WALL OF THE RCB STRUCTURE OR TO THE OUTSIDE FACE OF WALL AT THE CENTERLINE.

3. THE EXISTING TOPOGRAPHY AS SHOWN IS NOT CORRECT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE EXISTING TOPOGRAPHIC CONDITIONS.

4. CONTRACTOR SHALL NOT INTERFERE WITH THE IDENTIFIED OWNER ACCESS DURING CONSTRUCTION.

Call before you Dig. 1-800-227-2600

DATE 09-DEC-1997 TIME 11:20
JOB No 1327063 01090750 FILE No. I:\Mx\07301\finaldesign\c2rev.dgn

REV	DATE	BY	DESCRIPTION

SCALE: 1" = 40'

WARNING: 0 1/2 1" IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED J. LISTON
DRAWN
CHECKED

	R. C. E. NO.	DATE
SUBMITTED		
PROJECT ENGINEER		
RECOMMENDED		
MONTGOMERY WATSON		

MONTGOMERY WATSON
Las Vegas, Nevada

MONTGOMERY WATSON
3014 WEST CHARLESTON BLVD
LAS VEGAS, NV 89102
(702) 878-8010

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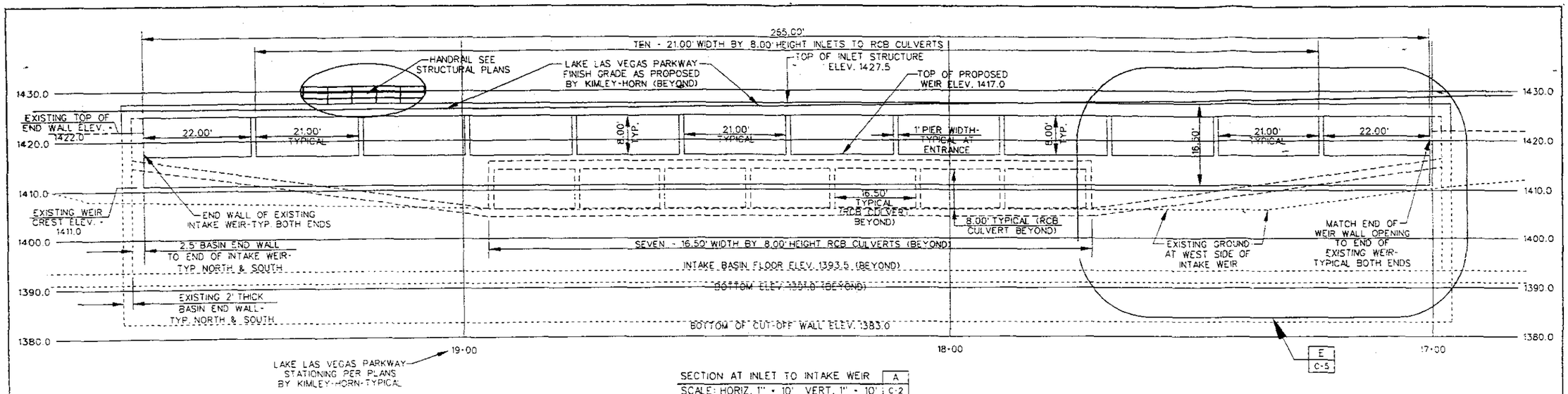
LAKE LAS VEGAS
LAKE LAS VEGAS PARKWAY EXTENSION - STORMWATER CONVEYANCE SYSTEM
SITE PLAN

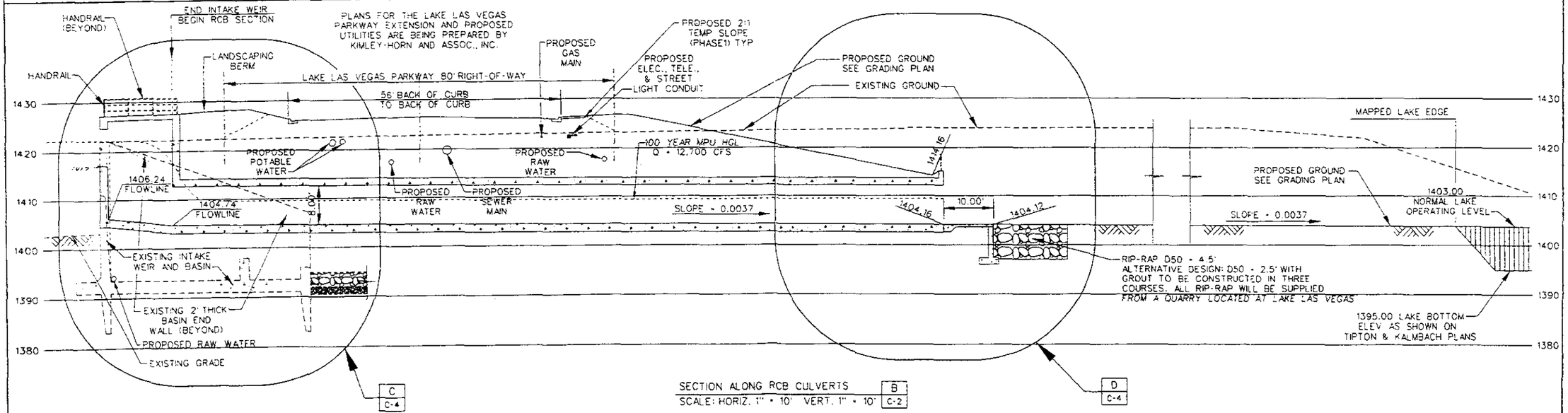
SHEET C-2
SHEET 6 OF 19 SHEETS

REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA JOHN PAUL KIMLEY CIVIL No. 7504
12-2-97



SECTION AT INLET TO INTAKE WEIR — A / C-2

SCALE: HORIZ. 1" = 10' VERT. 1" = 10'



SECTION ALONG RCB CULVERTS — B / C-2

SCALE: HORIZ. 1" = 10' VERT. 1" = 10'

REGISTERED PROFESSIONAL ENGINEER — STATE OF NEVADA — JOHN P. CLARK — CIVIL — No. 11504

REV	DATE	BY	DESCRIPTION

SCALE: AS SHOWN

WARNING: 0 ½ 1 — IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED — DRAWN — CHECKED

SUBMITTED — PROJECT ENGINEER — R. C. E. NO. — DATE

RECOMMENDED — MONTGOMERY WATSON — R. C. E. NO. — DATE

MONTGOMERY WATSON
Las Vegas, Nevada

MONTGOMERY WATSON
3014 WEST CHARLESTON BLVD
LAS VEGAS, NV 89102
(702) 878-8010

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LAKE LAS VEGAS

LAKE LAS VEGAS PARKWAY EXTENSION - STORMWATER CONVEYANCE SYSTEM

REINFORCED CONCRETE BOX CULVERT DETAILS

SHEET C-3

SHEET 7 OF 19 SHEETS

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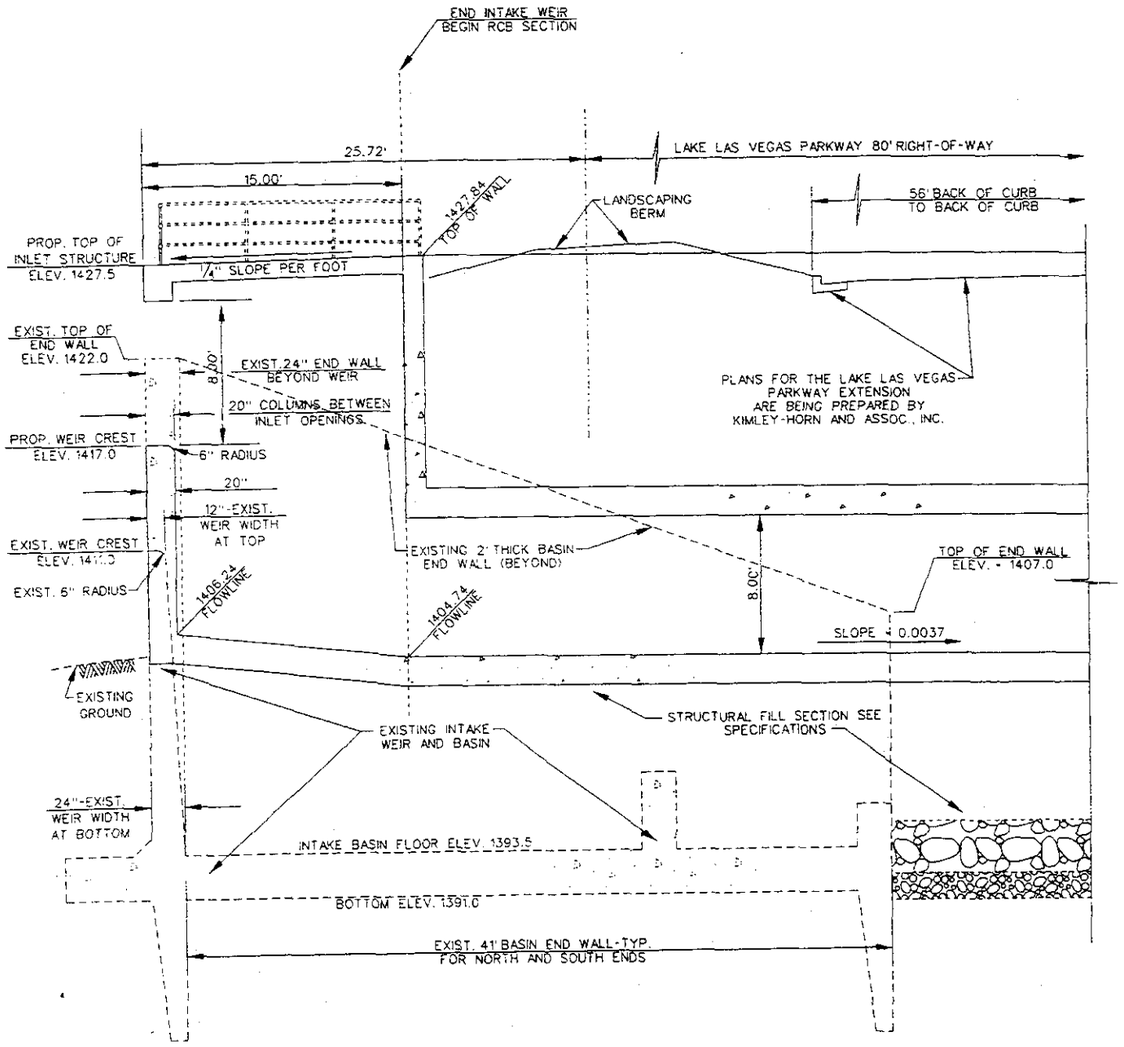
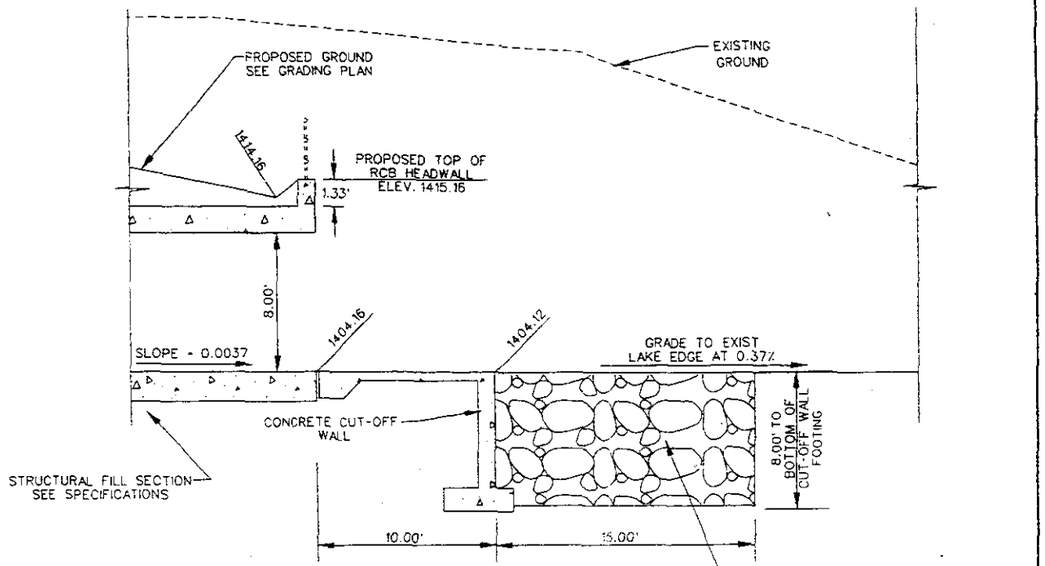


SECTION - INLET TO RCB'S AT EXISTING INTAKE WEIR | C
SCALE: HORIZ. 1" = 4' VERT. 1" = 4' | C-3



SECTION AT OUTLET OF RCB CULVERTS | D
SCALE: HORIZ. 1" = 4' VERT. 1" = 4' | C-3

DATE 08-DEC-1997 TIME 11:24
306 No. 132706.3.00R0750 FILE No. F:\NV\0750\finaldesign\c-4rev3.dgn

REV.	DATE BY	DESCRIPTION

SCALE: AS SHOWN

WARNING: 0 1/2 1 — IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED J. LISTON
DRAWN
CHECKED

SUBMITTED
PROJECT ENGINEER R. C. E. NO. DATE
RECOMMENDED
MONTGOMERY WATSON R. C. E. NO. DATE

MONTGOMERY WATSON
Las Vegas, Nevada

MONTGOMERY WATSON
3014 WEST CHARLESTON BLVD
LAS VEGAS, NV 89102
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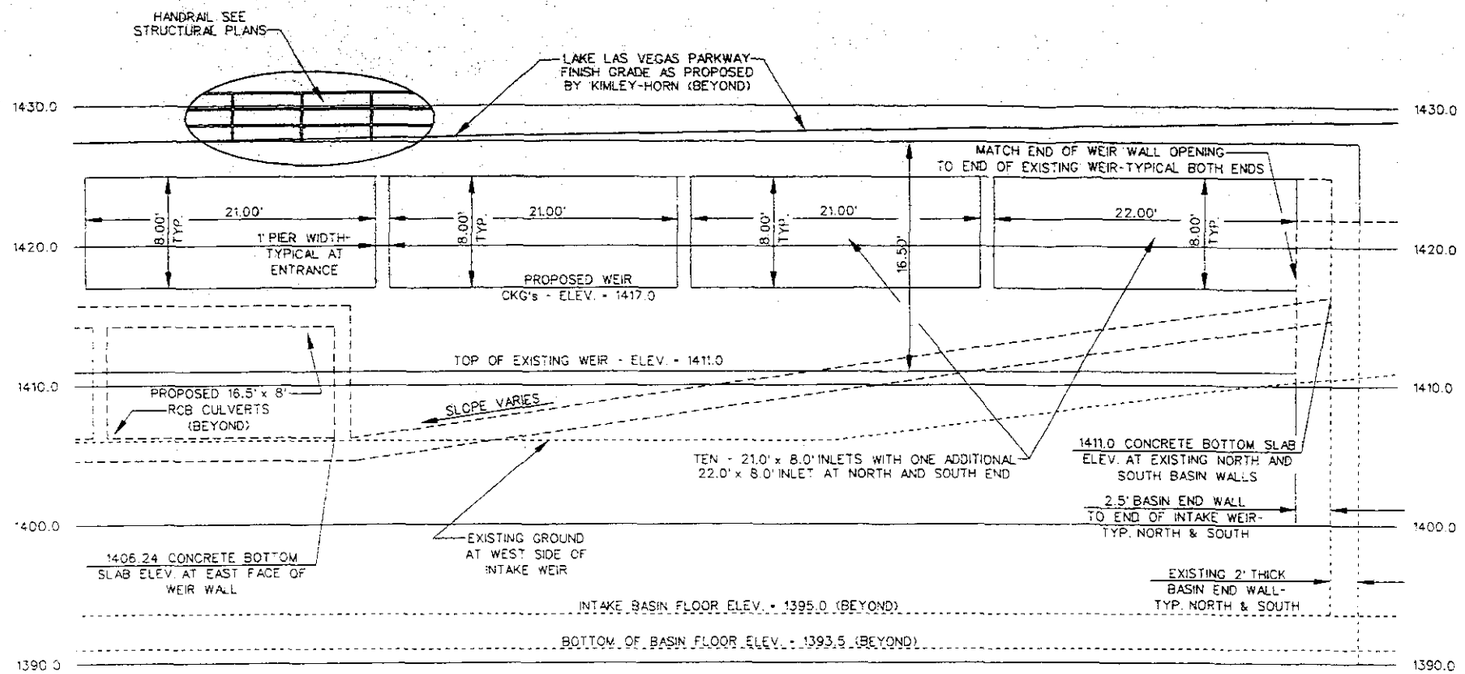
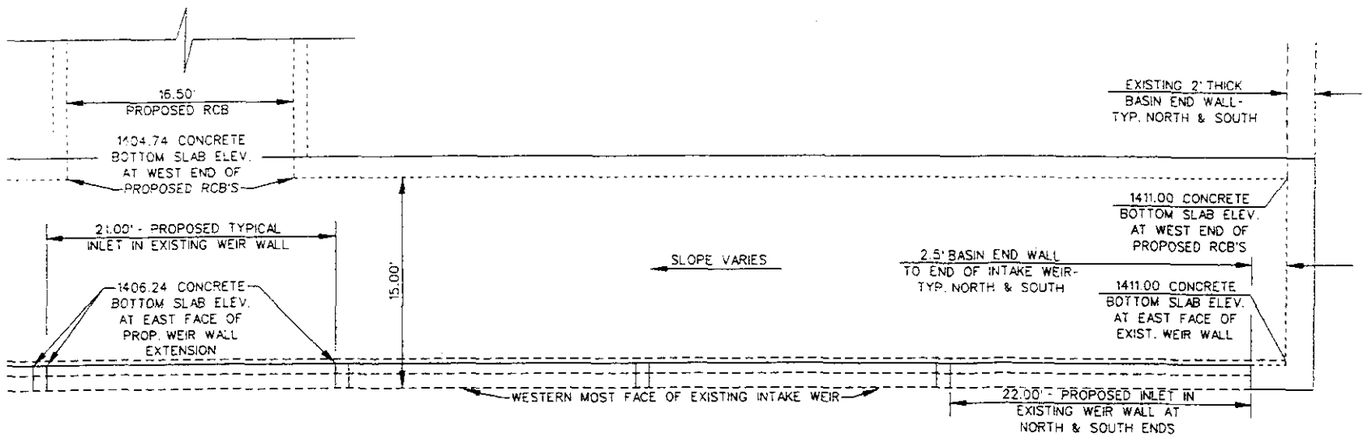
LAKE LAS VEGAS
LAKE LAS VEGAS PARKWAY EXTENSION - STORMWATER CONVEYANCE SYSTEM

REINFORCED CONCRETE BOX CULVERT DETAILS

SHEET C-4
SHEET 8 OF 19 SHEETS

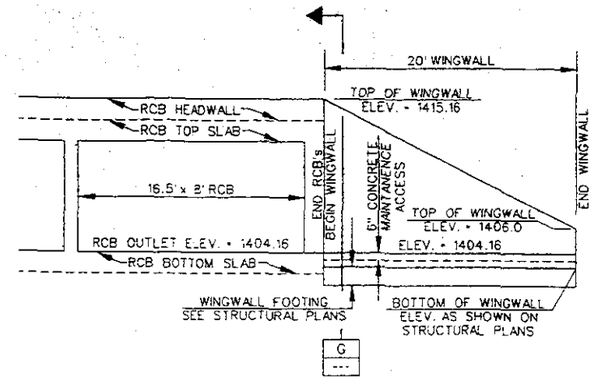


ELEVATION - WEST FACE OF EXISTING WEIR WALL

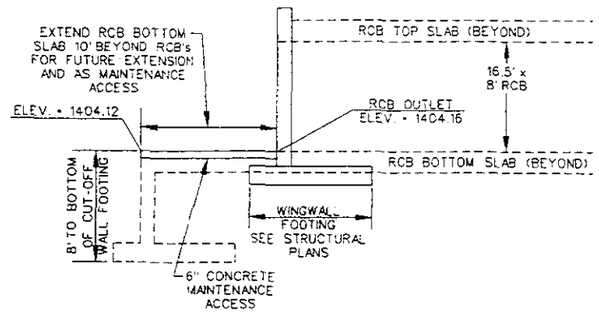


TOP VIEW - CONCRETE BOTTOM SLAB AT ENTRANCE TO RCB'S - TYPICAL FOR NORTH AND SOUTH ENDS

DETAILS AT ADDITIONAL INLETS TO INTAKE WEIR | E | C-3
SCALE: HORIZ. 1" = 5' VERT. 1" = 5'



ELEVATION - EAST FACE OF WINGWALL



WINGWALL SECTION | G | ---

WINGWALL DETAILS | F | C-6
SCALE: HORIZ. 1" = 5'
VERT. 1" = 5'

DATE 09-DEC-1997 TIME 11:25
JOB No. 1327003.01090750 FILE No. I:\div10\750\finaldesign\c5-2rev3.dgn

REV	DATE	BY	DESCRIPTION

SCALE: AS SHOWN

WARNING 0 1/2 1 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED J. LASTON
DRAWN
CHECKED

SUBMITTED
PROJECT ENGINEER R. C. E. NO. DATE
RECOMMENDED
MONTGOMERY WATSON R. C. E. NO. DATE

MONTGOMERY WATSON
Las Vegas, Nevada

MONTGOMERY WATSON
3014 WEST CHARLESTON BLVD
LAS VEGAS, NV. 89102
(702) 878-8010

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REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA JOHN A. CLARK CIVIL No. 7504 12-9-97

LAKE LAS VEGAS
LAKE LAS VEGAS PARKWAY EXTENSION - STORMWATER CONVEYANCE SYSTEM
REINFORCED CONCRETE BOX CULVERT DETAILS

SHEET C-5
SHEET 9 OF 19 SHEETS

MAPPED LAKE EDGE

EXISTING BYPASS PIPELINES

RIP-RAP D50 = 4.5'
ALTERNATIVE DESIGN: D50 = 2.5' WITH GROUT. TO BE CONSTRUCTED IN THREE LIFTS. ALL RIP-RAP WILL BE SUPPLIED FROM A QUARRY LOCATED AT LAKE LAS VEGAS

FUTURE ARRIVAL PLAZA
ELEV. = 1425.0±

NOTE: THE EXISTING TOPOGRAPHY AS SHOWN IS NOT CORRECT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE EXISTING TOPOGRAPHIC CONDITIONS.

TOP OF WINGWALL
ELEV. = 1406.0

TOP OF WINGWALL
ELEV. = 1415.16

TOP OF WINGWALL
ELEV. = 1415.16

TOP OF WINGWALL
ELEV. = 1406.0

HYATT HOTEL ACCESS ROAD

MAINTENANCE ACCESS
END RCB CONSTRUCTION

LAKE LAS VEGAS PARKWAY

CULVERT WINGWALL DETAILS
F
C-5

Avoid cutting underground utility lines. It's costly.

Call before you **Dig.**
1-800-227-2600

PROFESSIONAL ENGINEER - STATE OF NEVADA - JOHN F. CLARK - CIVIL - No. 7504

12-2-97

REV	DATE	BY	DESCRIPTION

SCALE: 1" = 30'

WARNING: 0 ½ 1 — IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED JT. LISTON
DRAWN
CHECKED

SUBMITTED
PROJECT ENGINEER R. C. E. NO. DATE
RECOMMENDED
MONTGOMERY WATSON R. C. E. NO. DATE

MONTGOMERY WATSON
Las Vegas, Nevada

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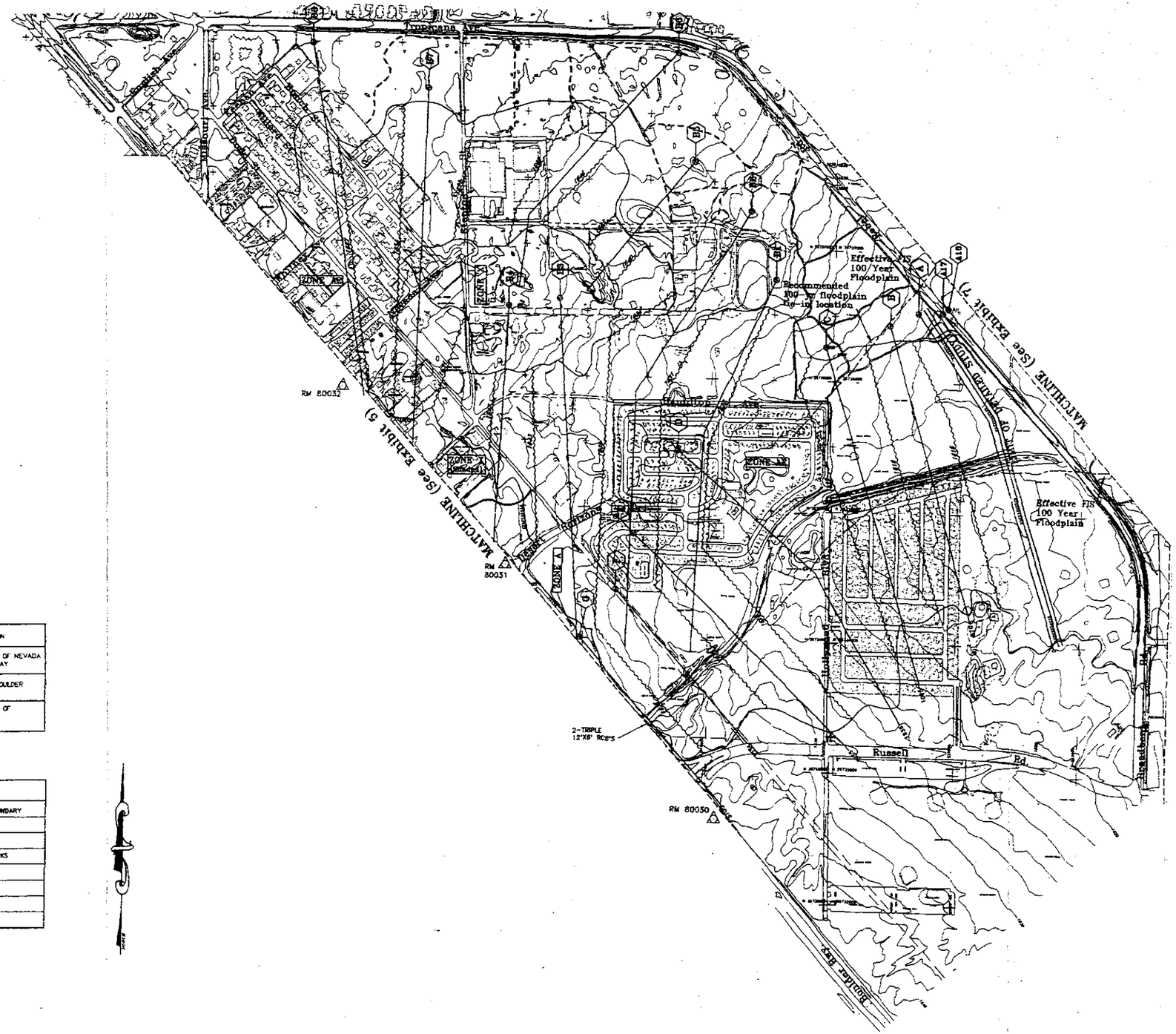
LAKE LAS VEGAS
LAKE LAS VEGAS PARKWAY EXTENSION - STORMWATER CONVEYANCE SYSTEM
ROUGH GRADING PLAN

SHEET C-6
SHEET 10 OF 19 SHEETS

DATE 09-DEC-1997 TIME 11:27
Job No 1327063.01\090750 File No. f:\civil\0750\land\design\c-6rev.dgn

DUCK CREEK FIS MAPPING



REFERENCE MARK	ELEVATION (FT. NGVD)	DESCRIPTION OF LOCATION
80032	1657.60	100' S. OF INTERSECTION OF NEVADA AV AND BOULDER HIGHWAY
80031	1647.38	BOULDER HIGHWAY AT BOULDER LAKES RESORT
80030	1639.79	250' S. OF INTERSECTION OF RUSSELL ROAD AND BOULDER HIGHWAY

Legend	
	100-YEAR FLOODPLAIN BOUNDARY
11 12	HYDRAULIC BASE LINE
21.3 A	CROSS SECTION
RM 80000	ELEVATION REFERENCE MARKS
4210	BASE FLOOD ELEVATION
Zone AE	ZONE DESIGNATION
XXXXXXX	ZONE LIMIT
	MATCHLINE

Nimbus Engineers
3765 Baker Ln.
Reno NV. 89509
(702)689-8850

SCALE: 1"=400'
DATE: JUNE 1997
FILE: 3172H8T8.DWG
JOB NO: 9317
CONTRACT: EMW94C4648
REVISIONS:

EXHIBIT 6
Duck Creek Hydraulic Work Map

SHEET NO. 6 OF 7

3: 40: 27 1997

Effective FIS
100 Year
Floodplain

Las Vegas Wash
Zone A

Zone X
(Shaded)

Duck Creek
Zone A

Recommended 100-year
floodplain lie-in location

Effective FIS
100 Year
Floodplain

Light Rail
Approximate Station

MATCHLINE (See Exhibit 6)

Legend	
	100-YEAR FLOODPLAIN BOUNDARY
11 12	HYDRAULIC BASE LINE
21.3	CROSS SECTION
RM 80000	ELEVATION REFERENCE MARKS
	BASE FLOOD ELEVATION
Zone AE	ZONE DESIGNATION
XXXXXXX	ZONE LIMIT
	MATCHLINE

Nimbus Engineers
3785 Baker Ln.
Reno NV. 89509
(702)688-6630

SCALE: 1"=400'
DATE: JUNE 1997
FILE: 317XHBT7.DWG
JOB NO. 317
CONTRACT: EMW94C4646
REVISIONS:

EXHIBIT 7
Duck Creek Hydraulic Work Map

SHEET NO. 7 OF 7

VEGAS VALLEY DRIVE CONSTRUCTION PLANS

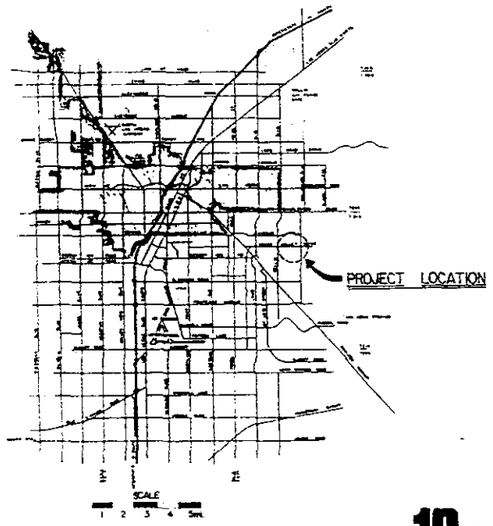
8/11/97

CLARK COUNTY

DEPARTMENT OF PUBLIC WORKS

INDEX OF SHEETS

SHEET 1	COVER SHEETS
SHEET 2	SITE PLAN (Existing Topo)
SHEET 3	CONSTRUCTION PLAN & PROFILE
SHEET 4	RCB DETAIL SHEET



Vicinity Map

1977

10-12' x 10' REINFORCED CONCRETE BOX FOR LAS VEGAS WASH FLOOD CONTROL PROJECT PHASE 1

County Administrator
GEORGE F. OGILVIE

County Commissioners
THALIA DONDERO, CHAIRMAN
DAVID CANTER, VICE-CHAIRMAN
SAM BOWLER ROBERT BROADBENT
MANUEL CORTEZ JACK PETITTI DICK RONZONE

Director of Public Works
GEORGE C. MONAHAN

AGENCY	PLANS REVIEWED BY	DATE OF APPROVAL
[illegible] TELEPHONE COMPANY		
[illegible] WATER DISTRICT		
[illegible] GAS COMPANY		
NEVADA POWER COMPANY		
C.C. SANITATION DISTRICT		
C.C. FIRE DEPARTMENT		
REG. STREETS & HWY COMM.		
NEVADA HIGHWAY DEPARTMENT		

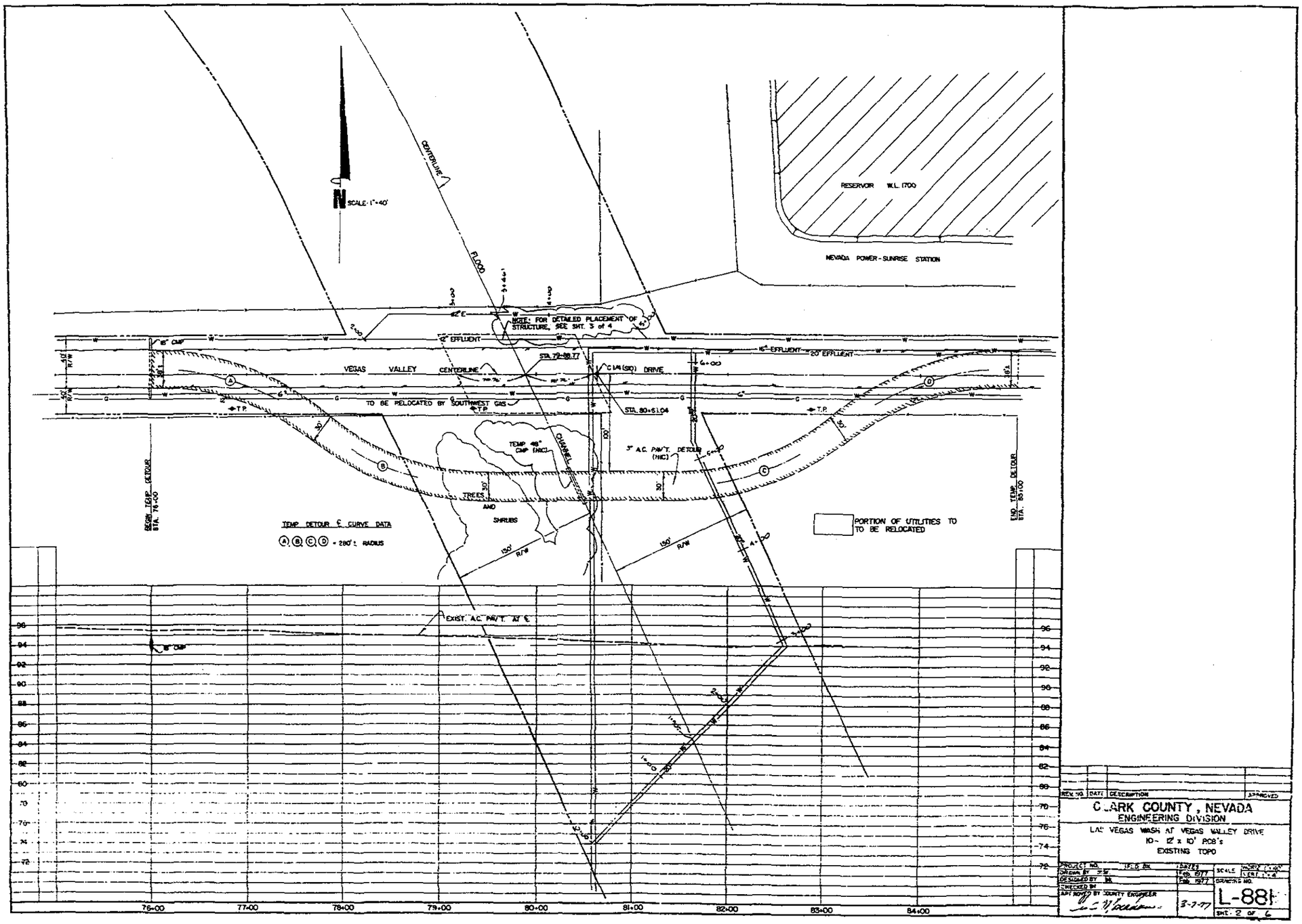
DEPARTMENT OF PUBLIC WORKS	PLANS REVIEWED BY	DATE OF APPROVAL
DIRECTOR OF PUBLIC WORKS		
CHIEF DEPUTY DIRECTOR OF PUBLIC WORKS		
DEPUTY DIRECTOR OF PLANNING & ENGINEERING		
ELECTRICAL DIVISION		
TRAFFIC DIVISION		
FLOOD CONTROL		

REVISIONS NO.	DESCRIPTION	BY	DATE	APPROVAL	DATE

CLARK COUNTY, NEVADA
ENGINEERING DIVISION

COVER SHEET

PROJECT NO.	FILE NO.	DATES	SCALE HORIZ.
DRAWN BY RDV		FEB. 1977	VERT.
DESIGNED BY MR		FEB. 1977	DRAWING NO.
CHECKED BY			L-881
APPROVED BY COUNTY ENGINEER		3-7-77	SHT. 1 OF 4

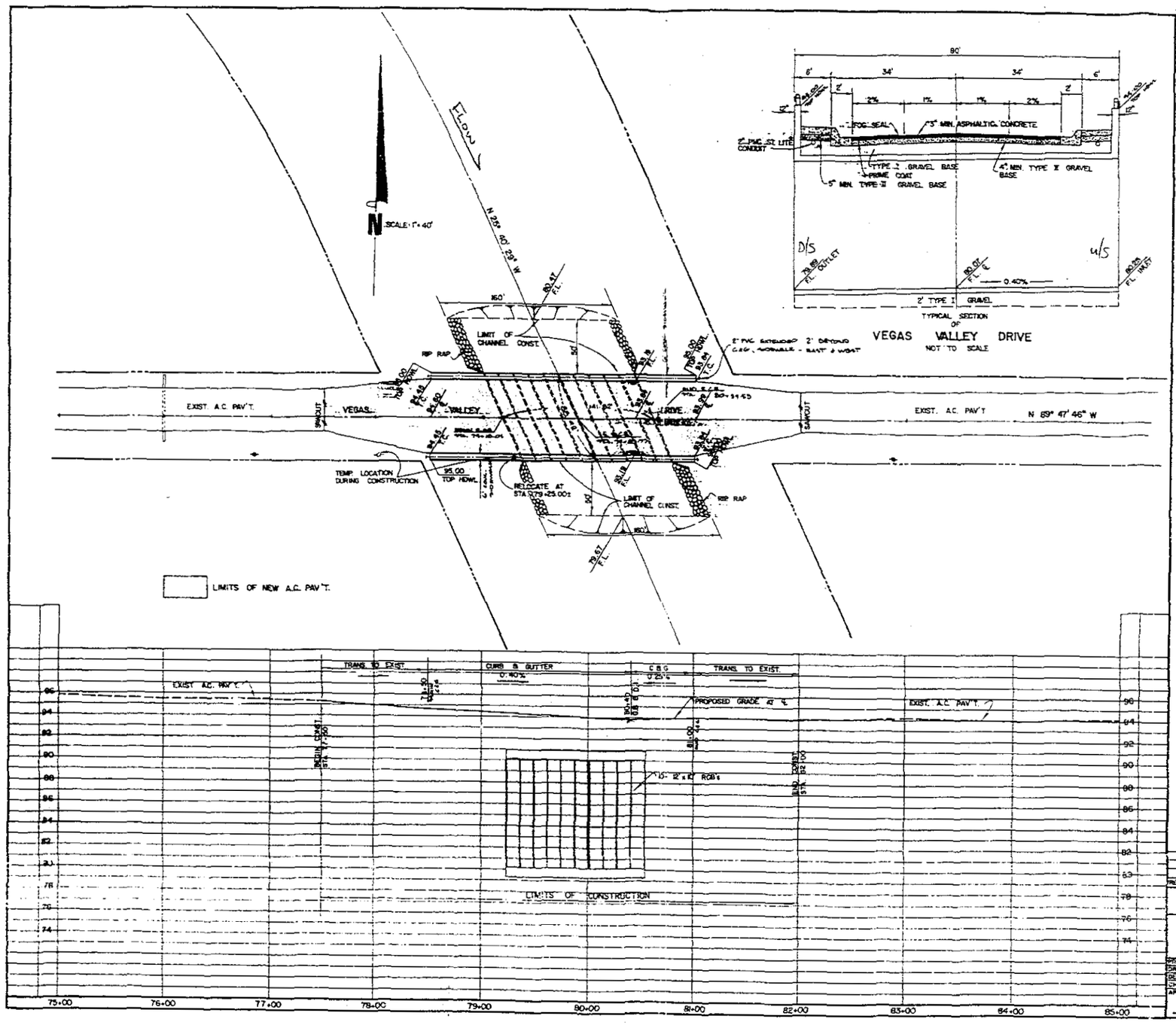


REV. NO.	DATE	DESCRIPTION	APPROVED

CLARK COUNTY, NEVADA
ENGINEERING DIVISION

LAS VEGAS WASH AT VEGAS VALLEY DRIVE
10 - 12' x 10' PCB's
EXISTING TOPO

PROJECT NO.	I.F.C.D. 204	DATES	SCALE HORIZ. 1"=40' VERT. 1"=4'
DRAWN BY	JFW	Feb. 1977	
DESIGNED BY	RR	Feb. 1977	DRAWING NO.
CHECKED BY			L-881
APPROVED BY COUNTY ENGINEER		3-7-77	SHT. 2 OF 6



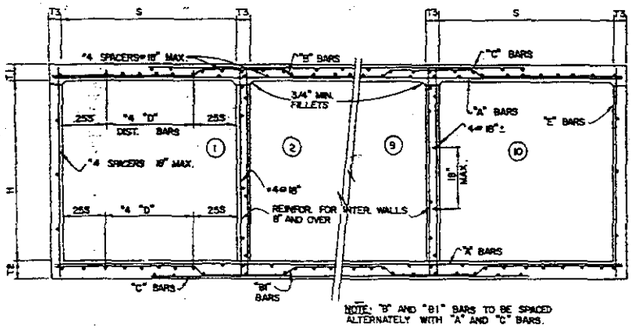
TYPICAL SECTION OF VEGAS VALLEY DRIVE
NOT TO SCALE

BENCH MARK: R.R. SPIKE IN NORTH FACE OF E.P. #2701 S.N.T., 35.50' RIGHT OF STATION 85+84
ELEV. 1692.93

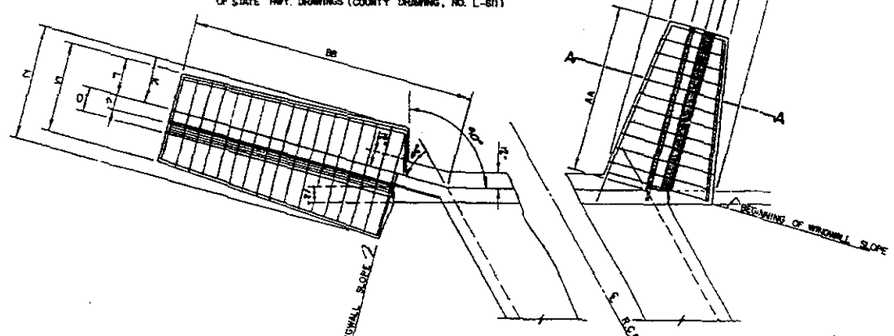
REV. NO.	DATE	DESCRIPTION	APPROVED

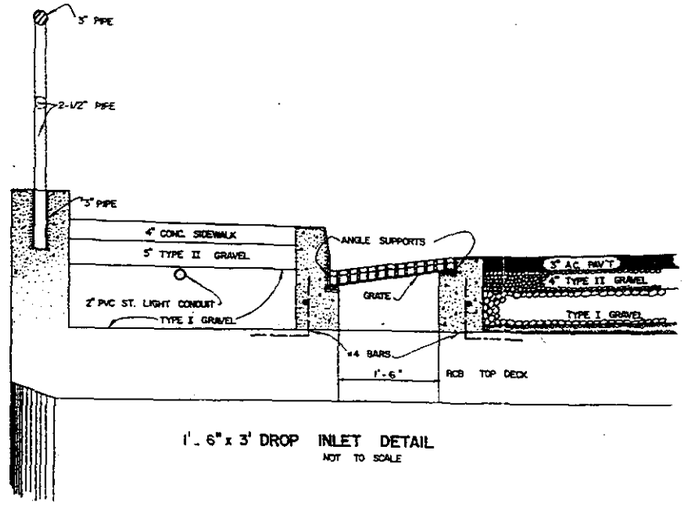
CLARK COUNTY, NEVADA
ENGINEERING DIVISION
LAS VEGAS WASH AT VEGAS VALLEY DRIVE
10- 12'x 10' RCB's
CONSTRUCTION PLAN AND PROFILE

PROJECT NO.	F.C.D. No.	DATES	
DRAWN BY	JDV	FEB. 1977	SCALE HORIZ. 1"=40' VERT. 1"=5'
DESIGNED BY	RK	FEB. 1977	DRAWING NO.
CHECKED BY			L-881
APPROVED BY COUNTY ENGINEER		3-7-77	SHT 5 OF 6

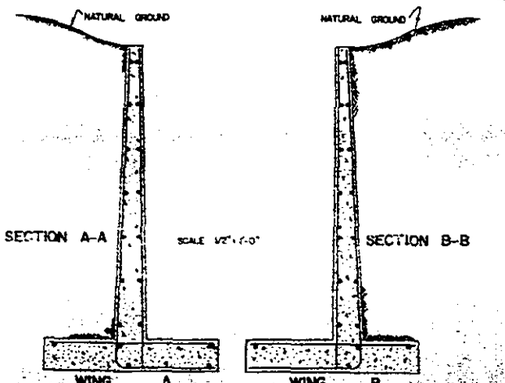


NOTE: FOR GENERAL NOTES SEE SHEET B-20.1.1 OF STATE HWY. DRAWINGS (COUNTY DRAWING, NO. L-811)





1'-6" x 3' DROP INLET DETAIL
NOT TO SCALE



HEADWALL & WINGWALL PLAN
NOT TO SCALE

RCB CULVERT SPECS

	SPAN	12'
	HEIGHT	10'
	MAX. FILL OVER TOP	2'
CONC.	TOP SLAB	T1 10-1/2"
	BOTTOM SLAB	T2 9-3/4"
	SIDEWALLS	T3 8"
STEEL REINFORCING	"A" SIZE, BAR NO.	7
	"A" SPACING	12"
	"A" LENGTH	38'-3"
	"B" SIZE, BAR NO.	7
	"B" SPACING	6"
	"B" LENGTH "C"	38'-3"
	"B1" LENGTH "B1"	39'-0"
	"C" SIZE, BAR NO.	6
	"C" SPACING	12"
	"C" LENGTH	23'-4"
	"D" DIST. TOP SLAB - TOT. NO.	36
	"D" DIST. BOT. SLAB - TOT. NO.	13
	"E" SIZE, BAR NO.	5
	"E" SPACING	12"
	"E" NUMBER	110
	CONCRETE - C.Y. PER LIN. FT.	3.36
	REINFORCING, LBS. PER LIN. FT.	548

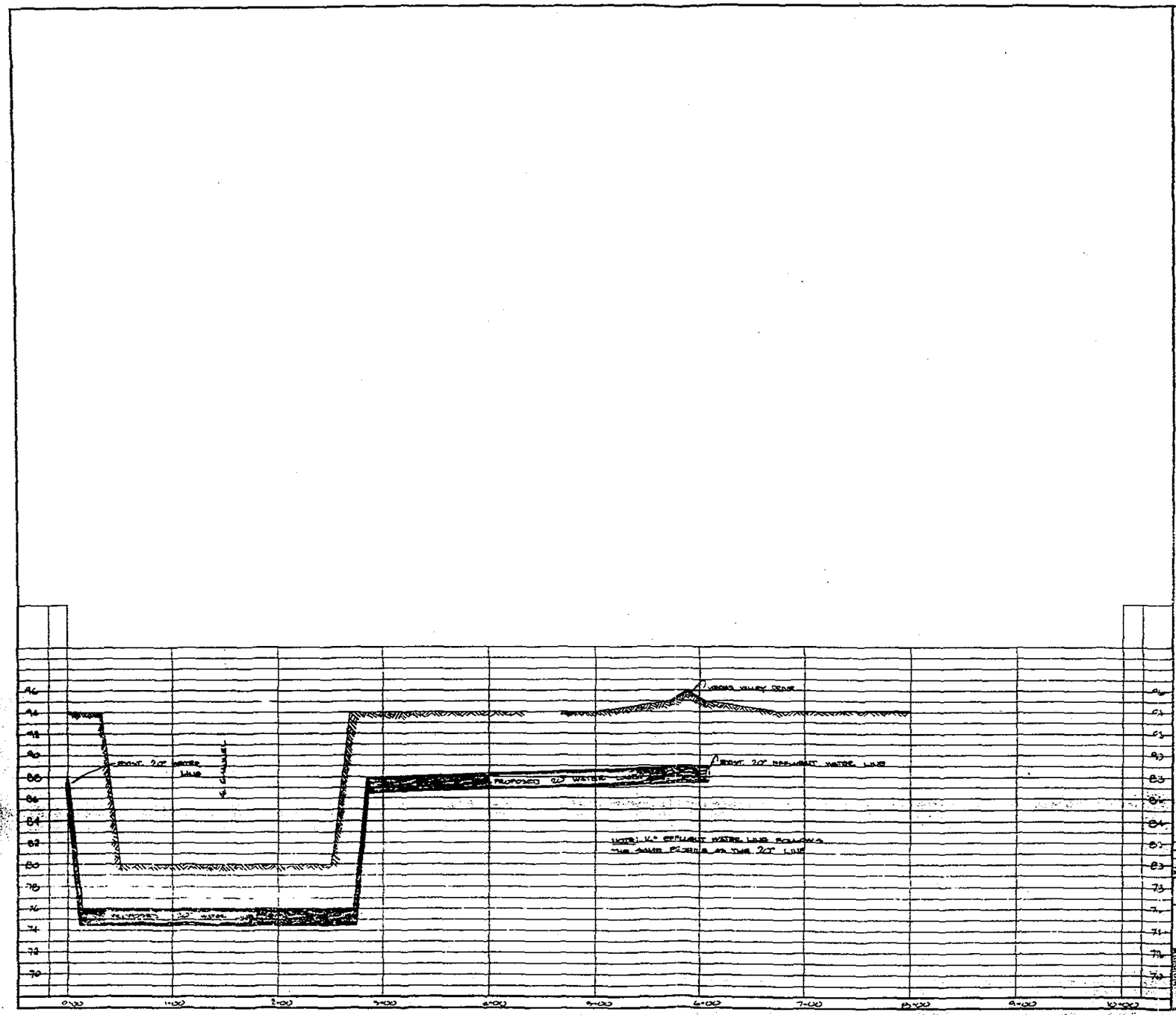
TYPE I HEADWALL DIMENSION & STEEL

AA	9'-9"
BB	16'-10"
CC	7'-8"
DD	11'-7"
E	9"
G	13"
H & K	2'-4"
F	1'-7"
G	3'-10"
J & U	16'-10"
L	2'-4"
M	6'-10"
"WING A" "A" BARS - SIZE	6
"WING A" "A" BARS - SPACING	9"
"WING A" "B" BARS - SIZE	6
"WING A" "B" BARS - SPACING	7½"
"WING B" "A" BARS - SIZE	7
"WING B" "C" BARS - SPACING	6½"
"WING B" "B" BARS - SIZE	6
"WING B" "B" BARS - SPACING	7½"

REV. NO.	DATE	DESCRIPTION	APPROVED

CLARK COUNTY, NEVADA
ENGINEERING DIVISION
LAS VEGAS WASH AT VEGAS VALLEY DRIVE
10- 12'x 10' RCB's
DETAIL SHEET

PROJECT NO.	T.I.S. NO.	DATES	SCALE / WORK NO.
DESIGNED BY		PER PLT	AS NOTED
DRAWN BY BK		PER PLT	DRAWING NO.
CHECKED BY			L-881
APPROVED BY COUNTY ENGINEER		5-7-97	SHT. 4 OF

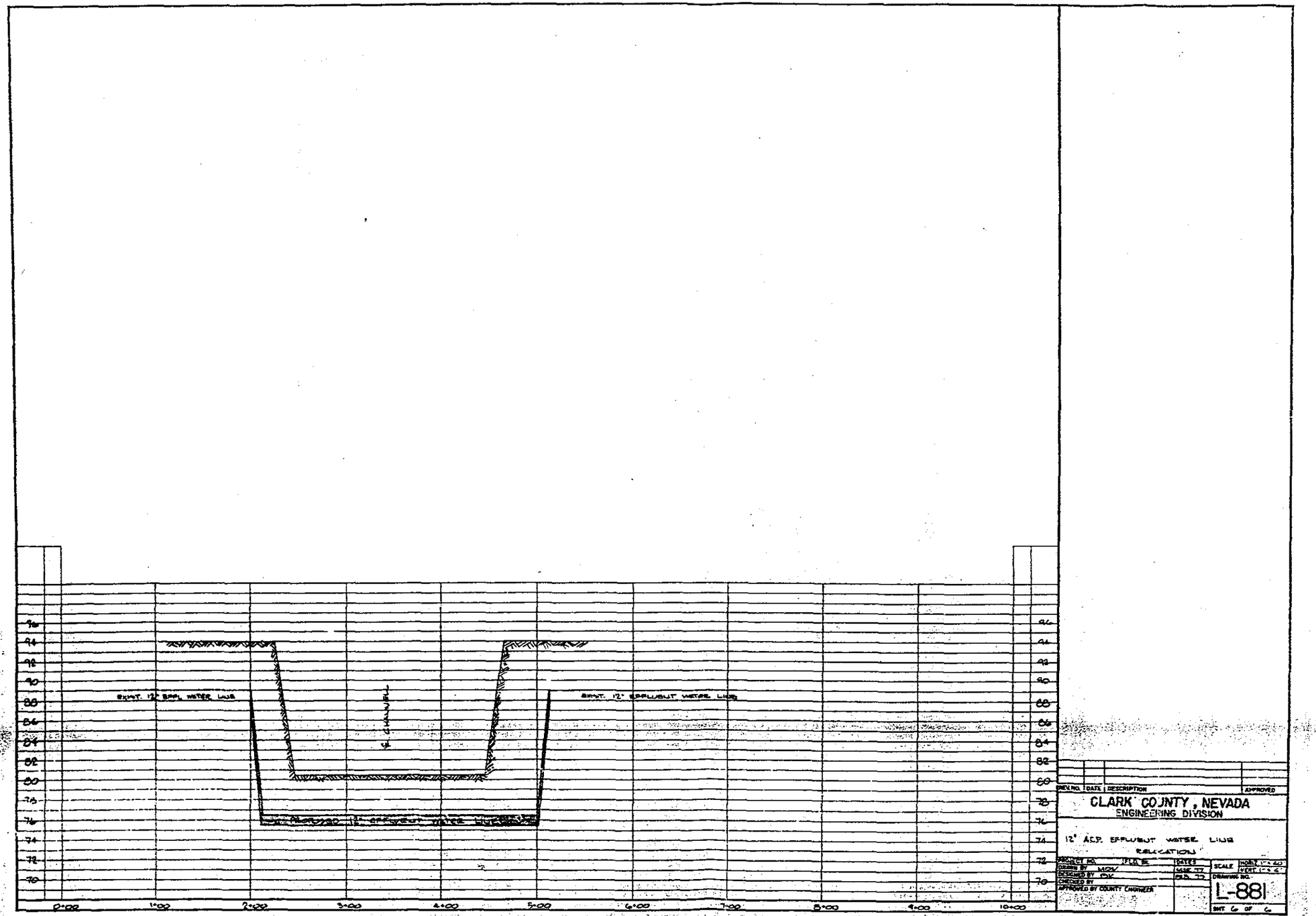


REV. NO.	DATE	DESCRIPTION	APPROVED

CLARK COUNTY, NEVADA
ENGINEERING DIVISION

16" & 20" A.C.P. EFFLUENT WATER LINE
RELOCATION

PROJECT NO. 1A-3.32	DATE	SCALE	HORIZ. 1"=40'
DRAWN BY RADW	JUNE 77		VERT. 1"=8'
DESIGNED BY JSL	DEC. 77	DRAWING NO.	
CHECKED BY		L-881	
APPROVED BY COUNTY ENGINEER		SHT. 4 OF 7	



REV. NO.	DATE	DESCRIPTION	APPROVED

CLARK COUNTY, NEVADA
ENGINEERING DIVISION

12" A.C.P. EFFLUENT WATER LINE
RELOCATION

PROJECT NO.	FILE NO.	DATES	SCALE HORIZ 1"=40' VERT 1"=4'
DRAWN BY MGV		MAR. '03	
DESIGNED BY DJK		FEB. '03	Drawing No. L-881
CHECKED BY			
APPROVED BY COUNTY ENGINEER			SHT 6 OF 6

FLAMINGO WASH FIS MAPPING

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
1015	1728.66	Brass and aluminum plate in top of curb, northeast corner of Nellis Blvd and Vegas Valley Dr., near the pc of Nellis Blvd.
1016	1728.73	Brass and aluminum plate in top of curb, northeast corner of Nellis Blvd and Sahara Ave. near the pc of Nellis Blvd.
1017	1727.30	Brass and aluminum plate in top of curb, east side of Nellis Blvd, at third street light pole, 230 FT. south of centerline of Flamingo Wash, at Desert Rose Golf Course.
1018	1777.46	Brass and aluminum plate in top of curb, northeast corner of Lamb Blvd and Karen Ave. near the pc of Lamb Blvd.

NOTES

MAP BASED ON 1"=400' TOPOGRAPHIC MAPPING PREPARED BY NEVADA AERIAL MAPPING FROM PHOTOGRAPHS TAKEN IN JANUARY 22, 1997.

VERTICAL CONTROL IS BASED ON THE NGVD 1929
HORIZONTAL CONTROL IS BASED ON NAD 1983,
UTILIZING CLARK COUNTY MONUMENTS.

PANEL AFFECTS FIRMS 32003C2190 D &
32003C2200 D DATED AUGUST 16, 1995.

FLOODING SOURCE: FLAMINGO WASH

CONTOUR INTERVAL 4 FEET

FILE: FL4-CSE.DWG CLARK COUNTY, NEVADA

NORTH

GRAPHIC SCALE

(IN FEET)
1 inch = 400 ft.

JOINS PANEL FL3

1016
1728.73
CCBM 6C12 4SWS

1018
1777.46
CCBM 7C12 8NWS

1015
1720.66
CCBM 6C12 9W4

SFHA TO BE REMOVED

SFHA TO REMAIN

SFHA TO REMAIN

SFHA TO BE REMOVED

CONFLUENCE OF LAS VEGAS WASH

LEGEND

- REVISED APPROXIMATE 100-YEAR FLOODPLAIN BOUNDARY
- EXISTING APPROXIMATE 100-YEAR FLOODPLAIN BOUNDARY
- APPROXIMATE 100-YEAR FLOODPLAIN BOUNDARY TIE-IN
- (30) CROSS-SECTION
- ELEVATION REFERENCE MARK

PANEL INDEX

FL1 FL2 FL3 FL4

REV	DATE	DESCRIPTION

RECOMMENDED 11902 JERRY E. PRUITT P.E. NO. DATE

C.C. WALLACE, INC.
Engineering/Architecture
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89102

FLAMINGO WASH
FIS RE-STUDY
US 95 TO LAS VEGAS WASH
CROSS SECTION EXHIBIT

SHEET
FL4
OF 4 SHEETS

580.037
PLOTTED: November 11, 1997 - FL4-CSE.DWG

LINKS GOLF COURSE CONSTRUCTION PLANS

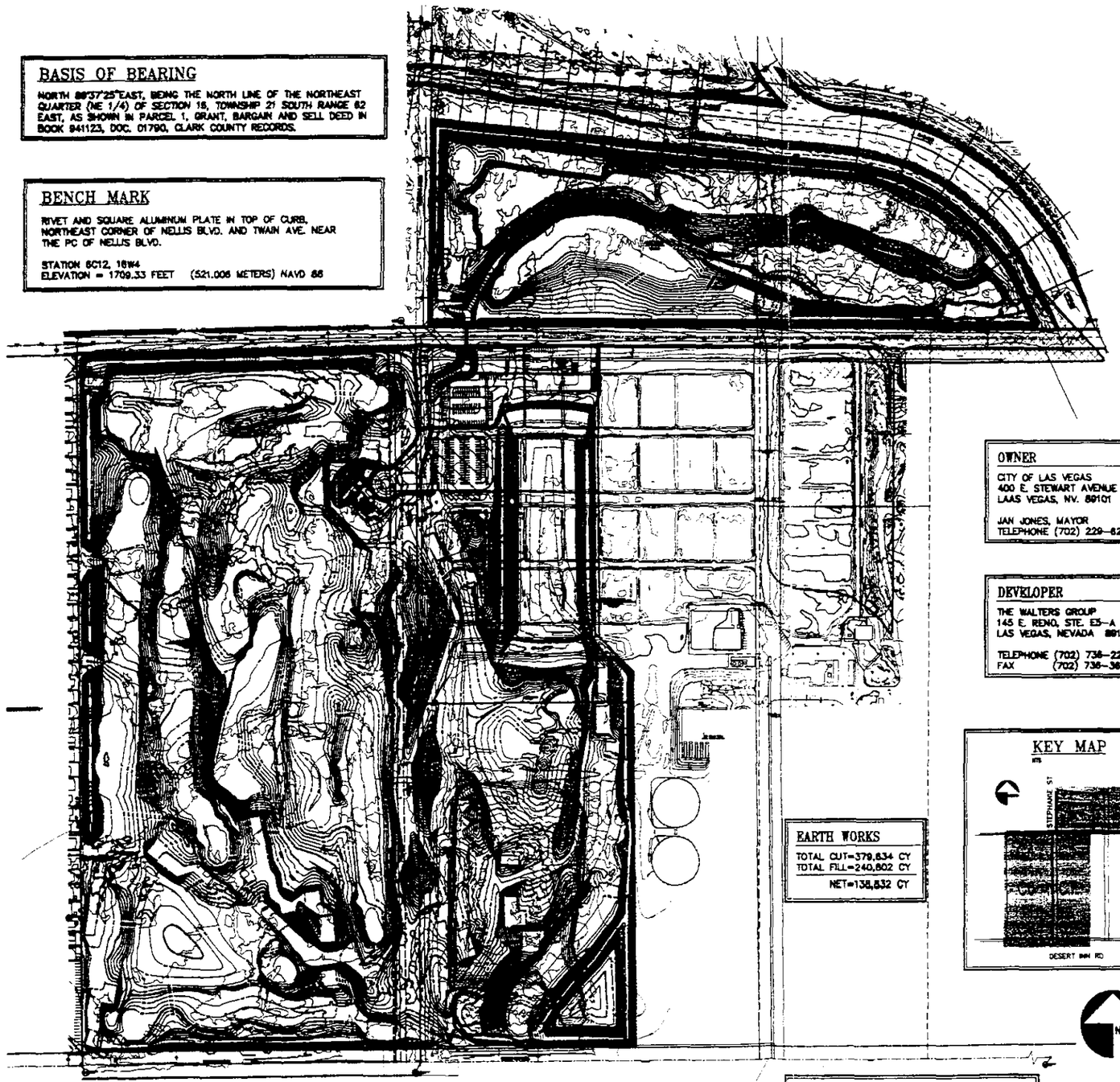
BASIS OF BEARING

NORTH 89°37'25"EAST, BEING THE NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 15, TOWNSHIP 21 SOUTH RANGE 62 EAST, AS SHOWN IN PARCEL 1, GRANT, BARGAIN AND SELL DEED IN BOOK 941123, DOC. 01790, CLARK COUNTY RECORDS.

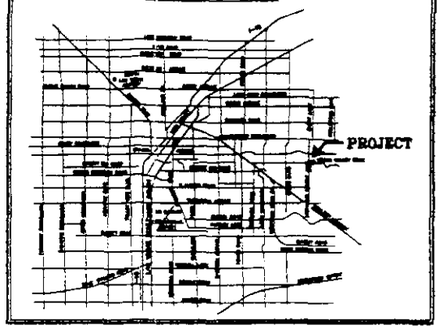
BENCH MARK

RIVET AND SQUARE ALUMINUM PLATE IN TOP OF CURB, NORTHEAST CORNER OF NELLIS BLVD. AND TWAIN AVE. NEAR THE PC OF NELLIS BLVD.

STATION 6C12, 16W4
ELEVATION = 1709.33 FEET (521.006 METERS) NAVD 88



VICINITY MAP



FIRM MAP ZONE "A" AREA

LEGEND:

EXISTING GRADE	(1700) / XX
FUTURE GRADE	1700 / XX
PROPOSED GRADE	1700 / XX
EXISTING CONTOUR	——(1700)——
FINISH CONTOUR	1700

OWNER

CITY OF LAS VEGAS
400 E. STEWART AVENUE
LAAS VEGAS, NV. 89101

JAN JONES, MAYOR
TELEPHONE (702) 229-6276

DEVELOPER

THE WALTERS GROUP
145 E. RENO, STE. E5-A
LAS VEGAS, NEVADA 89119

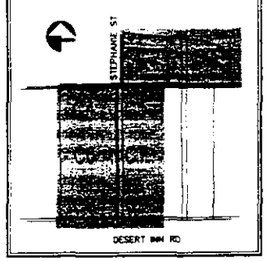
TELEPHONE (702) 736-2222
FAX (702) 736-3635

EARTH WORKS

TOTAL CUT=379,634 CY
TOTAL FILL=240,802 CY

NET=138,832 CY

KEY MAP



NOTE:
CONTRACTOR TO OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNER PRIOR TO GRADING OR MOBILIZING OUTSIDE OF SITE BOUNDARIES.

NORTH

GRAPHIC SCALE

(IN FEET)

CLARK COUNTY GENERAL NOTES

ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA," LATEST EDITION, THE "STANDARD DRAWINGS", DEPARTMENT OF PUBLIC WORKS, STANDARDS ISSUED BY THE CONTROLLING AGENCY, THE UNIFORM BUILDING CODE, AND ALL LOCAL COUNTY CODES AND ORDINANCES APPLICABLE.

ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS. ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CONTROLLING AGENCY.

ALL WORK DONE WITHIN THE PUBLIC RIGHT-OF-WAY AND OUTSIDE OF THE PROJECT BOUNDARIES REQUIRES A SEPARATE ENCROACHMENT PERMIT ISSUED BY THE CLARK COUNTY DEPARTMENT OF PUBLIC WORKS. TRENCH AND PAVEMENT REPLACEMENT SHALL BE AS INDICATED.

THE CONTRACTOR SHALL FOLLOW THE GUIDELINES AND REGULATIONS AS SET FORTH IN O.S.H.A. BEFORE THE COMMENCEMENT WORK THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY PRECAUTIONS.

THE CONTRACTOR SHALL SECURE ALL THE PERMITS AND INSPECTIONS REQUIRED TO COMPLETE THE WORK SPECIFIED ON THESE PLANS.

THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO COMMENCE TO CONSTRUCTION. PHONE "CALL BEFORE YOU DIG" 1-800-227-2600. EXISTING UTILITIES ARE LOCATED ON THE PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR THE PROTECTION OF EXISTING AND THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN ON THE PLANS OR NOT IN THE LOCATION SHOWN ON THE PLANS.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY METHODS NECESSARY TO PROTECT THE OWNER'S IMPROVEMENTS, WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE. ANY EXISTING IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED OR RECONSTRUCTED TO THE REPAIR AND RECONSTRUCTION WORK SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND APPROVED BY THE INSPECTOR.

THE CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AS WELL AS FOR SMOOTH AND SAFE FLOW OF THE PROJECT SITE. THE EXTENT OF THE TRANSITIONS SHALL BE AS SHOWN HEREON THESE PLANS OR AS DESIGNATED IN THE FIELD BY THE INSPECTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERTICAL ADJUSTMENT OF ALL EXISTING MANHOLES, CLEANOUTS, VALVE BOXES AND SIMILARITIES TO FINAL FINISH GRADE.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER APPLICABLE STANDARDS IN ACCORDANCE WITH N.R.S. SECTIONS 625.060-250.

ALL CONCRETE CONSTRUCTION SHALL USE TYPE "V" LOW ALKALI CEMENT.

THE EXACT LOCATION OF ALL SAWCUTS SHALL BE DETERMINED IN THE FIELD BY A CLARK COUNTY INSPECTOR.

CURB & GUTTER WITH A GRADE OF LESS THAN FOUR TENTHS OF ONE PERCENT SHALL BE WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION. ANY CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO CLARK COUNTY SHALL BE REMOVED AND REPLACED.

WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 224. EXACT LOCATION OF THE RAMPS SHALL BE DETERMINED IN THE FIELD BY A CLARK COUNTY INSPECTOR.

ALL DIMENSIONS SHOWN ARE TO BACK OF CURB OR TO FACE OF BUILDING UNLESS OTHERWISE NOTED. ALL STATIONING IS ALONG THE CENTERLINE. ALL CURB AND GUTTER GRADES ARE FIGURED ON CENTERLINE STATIONING UNLESS OTHERWISE SHOWN.

FINAL ASPHALTIC CONCRETE (AC) PAVEMENT SURFACES, INCLUDING OPEN GRADE, SHALL BE ONE-HALF INCH ABOVE THE LIP OF THE GUTTER.

PRIVATE STREETS AND/OR DRIVEWAYS REFLECTED ON THESE PLANS ARE TO BE INSPECTED BY A CLARK COUNTY INSPECTOR.

NOTICE !

CALL BEFORE YOU Dig
1-800-227-2600

THE WALTERS GROUP
LINKS GOLF COURSE
OVERALL GRADING PLAN

SECTION TOWNSHIP RANGE

CELLA BARR ASSOCIATES
Engineering Planning Surveying Landscape Architecture Marketing
1771 E. Flamingo Road #103-A Las Vegas, Nevada 89119
(702) 893-7778 Offices in Arizona, California and Nevada

SEAL

DESIGNED BY: VP
DRAWN BY: JW
CHECKED BY: VP
JOB NO.: 82000.00
ISSUE DATE: 03/23/98

SHEET NUMBER
1 OF 11

RECEIVED
MAR - 6 1998
NOLTE and ASSOC

NOTE: 90-...

KEY MAP

NOTE:
CONTRACTOR TO OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNER PRIOR TO GRADING OR MOBILIZING OUTSIDE OF SITE BOUNDARIES.

GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.

NORTH

NOTICE !
EXISTING UTILITIES ARE LOCATED IN THE PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE INFORMATION SHOWN IS NOT WARRANTED TO BE EXACT OR COMPLETE. IT IS NOT CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES BEFORE STARTING ANY CONSTRUCTION AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY THE LOCATION OF ALL UTILITIES WITH THE UTILITY COMPANIES.

CALL BEFORE YOU DIG
1-800-227-3600

DESIGNED BY:	SF
DRAWN BY:	JM
CHECKED BY:	SF
JOB NO.:	99001.00
ISSUE DATE:	05/23/00
SHEET NUMBER	C2
	2 OF 11

THE WALTERS GROUP
LINKS GOLF COURSE
GRADING PLAN

SECTION TOWNSHIP RANGE

CELLA BARR ASSOCIATES
Engineering Planning Surveying Landscape Architecture Hydrology
1771 E. Flamingo Road #103-B Las Vegas, Nevada 89119
(702) headquarters Offices in Arizona, California and Nevada

GUY E. RUDDY
NEVADA REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
05/24/00

NOTE:
CONTRACTOR TO OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNER PRIOR TO GRADING OR MOBILIZING OUTSIDE OF SITE BOUNDARIES.

NORTH

GRAPHIC SCALE

KEY MAP

NOTICE !

CALL BEFORE YOU DIG 1-800-227-2600

CLARK COUNTY
DEPARTMENT OF PUBLIC WORKS

MATCHLINE - SEE SHEET C2

S=0.40%

VEGAS VALLEY DRIVE

DESERT INN RD

THE WALTERS GROUP
LINKS GOLF COURSE
GRADING PLAN

SECTION TOWNSHIP RANGE

CELLA BARR ASSOCIATES
Engineering Planning Surveying Landscape Architecture Hydrology
1771 E. Flamingo Road #103-B Las Vegas, Nevada 89119
(702) 893-7777 Offices in Arizona, California and Nevada

SEAL: GUY F. RUDDY No. 10948 STATE OF NEVADA PROFESSIONAL ENGINEER 03/23/98

DESIGNED BY:	gfr
DRAWN BY:	JAH
CHECKED BY:	gfr
JOB NO.:	6298601.00
ISSUE DATE:	03/23/98

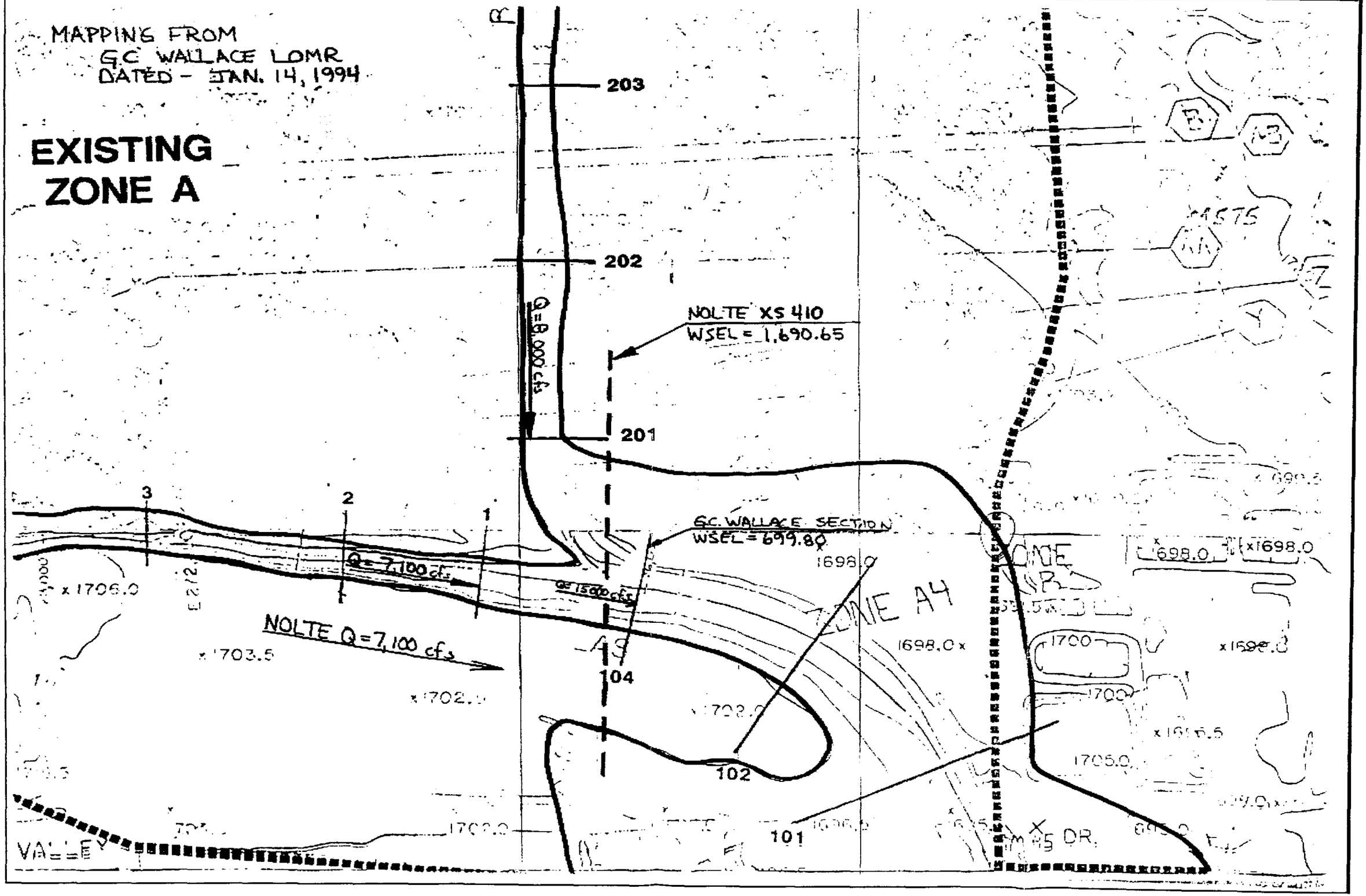
SHEET NUMBER
C3
3 OF 11

97 12 23 01

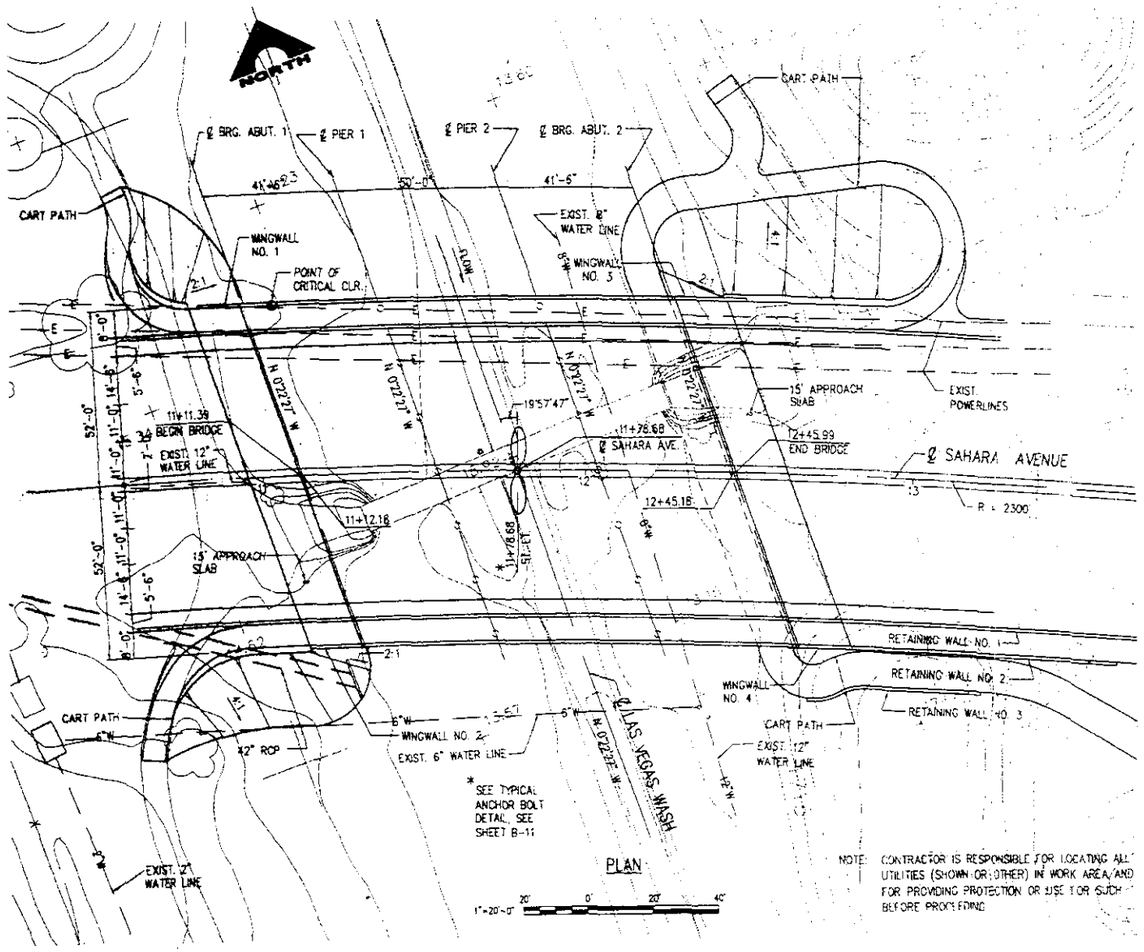
RANGE WASH MAPPING

MAPPING FROM
G.C WALLACE LOMR
DATED - JAN. 14, 1994

EXISTING ZONE A



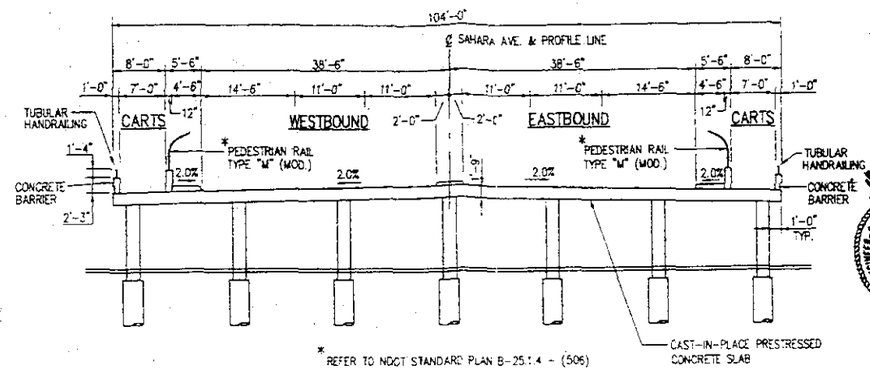
SAHARA AVE. BRIDGE PLANS



PLAN

1"=20'-0"

NOTE: CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES (SHOWN OR OTHER) IN WORK AREA AND FOR PROVIDING PROTECTION OR USE FOR SUCH BEFORE PROCEEDING

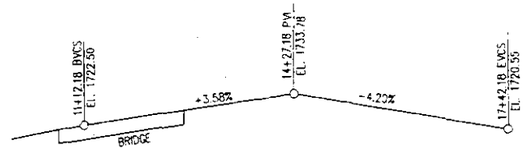


TYPICAL SECTION

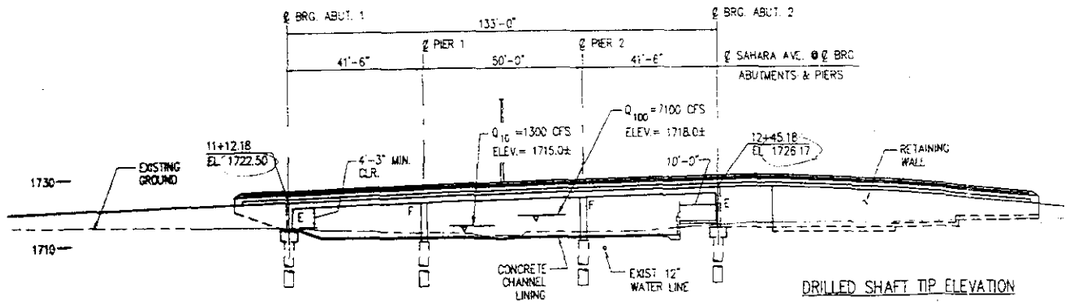
1"=10'-0"

CURVE DATA

PC = 18+34.73
PI = 7+25.43
Δ = 55°16'05"
R = 2300.00'
L = 2218.60'
T = 1204.15'



PROFILE LINE
℄ SAHARA AVE.



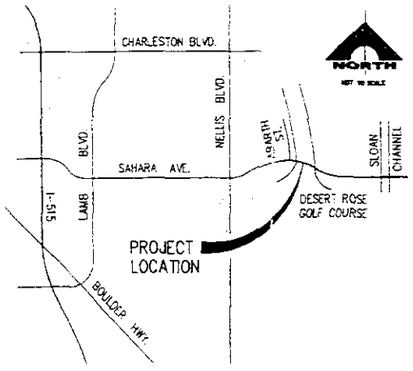
E - DENOTES EXPANSION JOINT
F - DENOTES FIXED PIER

ELEVATION
SHOWN ALONG ℄ SAHARA AVE.

1"=20'-0"

DRILLED SHAFT TIP ELEVATION

ABUT. 1	EL. 1671.00
PIER 1	EL. 1660.50
PIER 2	EL. 1660.50
ABUT. 2	EL. 1671.00



LOCATION MAP

G.C. WALLACE, INC.
Engineering/Architecture
1555 SOUTH RAINBOW BLVD./LAS VEGAS, NEVADA 89102

CLARK COUNTY DEPT OF PUBLIC WORKS
SAHARA AVENUE S.I.D. 64
LAS VEGAS WASH BRIDGE
PLAN AND ELEVATION

SHEET
B-1

JOB NO. 500.7216

5D0339

GENERAL NOTES

1. DESIGN SPECIFICATIONS: AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1992 INTERIMS THROUGH 1983.
2. CONTRACT SPECIFICATIONS: PROJECT MANUAL TITLED "SPECIAL IMPROVEMENT DISTRICT NO. 94"
3. LIVE LOAD: STANDARD HS20-44 PLUS IMPACT LOAD. IMPACT MODIFIED AS APPLICABLE PER "AASHTO GUIDE SPECIFICATIONS FOR HORIZONTALLY CURVED HIGHWAY BRIDGES".
4. SEISMIC LOAD: ACCELLERATION COEFFICIENT 0.15G. ATC-6 RESPONSE SPECTRA WITH TYPE II SOIL.
5. FUTURE OVERLAY: 3" AT 150 pcf ASSUMED.
6. CONCRETE: ALL CONCRETE SHALL BE CLASS A MODIFIED (MAJOR). ONLY TYPE V CEMENT SHALL BE USED FOR CONCRETE IN CONTACT WITH SOIL. SEE PRESTRESSING NOTES AND CONCRETE CLASSIFICATIONS DIAGRAM FOR ULTIMATE COMPRESSIVE CONCRETE STRENGTHS, PLACEMENT LOCATIONS, AND SEQUENCE.
7. REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615) GRADE 60. DIMENSIONS RELATING TO BAR SPACING ARE CENTER TO CENTER. BENDING DIMENSIONS ARE FROM CUT TO OUT OF THE BARS. BAR SIZES THREE(3) TO NINE(9) ARE INDICATED BY THE FIRST DIGIT IN THE MARK. TEN(10) OR LARGER BY THE FIRST TWO DIGITS. THE LENGTH OF THE BAR SIZES FOUR(4) AND FIVE(5), WHEN CONSIDERED AS BARS TO CONTROL TEMPERATURE, SHRINKAGE AND DISTRIBUTION STRESSES BY THE BRIDGE ENGINEER, MAY BE ADJUSTED BY THE CONTRACTOR UPON CONCURRENCE AND APPROVAL OF THE BRIDGE ENGINEER.
8. CAMBER: THE CAMBER SHALL BE AS SHOWN ON THE PLANS.
9. FINE SURFACE FINISH: ALL EXPOSED CONCRETE SURFACES SHALL BE FINE SURFACE FINISHED. ALL SURFACES IN CONTACT WITH THE GROUND SHALL BE FINE SURFACE FINISHED TO A POINT 1'-6" BELOW THE FINISHED GROUND LINE. THE TYPE OF FINE SURFACE FINISH SHALL BE "BONDED GROUT FINISH". THE COLOR OF THE FINISH SHALL BE NATURAL CONCRETE GREY.
10. WALL SURFACE FINISH: ALL EXPOSED WALL PANELS SHALL BE FINE SURFACE FINISHED.
11. FOUNDATIONS: FOUNDATIONS FOR ABUTMENTS AND PIERS ARE SUPPORTED BY DRILLED SHAFTS. MAXIMUM ALLOWABLE BEARING PRESSURES USED ARE 3500 PSF AT SPREAD FOOTINGS FOR RETAINING WALLS.
12. INCIDENTAL ITEMS: ALL ITEMS SHOWN OR NOTED ON THE PLANS WHICH ARE NOT SPECIFICALLY BID ITEMS ARE CONSIDERED INCIDENTAL ITEMS. THE COST OF FURNISHING AND INSTALLING ALL SUCH ITEMS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS, UNLESS NOTED OTHERWISE.
13. PLAN DIMENSIONS AND ELEVATIONS: ALL PLAN DIMENSIONS SHOWN ARE MEASURED HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED AND REFLECT THE ULTIMATE GEOMETRIC SHAPE AND LOCATION OF ALL ELEMENTS AT A MEAN TEMPERATURE OF 70°F.
14. CONSTRUCTION TYPE CODE: X080
15. EXCAVATION AND BACKFILL: QUANTITIES ARE CALCULATED USING NDOT STANDARD PLAN R-1.1.3(206,207)

PILE NOTES

ALL PILES SHALL BE 3.0' DIAMETER CAST-IN-DRILLED-HOLE PILES :

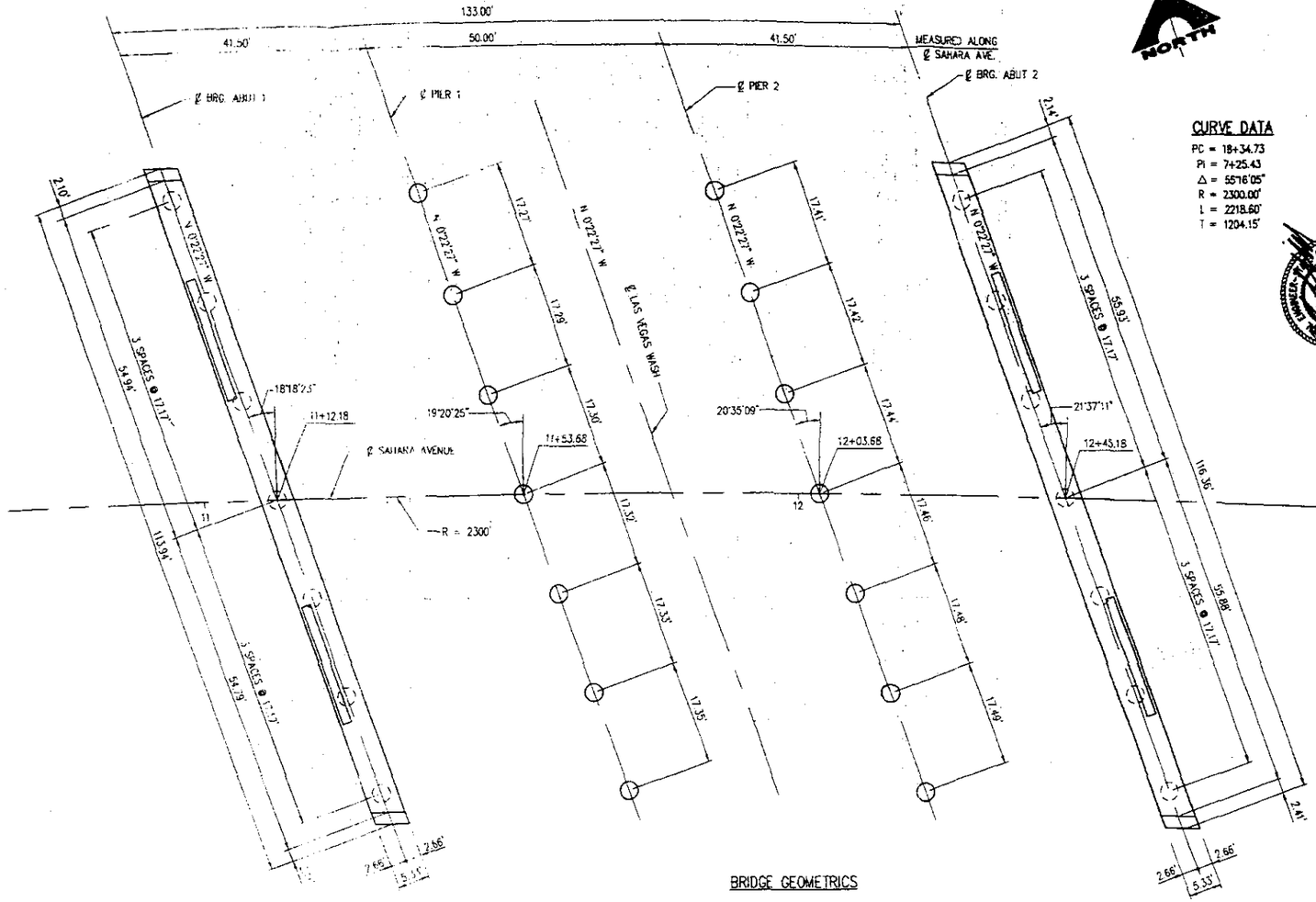
LOCATION	DESIGN TYPE	DESIGN CAPACITY (TONS)	TIP ELEVATION
ABUT. 1	COMBINATION FRICTION AND END BEARING	125	1671.00
PIER 1	COMBINATION FRICTION AND END BEARING	190	1660.50
PIER 2	COMBINATION FRICTION AND END BEARING	190	1660.50
ABUT. 2	COMBINATION FRICTION AND END BEARING	125	1671.00

BENCHMARK

FOUND ALUM. CAP - P.L.S. 4541 INTERSECTION OF THE EAST EDGE OF THE GOLF COURSE AND THE SOUTH LINE OF SECTION 4

BASIS OF BEARINGS

SOUTH 00°18'40" EAST BEING THE EAST LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 4, TOWNSHIP 21 SOUTH, RANGE 62 EAST, M.D.M., CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN FILE 36, PAGE 06 OF SURVEYS IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA



BRIDGE GEOMETRICS

CURVE DATA

PC = 11+34.73
PI = 7+25.43
Δ = 55°16'05"
R = 2300.00'
L = 2218.60'
T = 1204.15'

LIST OF DRAWINGS

SHEET NO.	SHEET TITLE	SHEET No.	SHEET TITLE
B-1	PLAN AND ELEVATION	B-13	APPROACH SLAB PLANS
B-2	GENERAL NOTES, QUANTITIES AND GEOMETRICS	B-14	CHANNEL LINING DETAILS
B-3	DECK CONTOURS	B-15	BARRIER RAIL DETAILS
B-4	ABUTMENT 1 PLAN AND ELEVATION	B-16	~~PEDESTRIAN RAIL TYPE "M"~~ DELETED
B-5	ABUTMENT 2 PLAN AND ELEVATION	B-17	BAR BEND SCHEDULE NO. 1
B-6	WINGWALL NO. 1 AND 2 DETAILS	B-18	BAR BEND SCHEDULE NO. 2
B-7	WINGWALL NO. 3 AND 4 DETAILS	B-19	BAR BEND SCHEDULE NO. 3
B-8	PIER 1 PLAN AND DETAILS	B-20	LOG OF BORINGS NO. 1
B-9	PIER 2 PLAN AND DETAILS	B-21	LOG OF BORINGS NO. 2
B-10	TYPICAL DECK SECTION	B-22	RETAINING WALL PLAN
B-11	DECK REINFORCING PLAN	B-23	RETAINING WALL ELEVATIONS & SECTIONS
B-12	PRESTRESSING AND CAMBER		

ITEM NO.	ITEM DESCRIPTION	UNIT	BRIDGE	RET. WALL	TOTAL
*	STRUCTURE EXCAVATION	CU. YD.	284	171	455
*	STRUCTURE BACKFILL	CU. YD.	569	602	1171
*	PRESTRESSING CAST IN PLACE CONCRETE	L.S.	1	---	1
*	CLASS A CONCRETE, MODIFIED (MAJOR)	CU. YD.	1513	207	1720
*	ELASTOMERIC CONCRETE	CU. FT.	20	---	20
*	FINE SURFACE FINISH	SQ. YD.	2122	265	2387
*	6" CONCRETE CHANNEL LINING	L.S.	1	---	1
*	REINFORCING STEEL	LBS.	137,947	16,932	154,879
*	PEDESTRIAN RAIL, TYPE "M" (MODIFIED)	L.F.	266	---	266
*	TUBULAR HAND RAILING	L.F.	337	84	421
*	FURNISH CAST IN DRILLED HOLE CONCRETE SHAFT (3 FT. O.D.)	L.F.	1260	---	1260

* NOTE: QUANTITIES ARE FOR INFORMATION PURPOSES ONLY AND SHALL BE CONSIDERED AS INCIDENTAL TO THE LUMP SUM PRICE QUOTED FOR "LAS VEGAS WASH BRIDGE"

JOB NO. 500.7215

REV | DATE | DESCRIPTION

RECOMMENDED | DATE
BRIAN L. SCHMIDT P.E. #9012

G.C. WALLACE, INC.
Engineering/Architecture
1555 SOUTH RAINBOW BLVD. LAS VEGAS, NEVADA 89102

CLARK COUNTY DEPT OF PUBLIC WORKS
SAHARA AVENUE S.I.D. 94
LAS VEGAS WASH BRIDGE
GENERAL NOTES, QUANTITIES AND GEOMETRICS

SHEET
B-2
SH 27 OF 54

CHARLESTON BLVD./NELLIS BLVD. BRIDGE PLANS

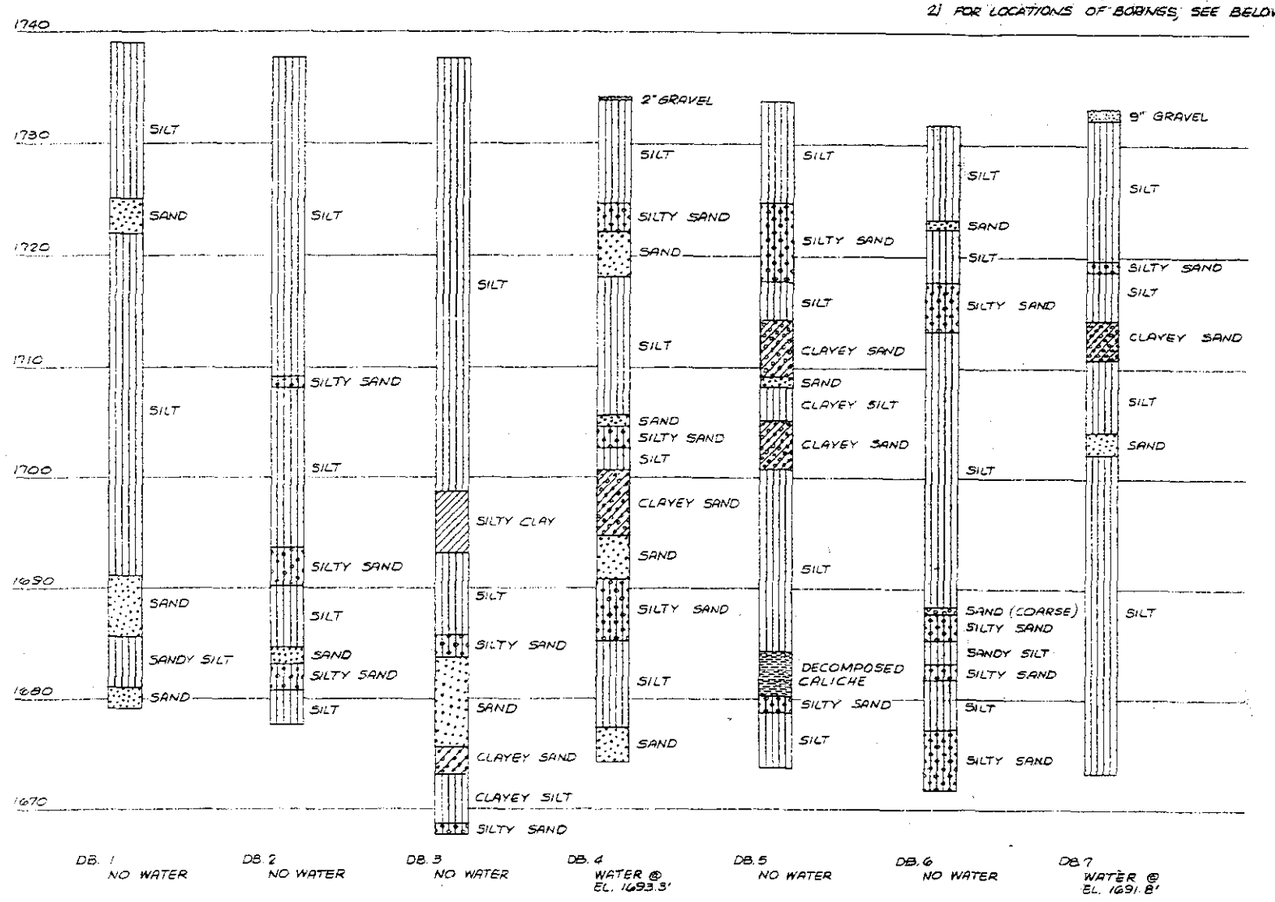
NOTES

1) THE SOILS BORING LOGS ARE IN ABBREVIATED FORM. THE FOUNDATION INVESTIGATION REPORT PREPARED BY CONVERSE, DAVIS AND ASSOCIATES DATED 11-4-70 & 2-10-71 MAY BE EXAMINED BY THE CONTRACTOR AT THE OFFICE OF WALLACE - MONTGOMERY CONSULTING ENGINEERS, LAS VEGAS, NEVADA, OR AT THE OFFICE OF THE CLARK COUNTY REGIONAL STREET AND HIGHWAY COMMISSION, LAS VEGAS, NEVADA.

2) FOR LOCATIONS OF BORINGS, SEE BELOW.

LOG OF BORINGS

VERTICAL SCALE : 1" = 6'-0"

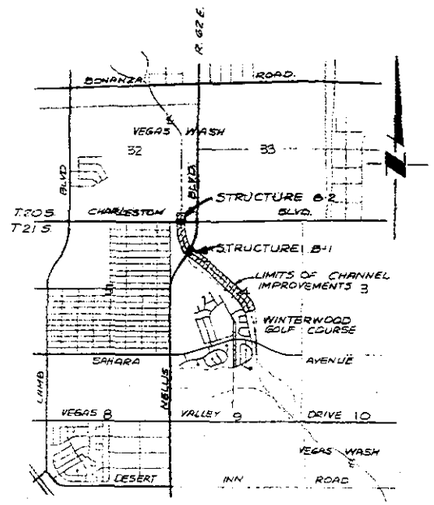


BENCH MARK

STA. 167+88 CHARLESTON BLVD., 49' N. OF ℄ SPIKE & TIN ON S. SIDE OF R/R @ 12630-T.
ELEV. = 1741.29 C.L.V. DATUM

GENERAL NOTES

1. ALL STRUCTURAL CONCRETE SHALL DEVELOP A COMPRESSIVE STRENGTH OF 3000 P.S.I. MIN. IN 28 DAYS.
2. REINFORCEMENT STEEL SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE BILLET STEEL, ASTM DESIGNATION A615, GRADE 40. COLUMN SPIRALS SHALL BE EITHER COLD DRAWN WIRE, ASTM DESIGNATION A82 WITH A MIN YIELD STRENGTH OF 70,000 P.S.I. OR HOT ROLLED BARS, ASTM DESIGNATION A615, GRADE 60.
3. FOR PROVISIONS REGARDING TEMPORARY DETOURS AROUND STRUCTURES, SEE SPECIFICATIONS.
4. DESIGN SPECIFICATIONS - AASHO "STANDARD SPECIFICATION FOR HIGHWAY BRIDGES," H20-S16-44 AND ALTERNATIVE LOADINGS.



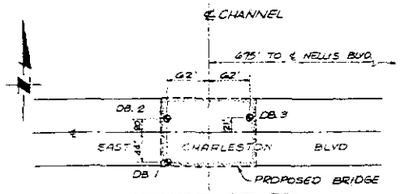
VICINITY MAP

NO SCALE

LIST OF DRAWINGS

1. LIST OF DRAWINGS, VICINITY MAP, AND LOG OF BORINGS
2. SITE AND FOUNDATION PLAN ; STRUCTURE B-1
3. SLAB AND COLUMN PLAN STRUCTURE B-1
4. SITE AND FOUNDATION PLAN ; STRUCTURE B-2
5. SLAB AND COLUMN PLAN ; STRUCTURE B-2
6. SLAB REINFORCEMENT PLAN ; STRUCTURES B-1 AND B-2
7. MISCELLANEOUS DETAILS ; STRUCTURES B-1 AND B-2
8. 51 INCH SEWER SUPPORT DETAILS - I ; STRUCTURE B-2
9. 51 INCH SEWER SUPPORT DETAILS - II ; STRUCTURE B-2
10. CHANNEL PLAN & PROFILE 3+00 TO 13+00
11. CHANNEL PLAN & PROFILE 13+00 TO 24+00
12. CHANNEL PLAN & PROFILE 24+00 TO 36+00
13. CHANNEL PLAN & PROFILE 36+00 TO 47+50
14. CHANNEL PLAN & PROFILE 47+50 TO 59+50
15. CHANNEL PLAN & PROFILE 59+50 TO 63+00
16. 24 INCH WATER MAIN RELOCATION ; PLAN & PROFILE
17. 24 INCH SEWER LINE & 12 INCH WATER LINE RELOCATION ; PLAN & PROFILE
18. 24 INCH SEWER LINE RELOCATION ; DETAILS
19. 51 INCH SEWER LINE RELOCATION ; PLAN & DETAILS
20. WATER & SPRINKLER SYSTEM RELOCATION 24+00 TO 47+50
21. WATER & SPRINKLER SYSTEM RELOCATION 47+50 TO 63+00 ; DETAILS
22. MISCELLANEOUS DETAILS
23. CHANNEL CROSS SECTION 3+00 TO 9+50
24. CHANNEL CROSS SECTION 10+00 TO 15+50
25. CHANNEL CROSS SECTION 16+00 TO 21+50
26. CHANNEL CROSS SECTION 22+00 TO 28+96
27. CHANNEL CROSS SECTION 29+50 TO 38+00
28. CHANNEL CROSS SECTION 38+50 TO 54+00
29. CHANNEL CROSS SECTION 55+00 TO 63+00

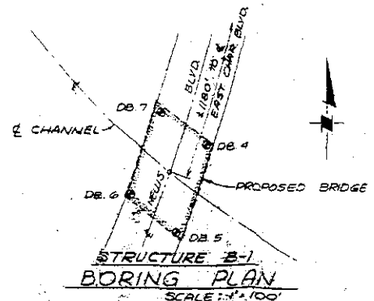
SHT. 1 OF 1 - CONCRETE GUTTER EXTENSION - 63+00 TO 93+83 (ITEM 1, CHANGE ORDER NO. 3.)
SHT. 1 OF 1 - SETTLEMENT BASIN EMBANKMENT STA. 28+65



STRUCTURE B-2

BORING PLAN

SCALE: 1" = 100'



STRUCTURE B-1

BORING PLAN

SCALE: 1" = 100'

WALLACE - MONTGOMERY, A JOINT VENTURE
MONTGOMERY ENGINEERS OF NEVADA
LAS VEGAS, NEVADA
735-7198

G. C. WALLACE, Consulting Engineer
735-5709

REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
E. CHARLESTON BLVD. - BRIDGES AND CHANNEL IMPROVEMENTS

LIST OF DRAWINGS, VICINITY MAP AND LOG OF BORINGS

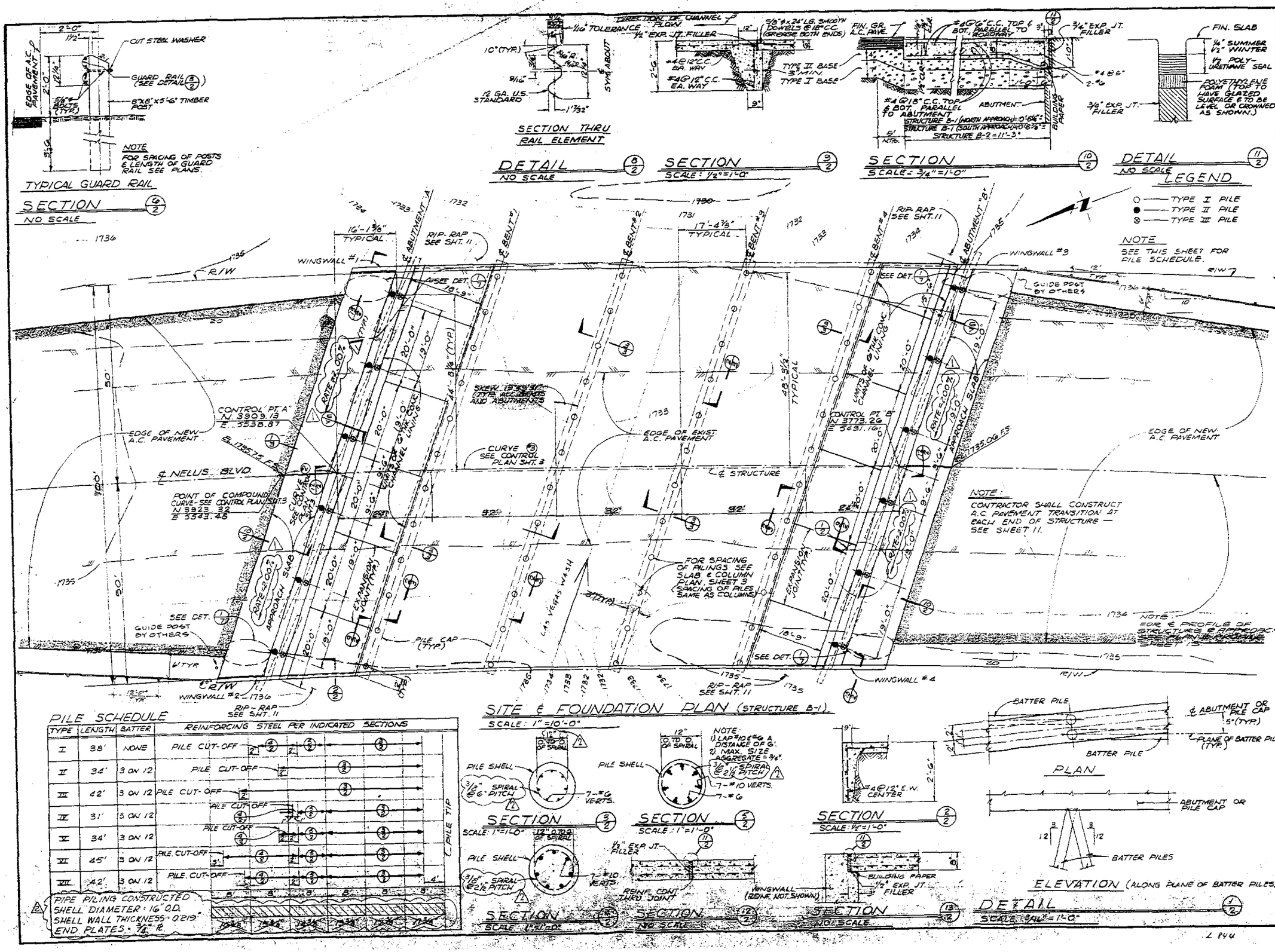
SHEET 1 OF 29 SHEETS

NO.	DATE	DESCRIPTION
1	9-5-74	AS-BUILT

RECOMMENDED G. C. Wallace DATE 10-15-74
R.E. NO. 1615
APPROVED Edward J. Ward DATE 10-17-74
MONTGOMERY ENGINEERS OF NEVADA R.E. NO. 2815

AS BUILT DRAWING

L-5444 50-332



WALLACE - MONTGOMERY, A JOINT VENTURE
G. C. WALLACE, Consulting Engineer — MONTGOMERY ENGINEERS OF NEVADA
735-5709 — LAS VEGAS, NEVADA

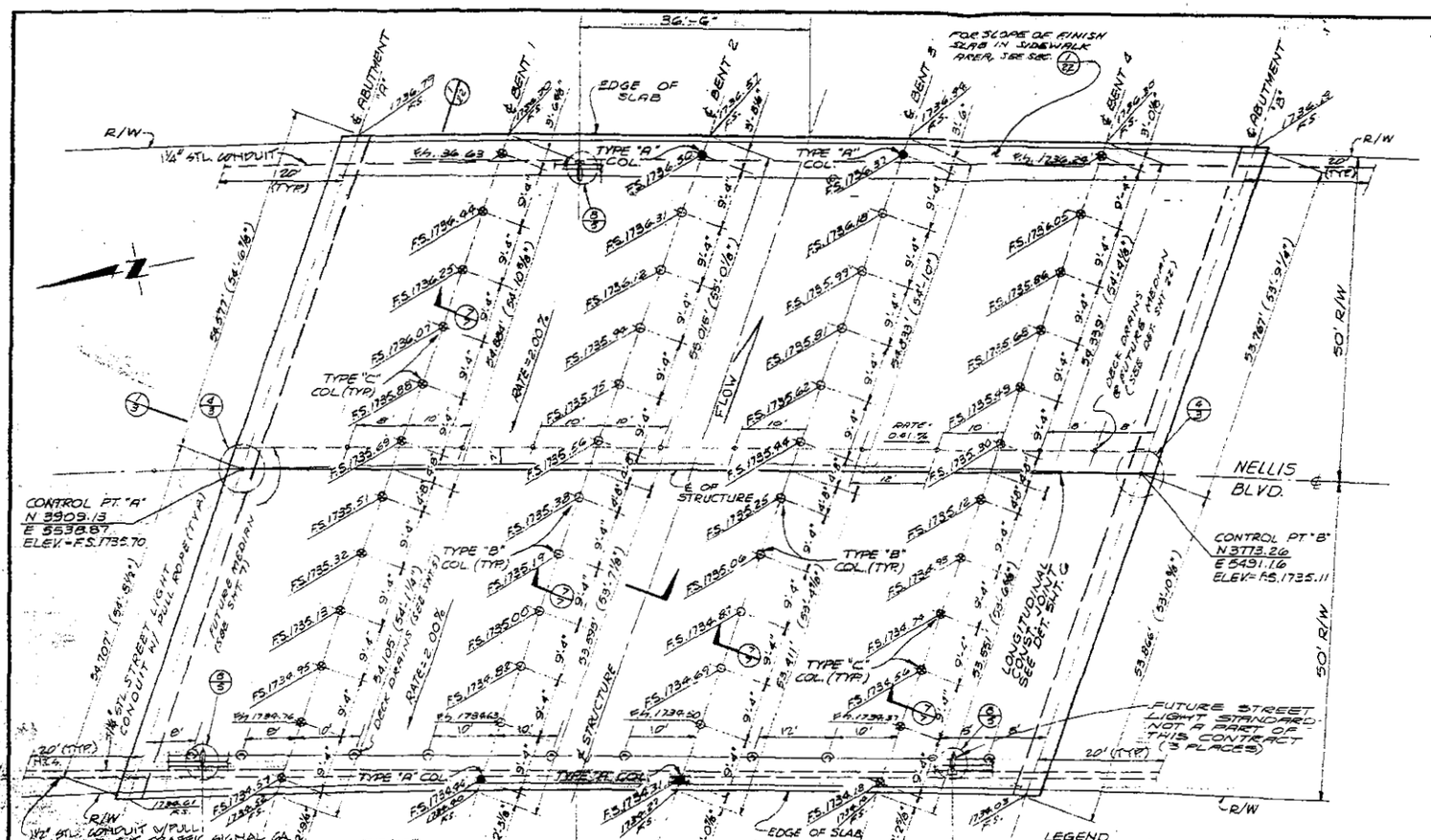
REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
E. CHARLESTON BLVD.-BRIDGES AND CHANNEL IMPROVEMENTS
SITE AND FOUNDATION PLAN (NELLIS BLVD.)
STRUCTURE B-1

SHEET 2

AS BUILT DRAWING

REV	DATE	DESCRIPTION
1	10/1/75	Rev. Notes & Details
2	9/5/75	A.B. Change Piling
		Typical Str. Reg. C.O. #1

RECOMMENDED: G.C. Wallace 10/15/71 DATE
APPROVED: Edward J. Schaefer 8/16/71 DATE

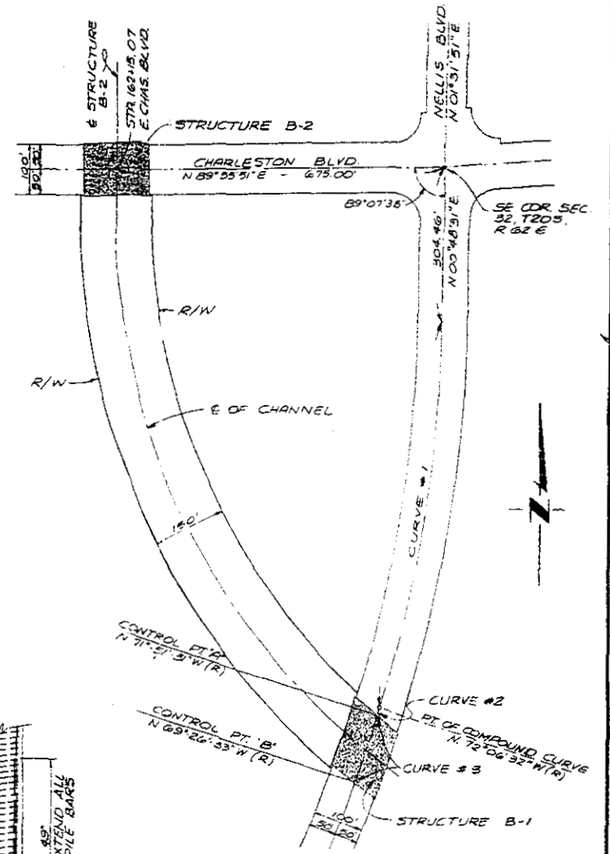


SLAB & COLUMN PLAN
STRUCTURE B-1
SCALE: 1"=10' (TYP.)

LEGEND
- ● - TYPE "A" COLUMN, SEE COL. SCHED. THIS SHT.
- ○ - TYPE "B" COLUMN, SEE COL. SCHED. THIS SHT.
- ⊗ - TYPE "C" COLUMN, SEE COL. SCHED. THIS SHT.
- F.S. - FINISH SLAB GRADE
- RATE = 0.61% RATE OF GRADE

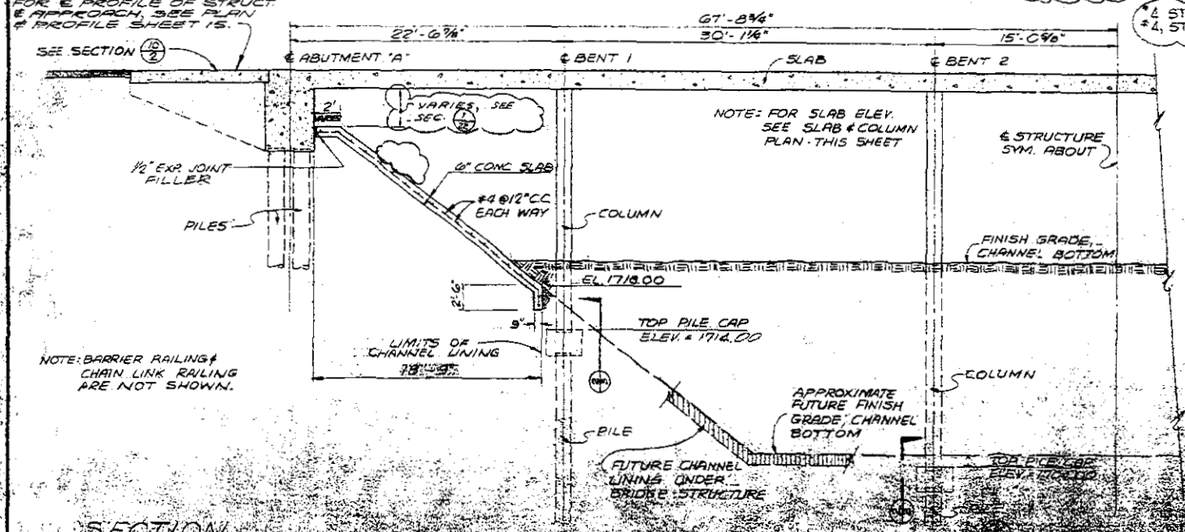
CURVE DATA

No.	Δ	R	T	L
1	17° 5' 18"	2636.91	396.15	786.41
2	0° 15' 01"	3415.20	7.46	14.92
3	2° 24' 58"	3415.20	72.02	144.02

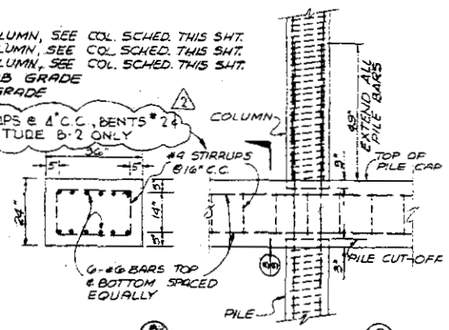


CONTROL PLAN
NO SCALE

NOTE:
FOR ℄ PROFILE OF STRUCT. ℄ APPROACH, SEE PLAN & PROFILE SHEET 15.

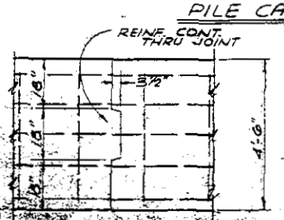


SECTION
SCALE: 3/16" = 1'-0"



SECTION 5/3 — SECTION 2/3

PILE CAP

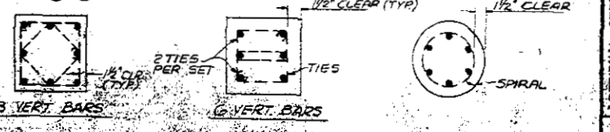


CONSTRUCTION JOINT IN ABUTMENT
SCALE 1"=1'-0"

COLUMN SCHEDULE

TYPE	SIZE	CORE	VERT. STEEL	SPIRAL	TIES	REMARKS
A	18' DIA.	15"	8-#10	½" @ 2½" PITCH	—	
B	18' DIA.	15"	7-#10	½" @ 2½" PITCH	—	
C	16' DIA.	13"	6-#6	½" @ 2" PITCH	—	
	20" x 20"	—	6-#6	—	#5 @ 12" C.C.	SEE NOTE 1
	20" x 20"	—	8-#8	—	#3 @ 16" C.C.	SEE NOTE 2
	20" x 20"	—	8-#10	—	#3 @ 16" C.C.	SEE NOTE 3

COL. SCHED. NOTES
1. REFER TO SECTIONS ⑤ & ⑥
2. REFER TO SECTIONS ⑤ & ⑥ PIERS #1 & #4
3. REFER TO SECTIONS ⑤ & ⑥ PIERS #2 & #3



TYPICAL COLUMN SECTIONS
NO SCALE

REV	DATE	DESCRIPTION
1	10/21/71	REVISED PILE CAP DETAILS
2	11/8/71	REVISED SECTION & PILE CAP DETAILS
3	12/29/71	ADD'D REV. PILE CAP DETAILS & DELETED NOTE TO CUT OF LINE PILES

RECOMMENDED: P.E. WALKER, DIRECTOR OF PUBLIC WORKS — DATE 10/6/71
APPROVED: K.E. WILLIAMS, CHAIRMAN, BOARD OF COUNTY COMMISSIONERS — DATE 10/6/71
ATTEST: CLERK OF BOARD — DATE 11/8/71

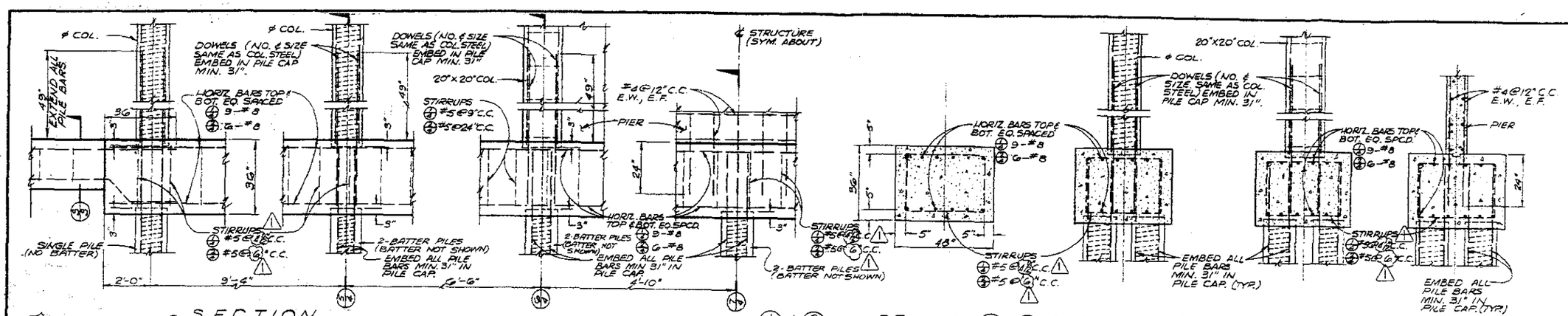
AS BUILT DRAWING

WALLACE - MONTGOMERY, A JOINT VENTURE
G. C. WALLACE, Consulting Engineer — MONTGOMERY ENGINEERS OF NEVADA
736-5709 — LAS VEGAS, NEVADA

REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
E. CHARLESTON BLVD. — BRIDGES AND CHANNEL IMPROVEMENTS

SLAB AND COLUMN PLAN
STRUCTURE B-1

SHEET 4A

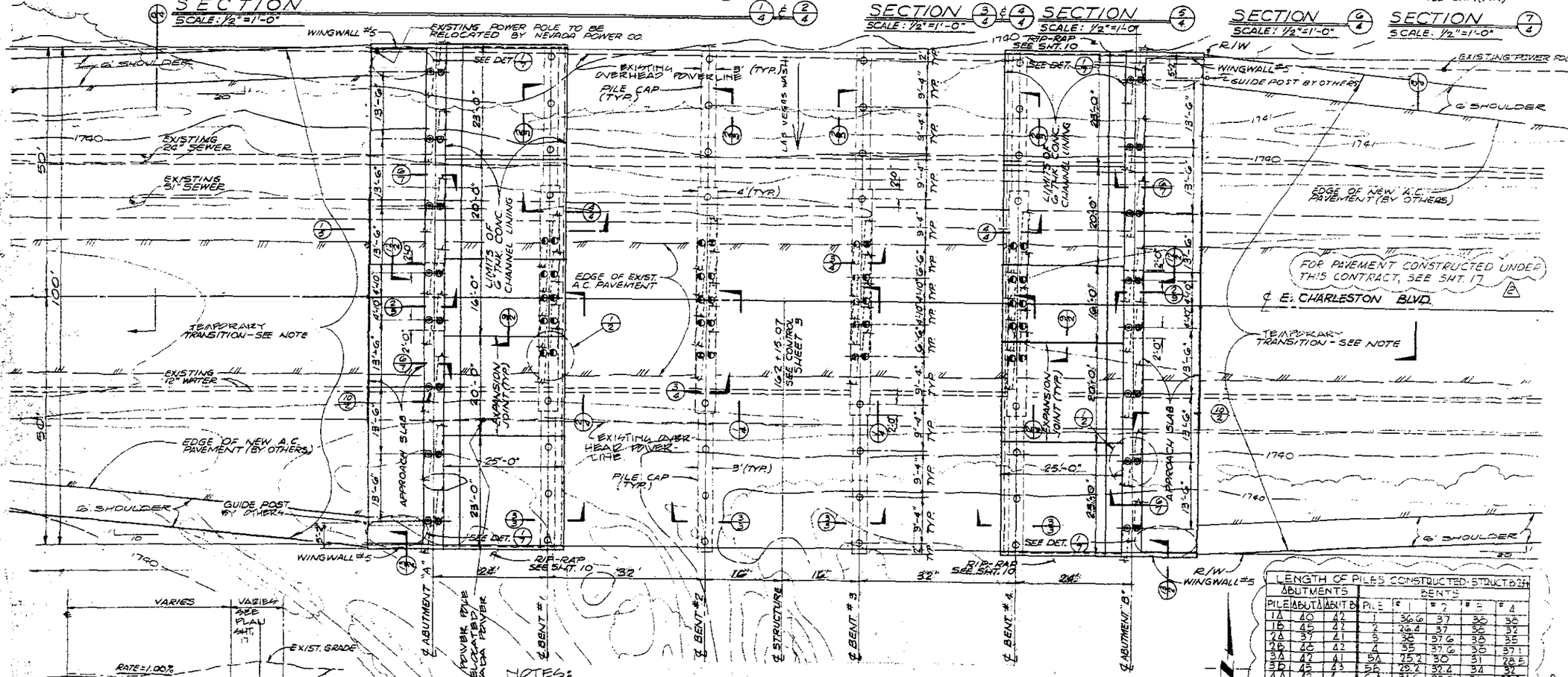


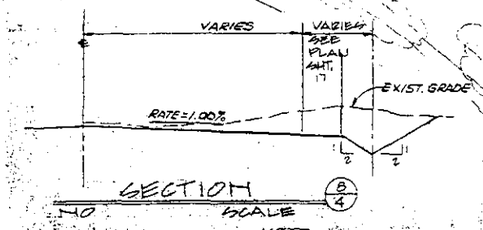
SECTION
SCALE: 1/2"=1'-0"

SECTION
SCALE: 1/2"=1'-0"

SECTION
SCALE: 1/2"=1'-0"

SECTION
SCALE: 1/2"=1'-0"





NOTE
CONTRACTOR TO PROVIDE TEMPORARY GRADED TRANSITION BETWEEN COMPLETED STRUCTURE & EXIST. PAVEMENT AND LIMITS OF TEMPORARY TRANSITION SEE SHT. 17

NOTES:
THE CONTRACTOR SHALL CONDUCT HIS PILE DRIVING AND OTHER OPERATIONS SO AS NOT TO DAMAGE EXISTING OVERHEAD OR UNDERGROUND UTILITIES LOCATED WITHIN OR ADJACENT TO THE AREA REQUIRED FOR CONSTRUCTION. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, MAKE ALL ARRANGEMENTS FOR THE TEMPORARY RELOCATION OF SAID OVERHEAD OR UNDERGROUND UTILITIES, IF RELOCATION IS REQUIRED BY HIS OPERATIONS.
THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE PROTECTION OF EXISTING UTILITIES.

TREES

SITE & FOUNDATION PLAN (STRUCTURE 8-2)
SCALE: 1" = 40'-0"

LEGEND
0 — TYPE I PILE
1 — TYPE II PILE
2 — TYPE II PILE
3 — TYPE II PILE
4 — TYPE III PILE

NOTE
SEE SHEET 2 FOR RATE SCHEDULE, SECTIONS & FOR PILE LENGTHS

LENGTH OF PILES CONSTRUCTED: STRUCT. 8-2

ABUTMENTS			BENTS				
PILE	ABUT A	ABUT B	PILE	# 1	# 2	# 3	# 4
1A	40	42	1	36.6	37	36	36
1B	45	47	2	26.4	37	35	34
2A	37	41	3	30	37.6	35	35
2B	26	42	4	35	37.6	35	37.1
3A	42	41	5A	25.2	30	31	28.5
3B	45	43	5B	28.2	32.4	34	32
4A	42	4	6A	31.6	27.6	31	27.5
4B	46	47	6B	29.6	32.7	31	29
5A	37.5	41	7A	25.5	30	31	27.5
5B	45	47	7B	23.5	30.4	32	28.6
6A	39.6	41	8A	25.5	30.3	31	27.3
6B	41.6	42	8B	24.5	30	31	26
7A	38.5	42	9A	31	29.8	35	27.5
7B	39	41.5	9B	25.2	30	31	27.5
8A	38.6	42	10	37	36.6	36	28
8B	40	45	11	38	36	36	36
			12	38.2	38	38	38
			13	38	37.3	38	38

"A" PILE IS ON EAST SIDE
"B" PILE IS ON WEST SIDE
PILE NUMBERS BEGIN @ SOUTH END OF STRUCT.

REV	DATE	DESCRIPTION
1	4-24-03	BUILT - DEVISE PILE CAP STIRRUPS DUE TO OUT OF LINE PILES
2	8-07-03	AS-BUILT

AS-BUILT DRAWING

RECOMMENDED: G.C. WALLACE — 4-15-03 DATE — R.E. NO. 11,180
APPROVED: Division of Highways — 4-15-03 DATE — R.E. NO. 11,180
MONTGOMERY ENGINEERS OF NEVADA

WALLACE - MONTGOMERY, A JOINT VENTURE
G. C. WALLACE, Consulting Engineer — MONTGOMERY ENGINEERS OF NEVADA
735-8709 — 735-7198
LAS VEGAS, NEVADA

REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
E. CHARLESTON BLVD.- BRIDGES AND CHANNEL IMPROVEMENTS.
SITE AND FOUNDATION PLAN
STRUCTURE 8-2 (CHARLESTON BLVD.)

SHEET 4

AS BUILT DRAWING

SLAB AND COLUMN PLAN
STRUCTURE B-2

REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
E. CHARLESTON BLVD. - BRIDGES AND CHANNEL IMPROVEMENTS

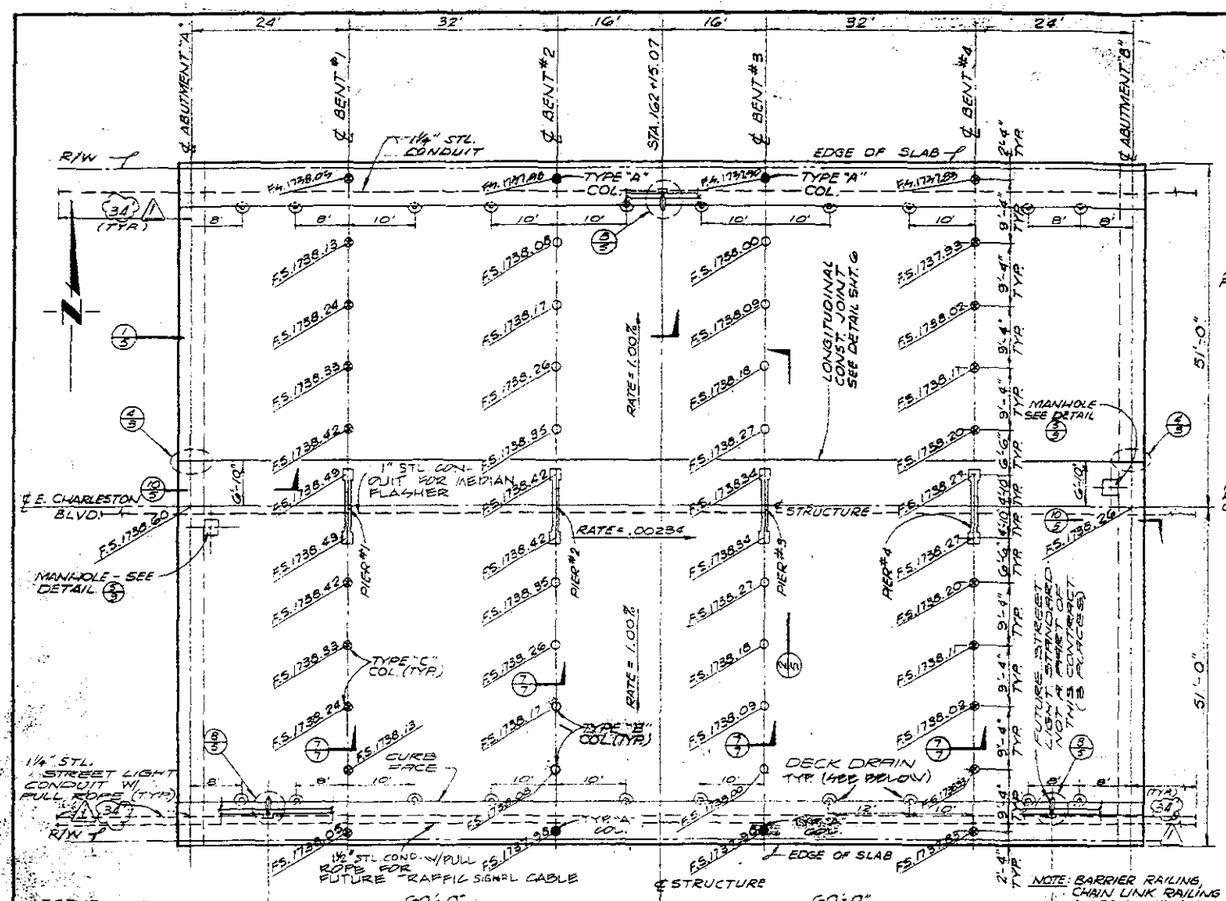
SHEET 51

WALLACE - MONTGOMERY, A JOINT VENTURE
G. C. WALLACE, Consulting Engineer MONTGOMERY ENGINEERS OF NEVADA
735-5709 LAS VEGAS, NEVADA

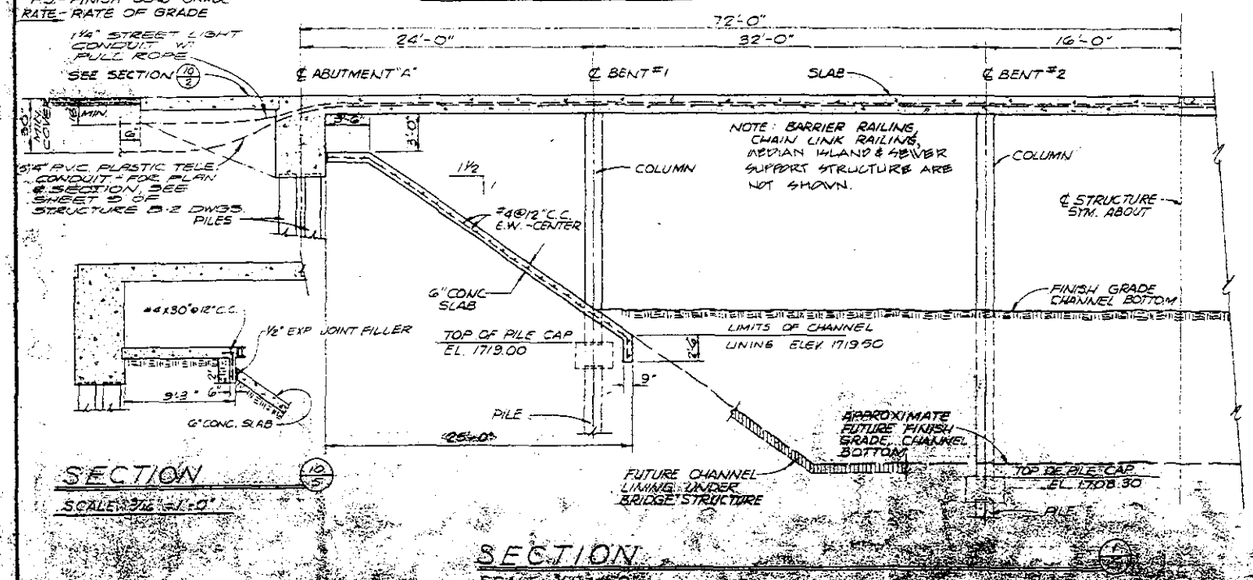
NO.	DATE	DESCRIPTION
1	10-5-72	AS BUILT

RECOMMENDED
R. E. WALLACE
R. E. NO. 6XYZ
DATE 10/5/72

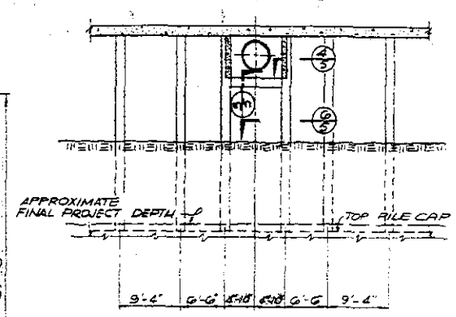
APPROVED
MONTGOMERY ENGINEERS OF NEVADA
R. E. NO. 7XYZ
DATE 12/5/72



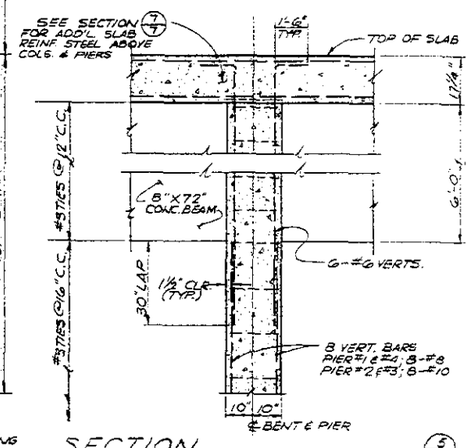
SLAB & COLUMN PLAN (STRUCTURE B-2)
SCALE: 1" = 10'-0"



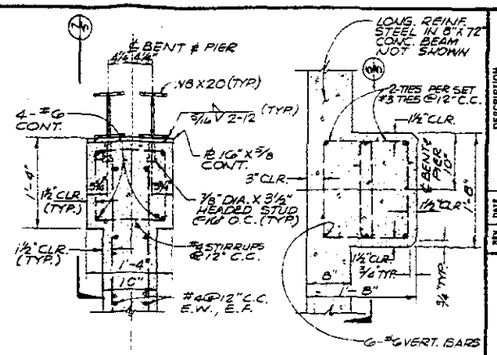
SECTION
SCALE: 3/16" = 1'-0" (10/5)



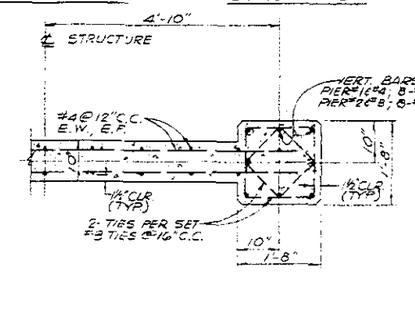
SECTION
SCALE: 1" = 10'-0" (2/5)



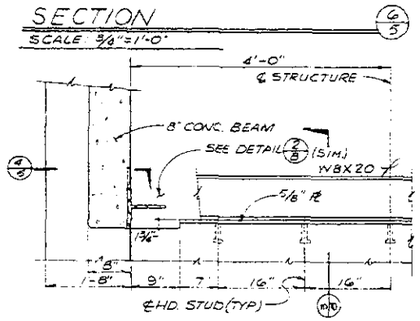
SECTION
SCALE: ½" = 1'-0" (4/5)



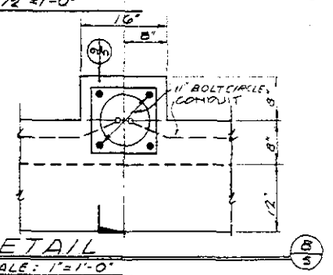
SECTION
SCALE: 3/16" = 1'-0" (3/5)



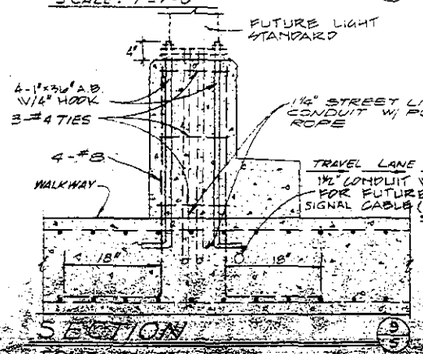
SECTION
SCALE: 1" = 1'-0" (4/5)



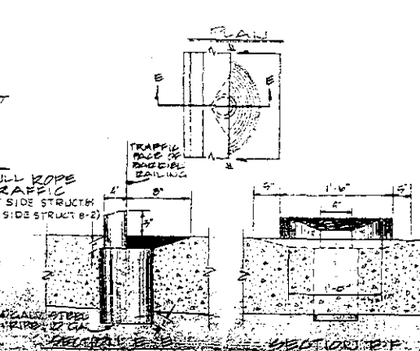
SECTION
SCALE: 1" = 1'-0" (7/5)

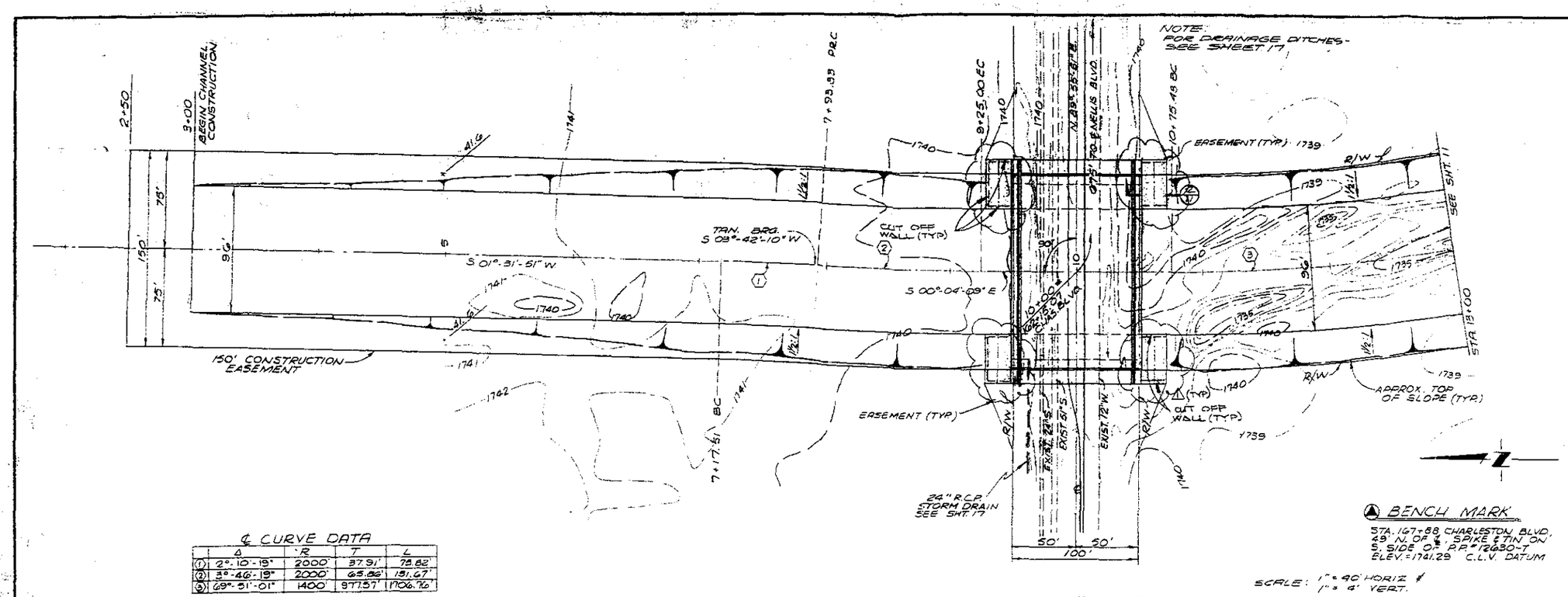


DETAIL
SCALE: 1" = 1'-0" (8/5)



SECTION
SCALE: 3/4" = 1'-0" (9/5)





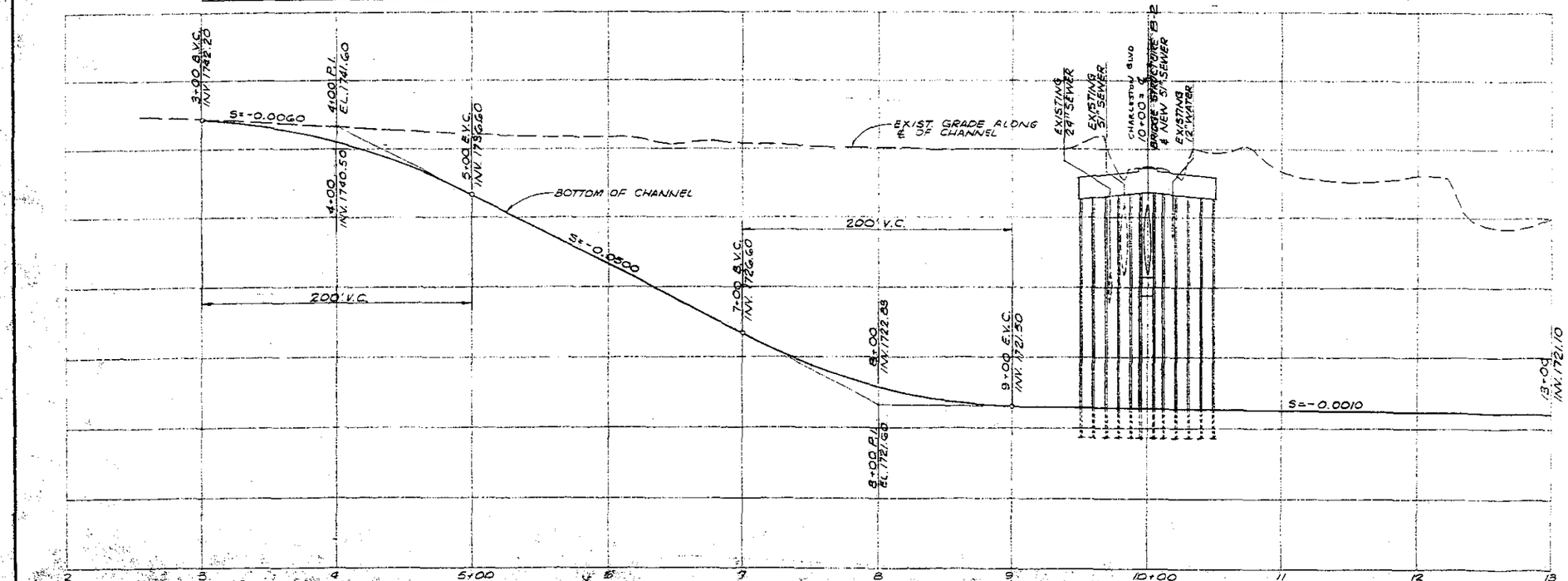
BENCH MARK

STA. 167+88 CHARLESTON BLVD.
49' N. OF ℄ SPIKE & TIN ON
S. SIDE OF P.P. #12830-7
ELEV. = 1741.29 C.L.V. DATUM

SCALE: 1" = 40' HORIZ.
1" = 4' VERT.

℄ CURVE DATA

	Δ	R	T	L
①	2°-10'-19"	2000'	37.91'	75.82'
②	3°-46'-19"	2000'	65.86'	131.67'
③	69°-51'-01"	1400'	977.57'	1706.76'



AS BUILT DRAWING

REV	DATE	DESCRIPTION
Δ	11-15-77	AS-BUILTS GENERATED BY P.P. R&D

RECORD DRAWING
G. C. WALLACE
MONTGOMERY ENGINEERS OF NEVADA
R.E. NO. 5672 DATE 10-15-77

APPROVED
CLARK COUNTY ENGINEER
R.E. NO. 7815 DATE 11-9-77

WALLACE - MONTGOMERY, A JOINT VENTURE
MONTGOMERY ENGINEERS OF NEVADA
LAS VEGAS, NEVADA 736-7198

G. C. WALLACE, Consulting Engineer
736-5709

REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
E. CHARLESTON BLVD. - BRIDGES AND CHANNEL IMPROVEMENTS

CHANNEL PLAN & PROFILE
3+00 TO 13+00

SHEET 10

STA 13+00

SEE SHT. 10

1738

1737

1736

1735

1732

75'

150'

20

16

1.5%

FOR TYP. PAVEMENT SECTION, SEE SHT. 15 (TYP.)

144 LF GUARD RAIL SEE DETAIL (6)

EASEMENT

BEGIN TRANSITION 21+00

END TRANSITION 22+00

SIDE SLOPE 2:1 VARIES

CUT OFF WALL (TYP.)

CENTER LINE

23+15.04

SEE SHT. 12

156 LF GUARD RAIL (TYP.) SEE DET. (6)

BEGIN TRANSITION 24+00

END TRANSITION 25+00

PRIMARY TRANSITION FROM EXIST. PAVEMENT TO CONC. CHANNEL BOTTOM (TYP. OF 2 PLACES)

EXIST. CONC. BRIDGE STRUCTURE

NELLIS BLVD.

50'

100'

APPROX. TOP OF SLOPE (TYP.)

DITCH CHECKS @ 5'-0" O.C. SEE (3) 11

#4 @ 12" C.C. E.W.

6"

2'-0"

FOR LOCATION WHERE CUT OFF WALL REQUIRED SEE PLAN SHT 10 & 11

SECTION (2) 11
NO SCALE

1-#4 CONT.
#4 @ 6' O.C.

SECTION (3) 11
NO SCALE

12"

WING WALL

CONC. CHANNEL SEE (2) 11 SIM.

SLOPE TO CENTER OF CONC. CHANNEL VARIES

SECTION (4) 11
NO SCALE

BENCH MARK

STA 167+88 CHARLESTON BLVD. 48' N. OF ℄ SAGE & TIN ON S. SIDE OF RTE 12950 FT. EL. 1741.29 C.L.V. DATUM

SCALE: 1" = 40' HORIZ. & 1" = 4' VERT.

℄ CURVE DATA

	Δ	R	T	L
①	69°-51'-01"	1400'	977.57'	1706.76'

EXIST. GRADE ALONG ℄ OF CHANNEL

BOTTOM OF CHANNEL

S=-0.0010

13+00 INV. 1732.10

24+00 INV. 1720.00

EXIST. 24" WATER

23+15.04 ℄ BRIDGE STRUCTURE (CHARLESTON BLVD.)

1740 / 1735 / 1730 / 1725 / 1720

13 14 15+00 16 17 18 19 20+00 21 22 23 24

REV	DATE	DESCRIPTION
1	10/15/71	Rev. sheet size to 22x36
2	11/17/71	Revised outfall for Project #1
3	12/8/71	Revised Number of Bridges
4	3-5-75	A.D. - MOVE QUADRANGLE FEB. ITEM G OF ADD #1

AS BUILT DRAWING

RECOMMENDED K.E. WALKER 10/15/71 K.E. WALKER DATE

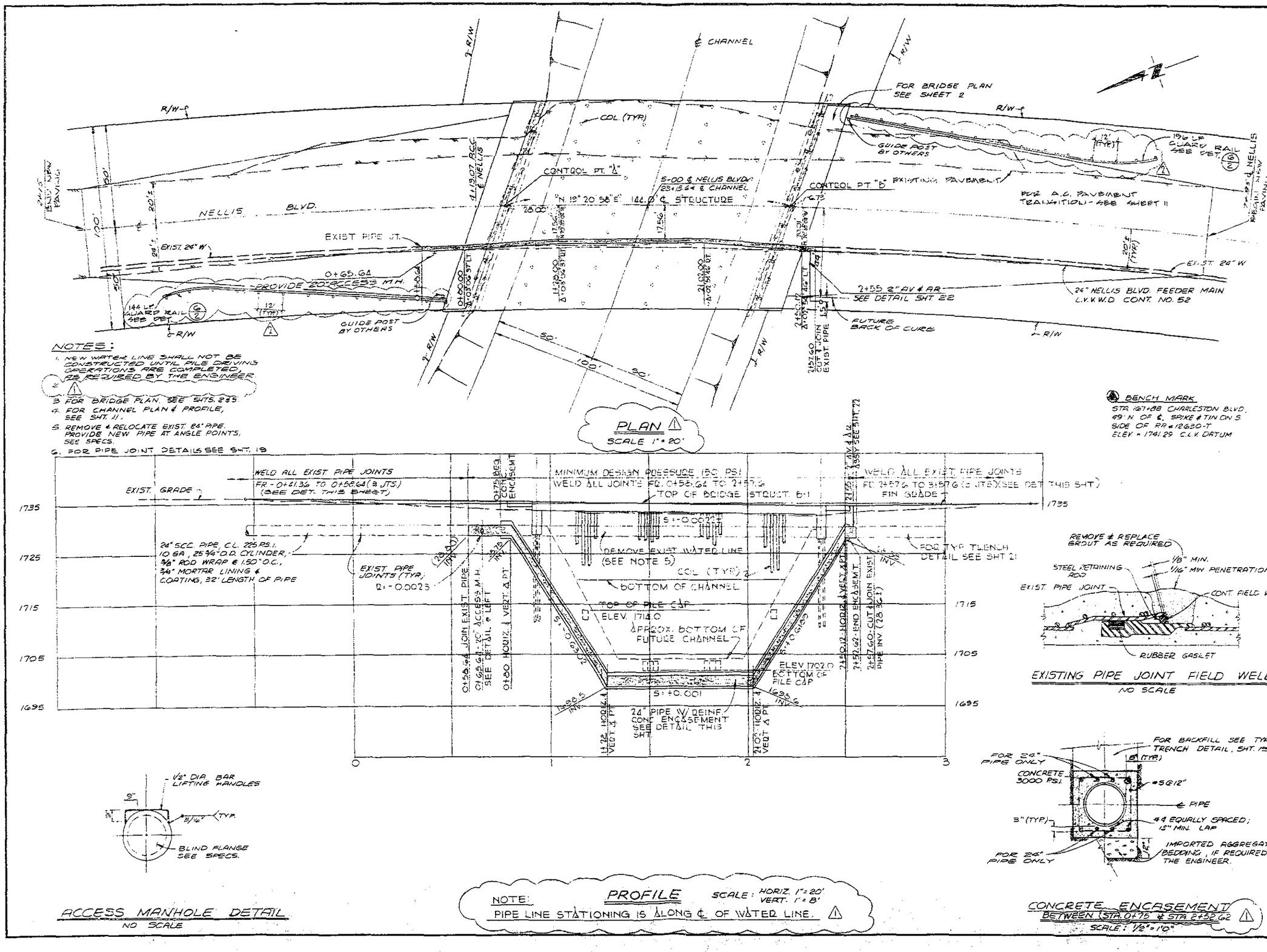
APPROVED Robert J. Uhart 10/15/71 MONTGOMERY ENGINEERS OF NEVADA K.E. WALKER DATE

MONTGOMERY, A JOINT VENTURE
Engineer MONTGOMERY ENGINEERS OF NEVADA
735-7198
LAS VEGAS, NEVADA

WALLACE - MONTGOMERY
G. C. WALLACE, Consulting Engineer
735-5799
LAS VEGAS, NEVADA

REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
CHARLESTON BLVD., BRIDGES AND CHANNEL IMPROVEMENTS

CHANNEL PLAN & PROFILE
13+00 TO 24+00



NOTES:

1. NEW WATER LINE SHALL NOT BE CONSTRUCTED UNTIL PILE DRIVING OPERATIONS ARE COMPLETED, AS REQUIRED BY THE ENGINEER. ⚠2
3. FOR BRIDGE PLAN, SEE SHTS. 2&3.
4. FOR CHANNEL PLAN & PROFILE, SEE SHT. 11.
5. REMOVE & RELOCATE EXIST. 24" PIPE. PROVIDE NEW PIPE AT ANGLE POINTS, SEE SPECS.
6. FOR PIPE JOINT DETAILS SEE SHT. 19

BENCH MARK
STA. 167+88 CHARLESTON BLVD. 49' N OF ℄, SPIKE & TIN ON S. SIDE OF RR @ 12630-T
ELEV. = 1741.29 C.L.V. DATUM

ACCESS MANHOLE DETAIL
NO SCALE

NOTE: PIPE LINE STATIONING IS ALONG ℄ OF WATER LINE.

PROFILE SCALE: HORIZ. 1" = 20' VERT. 1" = 8' ⚠1

EXISTING PIPE JOINT FIELD WELD
NO SCALE

CONCRETE ENCASEMENT BETWEEN (STA. 0+75 & STA 2+58.62) ⚠1
SCALE: 1/2" = 1'0"

REV	DATE	DESCRIPTION
1	4-27-79	REV. ALIGNMENT, PROFILE & STATIONING, 24" W/L
2	5-3-79	A.S.-MOVE QUAIL TRAIL TEE ITEM 6 OF ADD. #1

RECOMMENDED G. C. WALLACE 4-27-79 R.E. REG. DATE
APPROVED [illegible] 5-3-79 MONTGOMERY ENGINEERS OF NEVADA R.E. REG. DATE

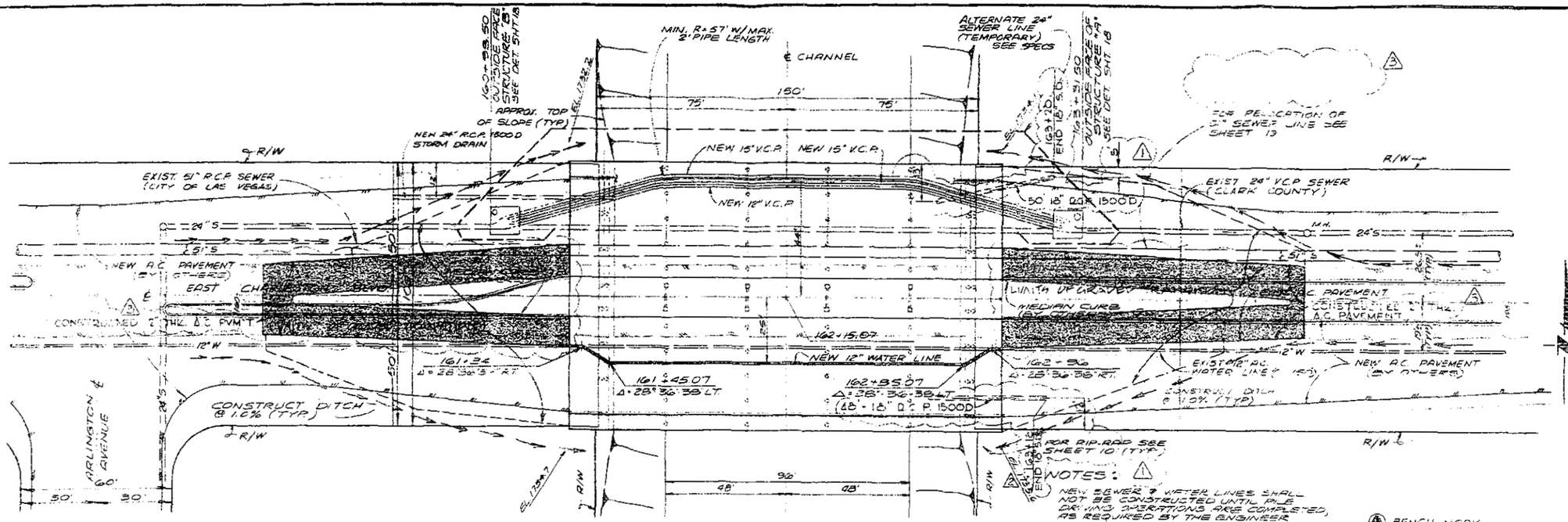
A.S. BUILT DRAWING

WALLACE - MONTGOMERY, A JOINT VENTURE
G. C. WALLACE, Consulting Engineer — MONTGOMERY ENGINEERS OF NEVADA
735-5709 — 735-7198
LAS VEGAS, NEVADA

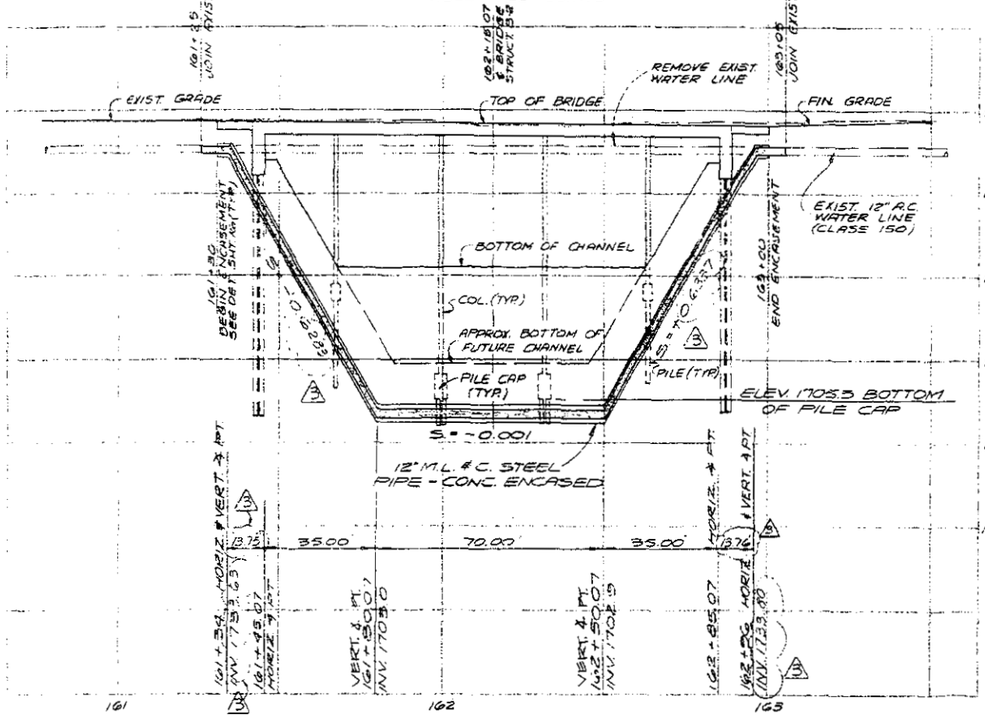
REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
E. CHARLESTON BLVD. - BRIDGES AND CHANNEL IMPROVEMENTS

24 INCH WATER MAIN RELOCATION PLAN & PROFILE

SHEET 16 OF 29 SHEETS

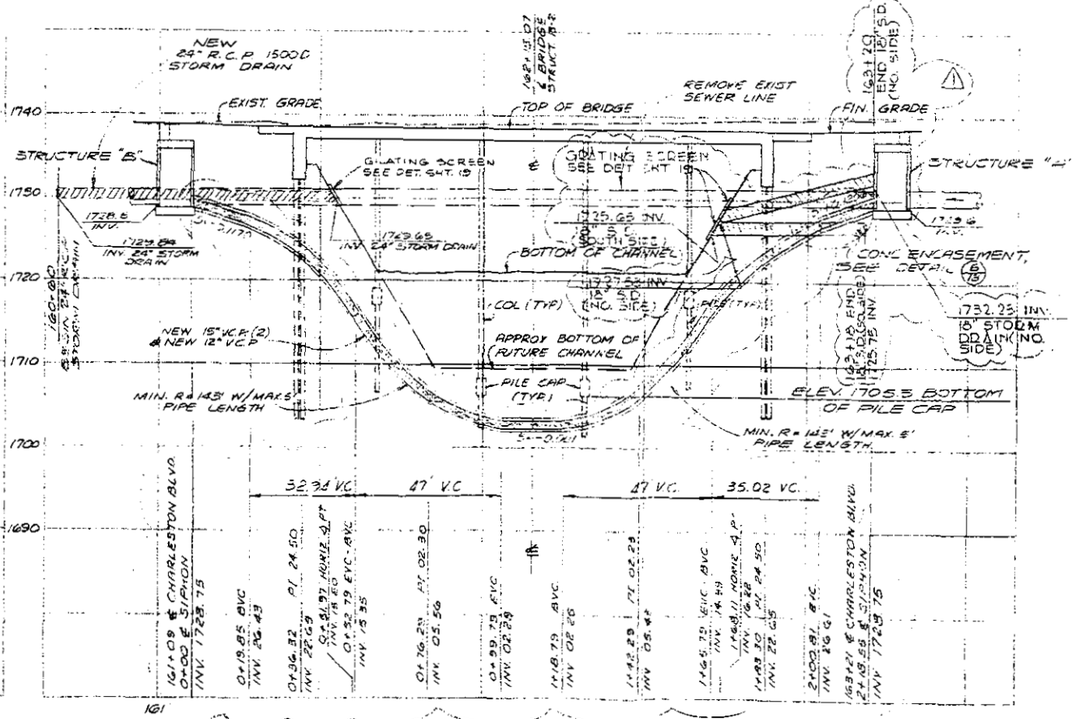


PLAN
SCALE : 1" = 20'



PROFILE - 12" WATER LINE

NOTE: 12" WATER LINE STATIONING SHOWN ON PLAN & PROFILE IS ALONG ℄ E. CHARLESTON BLVD.



PROFILE - SEWER SIPHON & 24" R.C.P. STORM DRAIN

SCALE : HORIZ. 1"=20'
VERT. 1"=8'

WALLACE - MONTGOMERY, A JOINT VENTURE
MONTGOMERY ENGINEERS OF NEVADA
G. C. WALLACE, Consulting Engineer
735-5799
LAS VEGAS, NEVADA

REGIONAL STREET AND HIGHWAY COMMISSION, CLARK CO., NEV.
E. CHARLESTON BLVD. - BRIDGES AND CHANNEL IMPROVEMENTS
24" SEWER LINE & 12" WATER LINE RELOCATION
PLAN & PROFILE

SHEET 17 OF 34 SHEETS

AS BUILT DRAWING

ELEVATION REFERENCE MARKS

ERM #	ELEVATION	DESCRIPTION
RM1	1473.95	PK & leed in NE footing of power pole #252-4
RM2	1547.39	½" x 18" Rebar
RM3	1534.07	Chiseled square in SE corner of concrete pad
RM4	1572.79	Spike two feet above ground in three pole structure #15-8
RM5	1633.68	Spike two feet above ground in three pole structure #16-10
RM6	1660.56	Chiseled square in SE corner of street light
RM7	1682.58	RR spike "BMHW18" in power pole #60135
RM8	1695.65	Metal plate on bridge in curb SE corner "BM4012"
RM9	1723.09	2" brass disc on SW PCR of Christy Way and Starridge Way

MAPPING INFORMATION

HORIZONTAL CONTROL: NORTH AMERICAN DATUM 1983 (NAD83), ZONE 2701 NEVADA EAST, NAVD88, US SURVEY FEET

VERTICAL CONTROL: NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD29)

Layer Listing
Drawing: RMSXSECTS2.DWG
Date: 01/07/99

Layer	Color	Linetype	Description
----TX01	1	CONTINUOUS	Text\Lines Text Pen 1
----TX02	2	CONTINUOUS	Text\Lines Text Pen 2
----TX03	3	CONTINUOUS	Text\Lines Text Pen 3
----TX04	4	CONTINUOUS	Text\Lines Text Pen 4
----TX05	5	CONTINUOUS	Text\Lines Text Pen 5
----TX06	6	CONTINUOUS	Text\Lines Text Pen 6
----TX07	7	CONTINUOUS	Text\Lines Text Pen 7
----TX08	8	CONTINUOUS	Text\Lines Text Pen 8
BOSS_ABUT_SCOUR	6	DASHED2	Boss RMS Layer N/A
BOSS_ABUTMENT	2	CONTINUOUS	Boss RMS Layer N/A
BOSS_BANK	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_BASE	1	CONTINUOUS	Boss RMS Layer N/A
BOSS_BLCH	6	CONTINUOUS	Boss RMS Layer N/A
BOSS_CHIMP	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_CONT_SCOUR	1	CONTINUOUS	Boss RMS Layer N/A
BOSS_CRIWS	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_CWSEL	5	CONTINUOUS	Boss RMS Layer N/A
BOSS_DESC	1	CONTINUOUS	Boss RMS Layer N/A
BOSS_EFFECT	2	CONTINUOUS	Boss RMS Layer N/A
BOSS_EG	4	CONTINUOUS	Boss RMS Layer N/A
BOSS_ENCROACH	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_FLOW	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_FLOW_CL	6	CENTER	Boss RMS Layer N/A
BOSS_FLOWCALC	5	CONTINUOUS	Boss RMS Layer N/A
BOSS_FLOWLEN	6	DASHED	Boss RMS Layer N/A
BOSS_FROZEN_CONFIG	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_GRID	8	CONTINUOUS	Boss RMS Layer N/A
BOSS_GROUND	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_INVERT	2	CONTINUOUS	Boss RMS Layer N/A
BOSS_IWEIR	2	CONTINUOUS	Boss RMS Layer N/A
BOSS_LABELS	15	CONTINUOUS	Boss RMS Layer N/A
BOSS_METAJOB	4	CONTINUOUS	Boss RMS Layer N/A
BOSS_NC_ROUGH	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_PIER_SCOUR	5	CENTER	Boss RMS Layer N/A
BOSS_PROFID	1	CONTINUOUS	Boss RMS Layer N/A
BOSS_PROFTEXT	1	CONTINUOUS	Boss RMS Layer N/A
BOSS_RATEID	1	CONTINUOUS	Boss RMS Layer N/A
BOSS_ROAD	15	CONTINUOUS	Boss RMS Layer N/A
BOSS_ROUGH	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_SCALC	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_TOPOCUT	2	CONTINUOUS	Boss RMS Layer N/A
BOSS_VPFROZEN	15	CONTINUOUS	Boss RMS Layer N/A
BOSS_VPTHAWED	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_WS_DEPTH	15	CONTINUOUS	Boss RMS Layer N/A
BOSS_WS_EDGE	7	CONTINUOUS	Boss RMS Layer N/A
BOSS_WS_ELEV	4	CONTINUOUS	Boss RMS Layer N/A
BOSS_WS_SHALLOW	1	CONTINUOUS	Boss RMS Layer N/A
BOSS_WSELK	6	CONTINUOUS	Boss RMS Layer N/A
DESC	3	CONTINUOUS	Softdesk AdCADD Point Description
ELEV	1	CONTINUOUS	Softdesk AdCADD Point Elevation
EXPN_CORP_LIMIT	7	CONTINUOUS	Corporate Limit Line
EXPNFL	7	CONTINUOUS	Existing Planimetrics/MMF Flow Line
EXPNFL_DUCK	7	CONTINUOUS	Flow line, Duck Creek to Charleston
EXPNFL_TX	7	CONTINUOUS	Flow line, Lake to Duck Creek
EXPNFL_TX_DUCK	7	CONTINUOUS	Flow line, text
PNTS	2	CONTINUOUS	Softdesk AdCADD Point Number
PRHYXS_DUCK	6	CONTINUOUS	Cross sections, Lake to Duck Creek
PRHYXS_DUCK_LBL	4	CONTINUOUS	Cross section labels, Lake to Duck Creek
PRHYXS_LV	5	CONTINUOUS	Cross sections, Duck Creek to Charleston
PRHYXS_LV_LBL	4	CONTINUOUS	Cross section labels, Duck Creek to Charleston
PRHYXSLEA	100	ACAD_ISO03W100	Cross section leader lines
PRHYXST	5	CONTINUOUS	Cross section labels
PRMA_BFE_DUCKCOMBINED	7	CONTINUOUS	BFE's, combined LV.DAT & LVDUCK.DAT
PRMA_DUCK_AE	141	CONTINUOUS	Zone AE, Lake to Duck Creek
PRMA_DUCK_AE_HATCH	141	CONTINUOUS	Zone AE hatch, Lake to Duck Creek
PRMA_DUCK_FW	7	CONTINUOUS	Floodway , Lake to Duck Creek
PRMA_DUCK_FW_HATCH	7	CONTINUOUS	Floodway hatch, Lake to Duck Creek
PRMA_ERM	5	CONTINUOUS	Elevation Reference Marks
PRMA_LV_AE	141	CONTINUOUS	Zone AE, Duck Creek to Charleston
PRMA_LV_AE_HATCH	141	CONTINUOUS	Zone AE Hatch, Duck Creek to Charleston
PRMA_LV_AE_RIGHT	7	CONTINUOUS	Zone AE right, XS306 to Duck Creek LV.DAT
PRMA_LV_BFE	7	CONTINUOUS	BFE's, Duck Creek to Charleston LV.DAT
PRMA_LV_BFENOTUSED	6	CONTINUOUS	BFE's, LV.DAT bfe's not used (see combined BFE's)
PRMA_LV_FW	7	CONTINUOUS	Floodway, Duck Creek to Charleston LVFW.dat
PRMA_LV_FW_HATCH	7	CONTINUOUS	Floodway hatch, Duck Creek to Charleston LVFW.dat
PRMA_LVDUCK_AE_LEFT	7	CONTINUOUS	Zone AE left bank near Duck Creek LVDUCK.DAT
PRMA_LVDUCK_BFE	7	CONTINUOUS	BFE's, XS100 to XS306
PRMA_LVDUCK_BFENOTUSED	6	CONTINUOUS	BFE's, not used XS306-XS510 (see combined BFE's)
PRMA_SPLIT_A01	135	CONTINUOUS	Zone A01, Split flow U/S of Sahara Ave.
PRMA_SPLIT_A01_HATCH	135	CONTINUOUS	Zone A01 hatch, Split flow U/S of Sahara Ave.
PTS	7	CONTINUOUS	Softdesk points

Layer Listing
Drawing: lv01r.dwg, 0519-02.dwg, 0519-03.dwg, 0519-04.dwg
Date: 01/07/99

DWG	Layer	Color	Linetype	Description
0519-02.dwg	EXLSBH	11	CONTINUOUS	Existing Landscaping Bush or Shrub
0519-02.dwg	EXLSTR	11	CONTINUOUS	Existing Landscaping Tree
0519-02.dwg	EXMAGD	11	CONTINUOUS	Existing Mapping/Control Grid
0519-02.dwg	EXMAPT	1	CONTINUOUS	Existing Mapping/Control Point
0519-02.dwg	EXMATX	1	CONTINUOUS	Existing Mapping/Control Text
0519-02.dwg	EXPN-BLEECHERS	13	CONTINUOUS	Existing Mapping/Beeechers
0519-02.dwg	EXPN-POOL	13	CONTINUOUS	Existing Mapping/Pool
0519-02.dwg	EXPNAC	11	HIDDEN	Existing Planimetrics/MMF Asphalt Concrete
0519-02.dwg	EXPNBG	13	CONTINUOUS	Existing Planimetrics/MMF Building Line
0519-02.dwg	EXPNCS	12	CONTINUOUS	Existing Planimetrics/MMF Concrete Slab or Pad
0519-02.dwg	EXPNCW	13	CONTINUOUS	Existing Planimetrics/MMF Concrete Wall
0519-02.dwg	EXPNDR	16	DASHED2	Existing Planimetrics/MMF Pipe Drain
0519-02.dwg	EXPNER	12	CONTINUOUS	Existing Planimetrics/MMF Edge of Road
0519-02.dwg	EXPNFC	12	CONTINUOUS	Existing Planimetrics/MMF Fence
0519-02.dwg	EXPNFL	7	CONTINUOUS	Existing Planimetrics/MMF Flow Line
0519-02.dwg	EXPNFL_TEXT	7	CONTINUOUS	Existing Planimetrics/MMF Flow Line text
0519-02.dwg	EXPNFL_TX	7	CONTINUOUS	Existing Planimetrics/MMF Flow Line text
0519-02.dwg	EXPNMC	12	CONTINUOUS	Existing Planimetrics/MMF Miscellaneous
0519-02.dwg	EXSODK	11	CENTER2	Existing Storm Drain Ditch Centerline
0519-02.dwg	EXSIYS	12	CONTINUOUS	Existing Signing/Striping Yellow Stripe
0519-02.dwg	EXTO-WATER-POND	13	CONTINUOUS	Existing topo water pond
0519-02.dwg	EXTO-DRY-WASH	13	PHANTOM	Existing topo dry wash
0519-02.dwg	EXTO-STREAM	13	STREAMT	Existing topo stream
0519-02.dwg	EXTOLB	14	CONTINUOUS	Existing Topography/N.F. Label
0519-02.dwg	EXTOMA-DASH-DEP	12	DASHED	Existing Topo major
0519-02.dwg	EXTOMA-DASH	12	DASHED	Existing Topo major
0519-02.dwg	EXTOMA-DEP	12	CONTINUOUS	Existing Topo major
0519-02.dwg	EXTOMA-DTK	12	CONTINUOUS	Existing Topo major
0519-02.dwg	EXTOMA	12	CONTINUOUS	Existing Topo major
0519-02.dwg	EXTOMI-DASH-DEP	11	DASHED	Existing Topo minor
0519-02.dwg	EXTOMI-DASH	11	DASHED	Existing Topo minor
0519-02.dwg	EXTOMI-DEP	11	CONTINUOUS	Existing Topo minor
0519-02.dwg	EXTOMI-DTK	11	CONTINUOUS	Existing Topo minor
0519-02.dwg	EXTOMI	11	CONTINUOUS	Existing topo contour minor
0519-02.dwg	EXTORV	13	CONTINUOUS	Existing Topography/N.F. River or Creek Edge
0519-02.dwg	EXTOSV	11	CONTINUOUS	Existing Topography/N.F. Spot Elevation
0519-02.dwg	EXUTBX	11	CONTINUOUS	Existing Utility Box
0519-02.dwg	EXUTLP	13	CONTINUOUS	Existing Utility Light Pole
0519-02.dwg	EXUTPO	13	CONTINUOUS	Existing Utility Pole

Study Contractor: Nolte & Associates, Inc.

MISCELLANEOUS REFERENCE MATERIALS

Clark County, Nevada

(COMMUNITY NAME, STATE)

FLOOD INSURANCE STUDY

STREAM NAME	DESCRIPTION	FILE NAME	ID NO.
Las Vegas Wash	Digital Data Submission Checklist	5E CID32003	002
Las Vegas Wash	Contact List	5E CID32003	003
Las Vegas Wash	USGS 7.5 min Quadrangles	5E CID32003	004

CONTACT LIST

Community/Agency	Contact	Address	Phone
Carson City Reproduction Office for NDOT	Laverne Dan Lyons		(702) 888-7601 (702) 888-7270
City of Henderson	Curt Chandler	Henderson, NV	(702) 656-2329
Clark County DPW General Information Maps and Records	Steve Parrish Robert Thompson	Las Vegas, NV	(702) 455-4603 (702) 455-4600 (702) 455-4605 (702) 455-4600
Clark County Parks and Recreation	Dirick Van Gorp (retired) Mickey Carter Michelle Picanzi	2601 East Sunset Rd Las Vegas, NV 89121	(702) 455-8298 (702) 455-2455
Clark County RFCD	Kevin Eubanks	301 E. Clark Avenue Suite 301 Las Vegas, NV 89101	(702) 455-3139
Clark County RFCD	Stan Clawson	GIS Support	(702) 455-5628
Cooper Aerial	Jim Denny Cathy Hendrickx	750 South Valley View Suite Las Vegas, NV 89103	(702) 362-4776
FEMA	Les Sakumoto	FEMA, Rgn IX, Bldg. 105 Presidio of S.F. S.F.,CA 94129	(415) 923-7183
Michael Baker Engineers	Neil Gruber Ed Miflin		(703) 317-6287
National Weather Service	Gary Barbados	2350 Raggio Parkway Reno, NV 89512-3900	(702) 673-8100
Nevada Department of Transportation (NDOT)			(702) 385-6500
Nimbus Engineers	Peggy Bowker	3710 Grant Dr. Reno, NV 89509	(702) 689-8630
Northwest Hydraulics	Ed Wallace	3950 Industrial Blvd. #100C West Sacramento, CA 95691	(916) 371-7400
NRCS - National Resource Conservation Service	Jim Louthan	5301 Longley Lane Building F, Suite 201 Reno, NV 89511	(702) 784-5863
RTC - Regional Transportation Commission	Kirk Nichols		(702) 348-0171 ext. 104
SCS/NRCS	John McClung		(702) 784-5863 fax (702) 784-5939

CONTACT LIST			
Community/Agency	**Contact**	**Address**	**Phone**
State of Nevada	*Jim Goodfellow	Capitol Complex 2525 S. Carson Street Carson City, NV 89710	*(702) 687-4240
State of Nevada Department of Transportation	Amir Soltani		(702) 888-7490
US Army Corps of Engineers Sacramento District	Donna C. Garcia	1325 J Street Sacramento, CA 95814	(916) 557-6782
USGS	Steve Hammon		(702) 887-7721
USGS	Rhea Williams		(702) 887-7625
Washoe County	Mimi Fujii	1001 E. Ninth Street P.O. Box 11130 Reno, NV 89520	(702) 328-2041
Washoe County	Leonard Crow	Comprehensive Planning	(702) 328-3631
Washoe County	Moni Fox	GIS Support	(702) 328-6130
Washoe County	Walter West Kris Klein Kimble Corbridge	Engineering - Sun Valley Project Engineering - Virginia Foothills Project Engineering	(702) 328-2041 (702) 328-2046 (702) 328-2041
JMM (Montgomery-Watson)	Steve Mano	Reno Irvine	(702) 878-8010 (714) 261-7210

Photo 5 Looking North from centerline of Telephone Line Rd

Photo 6 Looking West at channel crossing over Treatment Plant Rd

Photo 7 Looking at left overbank vegetation near Treatment Plant Rd

Photo 8 Looking at right overbank vegetation near Treatment Plant Rd

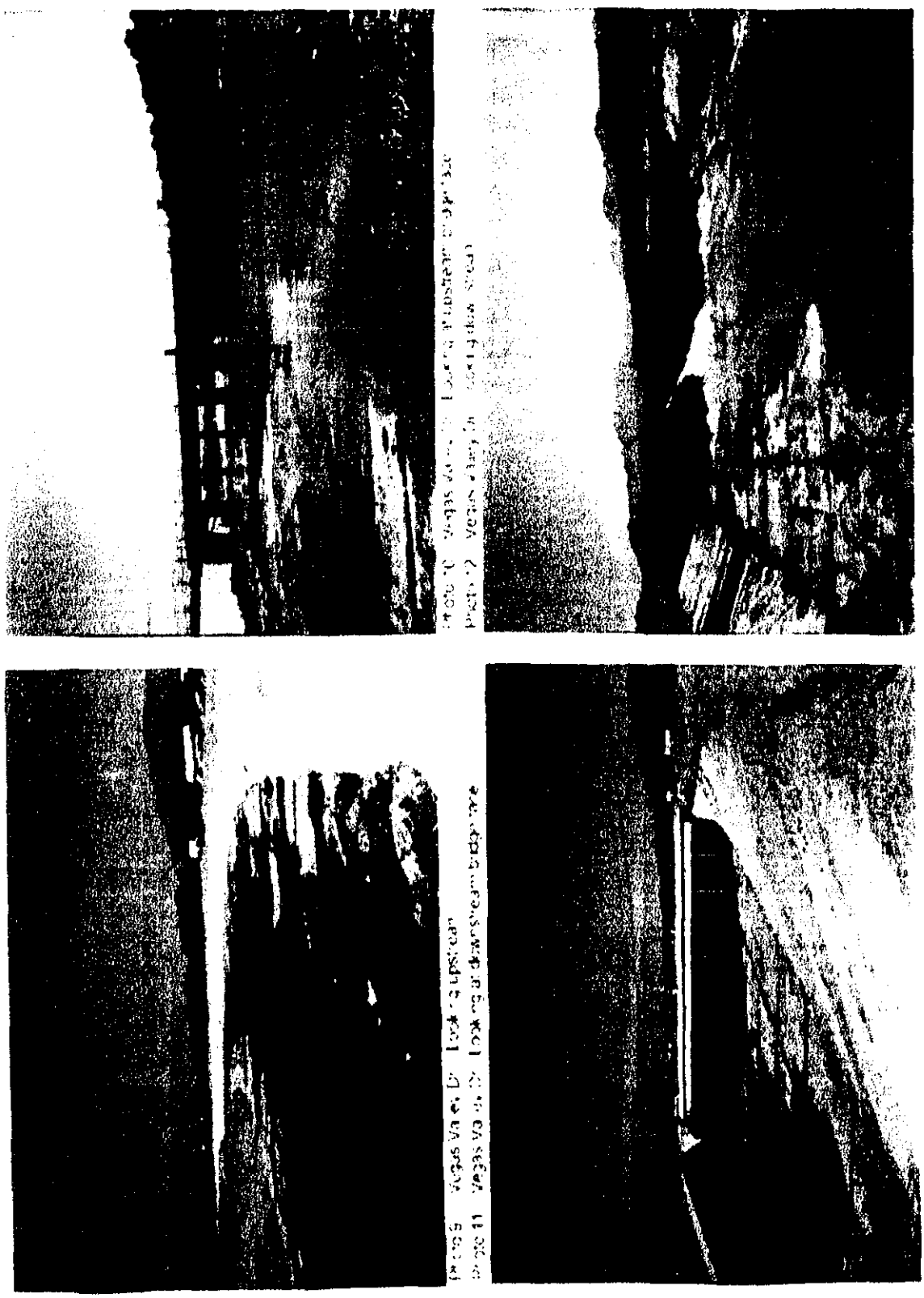


Photo 13 Looking D.S Range Wash at confluence with Las Vegas Wash

Photo 14 Looking U.S Las Vegas Wash at confluence with Range Wash

Photo 15 Looking D.S from gage / cart bridge between Range Wash & Flamingo Wash

Photo 16 Looking U.S from gage / cart bridge between Range & Flamingo

Photo 17 Sahara Ave Looking upstream

Photo 18 Sahara Ave Looking at downstream bridge face

Photo 19 Sahara Ave Looking at upstream bridge face

Photo 20 Sahara Ave Looking downstream

Photo 23 Neals Blvd. Looking at downstream bridge face

Photo 24 Neals Blvd. Looking downstream

Photo 25 Charleston Blvd Looking upstream

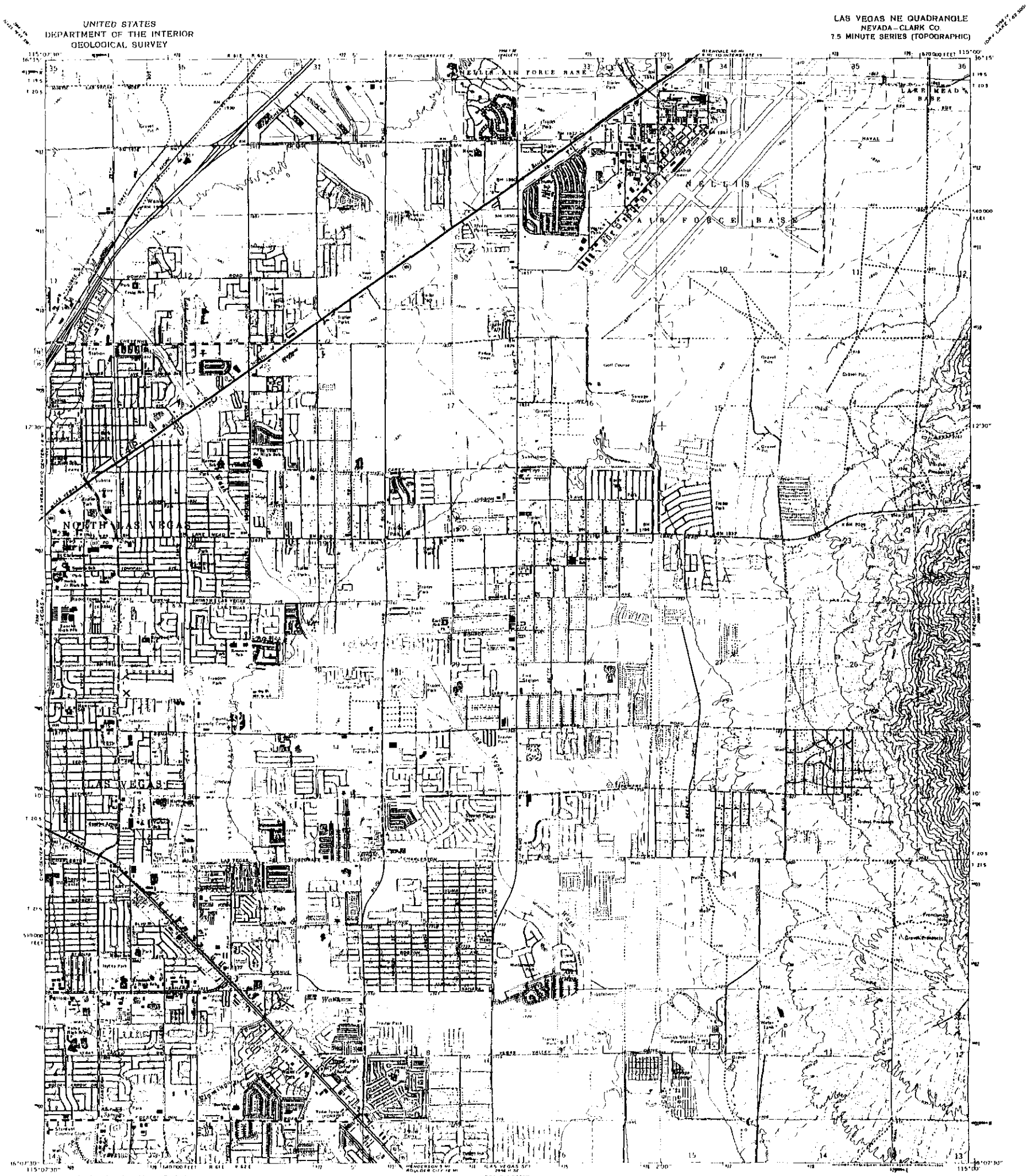
Photo 26 Charleston Blvd Looking at upstream bridge face

Photo 27 Charleston Blvd Looking at downstream bridge face

Photo 28 Charleston Blvd Looking downstream

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAS VEGAS NE QUADRANGLE
NEVADA – CLARK CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1965. Field checked 1967

Polyconic projection. 10,000 foot grid ticks based on Nevada coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 5 meters north and 75 meters east as shown by dashed corner ticks

Red tint indicates areas in which only landmark buildings are shown

A portion of the west half of this map lies within a subsidence area

There may be private inholdings within the boundaries of the National or State reservations shown on this map

UTM GRID AND 1984 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24000

CONTOUR INTERVAL 20 FEET
SUPPLEMENTARY CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, P.O. BOX 25286, DENVER, COLORADO 80225
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

Revisions shown in purple and woodland compiled from aerial photographs taken 1982 and other sources. This information not field checked. Map edited 1984

Purple tint indicates extension of urban areas

ROAD CLASSIFICATION

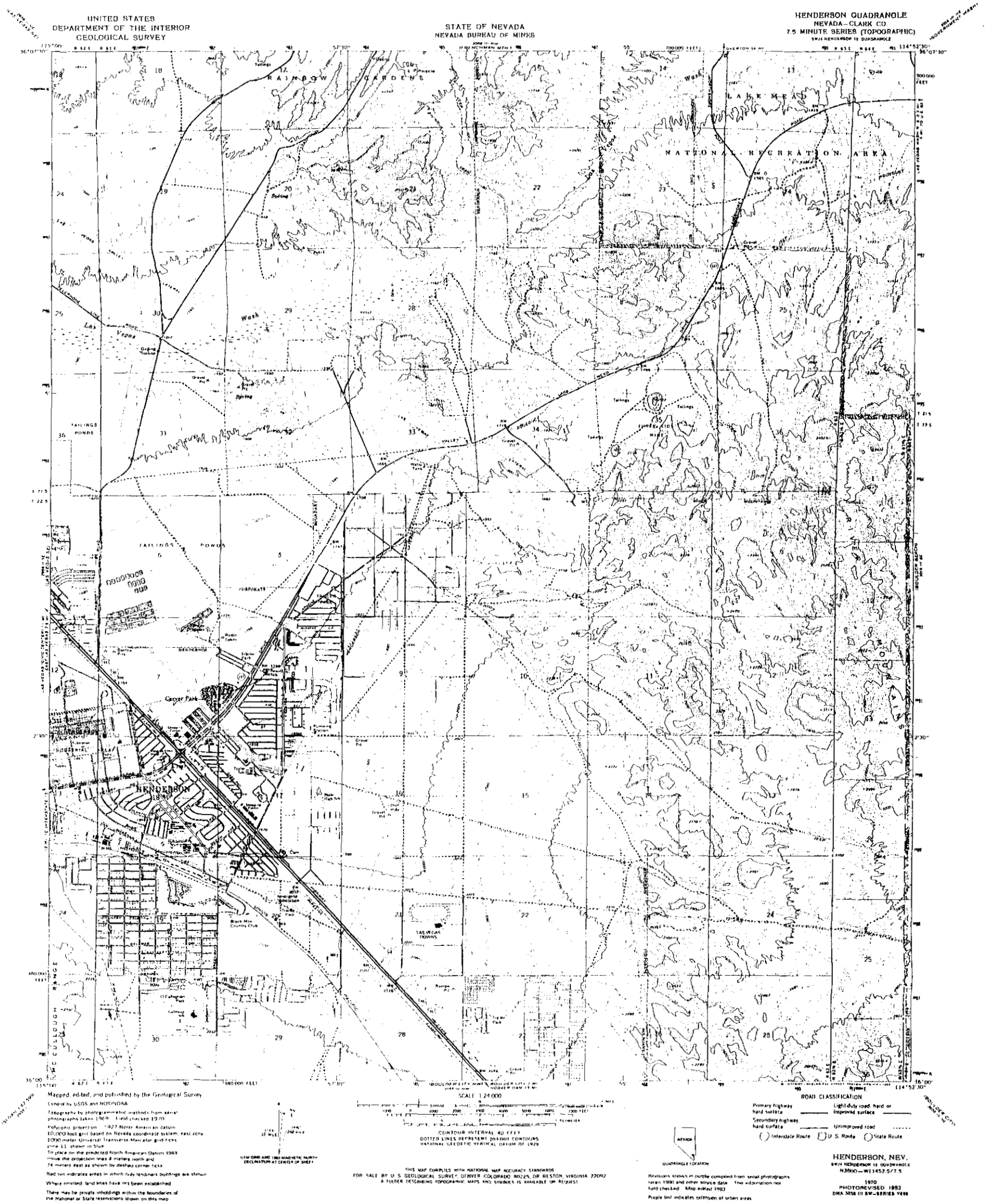
Primary highway, hard surface — Light duty road, hard or improved surface —
Secondary highway, hard surface — Unimproved road .....
Interstate Route U.S. Route State Route

LAS VEGAS NE, NEV.
36118 B1-TF-024

1987
PHOTOREVISED 1984
DMA 3958 II NE-SERIES V898

ISBN 0-607-39547-4

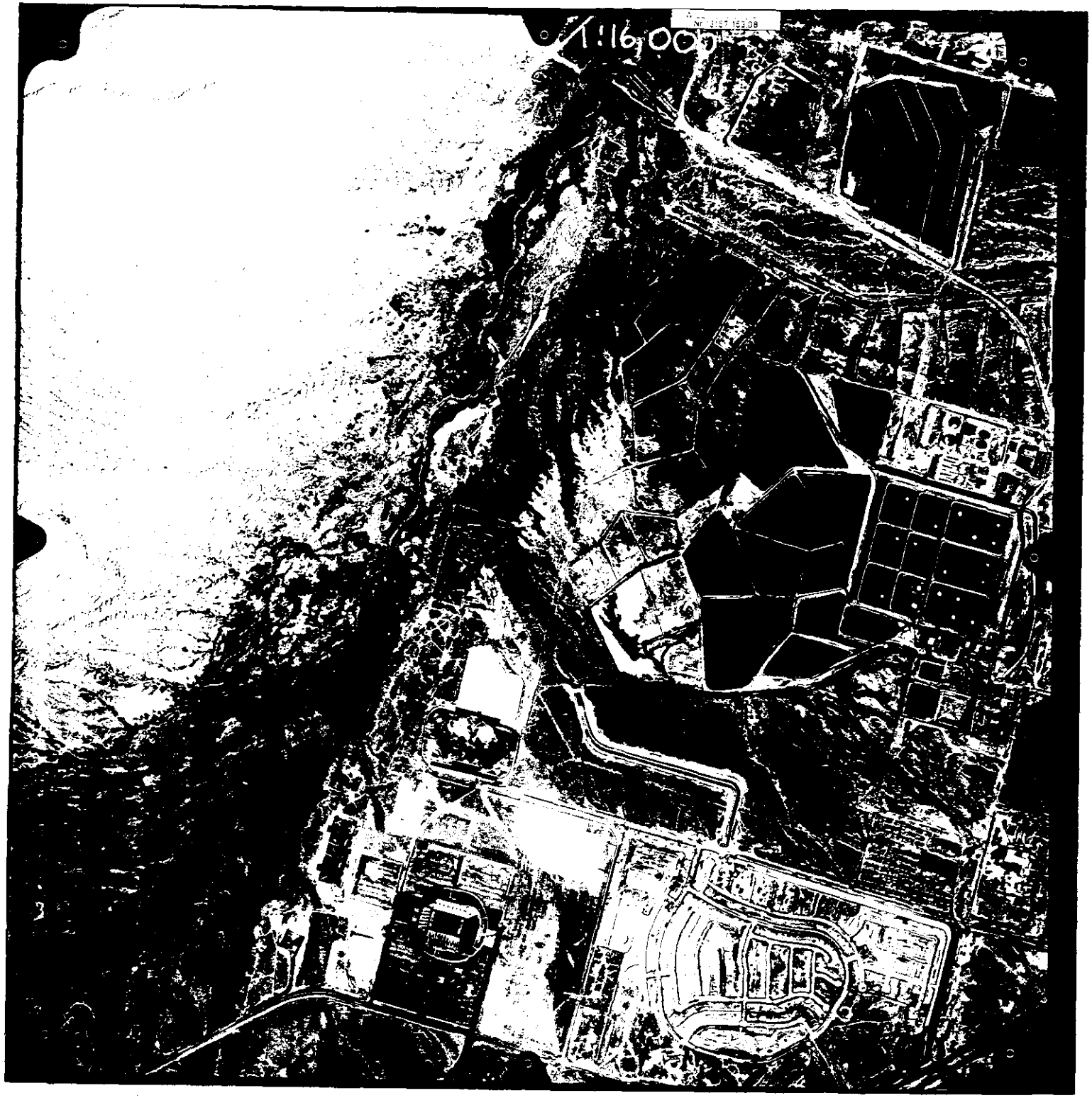
5E CID32003 004


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
STATE OF NEVADA
NEVADA BUREAU OF MINES
HENDERSON QUADRANGLE
NEVADA—CLARK CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
RAINBOW GARDENS
LAKE MEAD
NATIONAL RECREATION AREA
HENDERSON
Las Vegas
Wash
TAILINGS PONDS
Green Valley
Black Mtn. Golf Club
LAS VEGAS DOWNS
BOULDER CITY
BOULDER CITY MTNS.
BLACK MTNS.
Mapped, edited, and published by the Geological Survey
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs taken 1969. Field checked 1970
Polyconic projection. 1927 North American datum
10,000-foot grid based on Nevada coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue
To place on the predicted North American Datum 1983 move the projection lines 8 meters north and 74 meters east as shown by dashed corner ticks
Red tint indicates areas in which only landmark buildings are shown
Where omitted, land lines have not been established
There may be private inholdings within the boundaries of the National or State reservations shown on this map
SCALE 1:24 000
CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
ROAD CLASSIFICATION
Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U.S. Route
State Route
NEVADA
QUADRANGLE LOCATION
Revisions shown in purple compiled from aerial photographs taken 1981 and other source data. This information not field checked. Map edited 1983
Purple tint indicates extension of urban areas
HENDERSON, NEV.
SW/4 HENDERSON 15 QUADRANGLE
N3600—W11452.5/7.5
1970
PHOTOREVISED 1983
DMA 3058 II SW—SERIES V498

MARSH ROAD

12-18-96 A 16-1

N: 3157 153.06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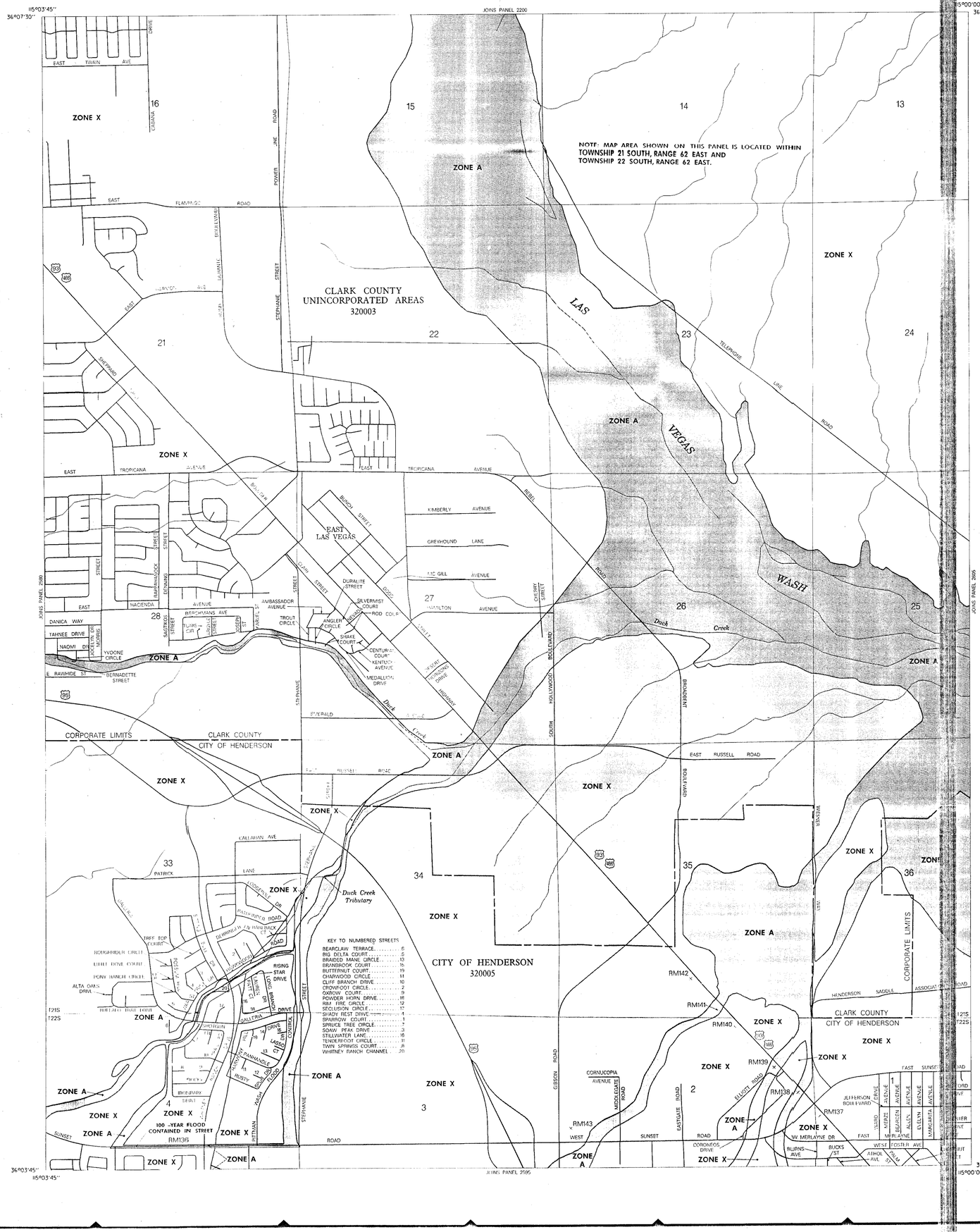
12-18-96
1-8

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
RM136	1755.63	"T" bar located approximately 3,145 feet east of RM24, and approximately 40 feet north of the north edge of Sunset Road. Established by U.S. Soil Conservation Service.
RM137	1657.91	Spike and tin located approximately 200 feet southeast of the intersection of Sunset Road and Boulder Highway on the south edge of the southbound lane. Established by U.S. Soil Conservation Service.
RM138	1656.38	Spike and tin located on Boulder Highway approximately 110 feet south of the junction with Coronado Drive. Established by U.S. Soil Conservation Service.
RM139	1653.59	Spike and tin located on Boulder Highway at approximate intersection with Elliott Road. Established by U.S. Soil Conservation Service.
RM140	1647.77	Spike and tin located on Boulder Highway at approximate intersection with Castlerock Drive. Established by U.S. Soil Conservation Service.
RM141	1648.68	Spike and tin located on Boulder Highway approximately 450 feet north of Castlerock Drive. Established by U.S. Soil Conservation Service.
RM142	1649.42	Spike and tin located on Boulder Highway approximately 1,450 feet north of Castlerock Drive. Established by U.S. Soil Conservation Service.
RM143	1700.09	"T" bar located approximately 180 feet east of the east edge of Gibson Road, and approximately 300 feet north of the north edge of Sunset Road. Established by U.S. Soil Conservation Service.



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** No base flood elevations determined.
- **ZONE AE** Base flood elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.
- **ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- **ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside 500-year floodplain.
- **ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Identified 1983 | Identified 1990 | Otherwise Protected Areas

Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.

- Flood Boundary
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.
- 513 — Base Flood Elevation Line; Elevation in Feet. See Map Index for Elevation Datum.
- D — D — Cross Section Line
- (EL 987) — Base Flood Elevation in Feet where Uniform Within Zone. See Map Index for Elevation Datum.
- RM7 — Elevation Reference Mark
- M2 — River Mile
- 97°07'30", 32°22'30" — Horizontal Coordinates Based on North American Datum of 1927 (NAD 27) Projection

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Coastal base flood elevations apply only landward of 0.0 (NGVD) and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of Special Flood Hazard (100-year flood) include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

This map may incorporate approximate boundaries of Coastal Barrier Resource System Units and /or Otherwise Protected Areas established under the Coastal Barrier Improvement Act of 1990 (PL 101-591).

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of this map.

For community map revision history prior to countywide mapping, see Section 6.0 of the Flood Insurance Study Report.

For adjoining map panels and base map source see separately printed Map Index.

MAP REPOSITORY
Refer to Repository Listing on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP:
AUGUST 16,1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE DATE shown on this map to determine when actuarial rates apply to structures in zones where elevations or depths have been established.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLARK COUNTY, NEVADA AND INCORPORATED AREAS

PANEL 2585 OF 4090
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY, UNINCORPORATED AREAS	320003	2585	D
HENDERSON, CITY OF	320005	2585	D

MAP NUMBER 32003C2585 D

EFFECTIVE DATE: AUGUST 16,1995

Federal Emergency Management Agency

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
RM174	1781.47	Two-inch brass cap at the north edge of Lamb Boulevard, at the Three Crowns Mobile Manor. Established by Clark County Regional Planning Council.
RM175	1760.32	Intersection of East Stewart Avenue and Lamb Boulevard, 4.0 feet south of centerline of East Stewart Avenue. Established by Clark County Regional Planning Council.
RM177	1752.48	Northwest corner of intersection of Lamb and East Charleston Boulevards. Established by Clark County Regional Planning Council.
RM178	1792.81	Spike in curb at intersection of Washington Avenue and Walnut Street. Established by Clark County Regional Planning Council.
RM179	1771.87	Spike located in Marion Drive, approximately 500 feet north of Washington Avenue. Established by Clark County Regional Planning Council.
RM181	1772.05	Railroad spike at the centerline of Lamb Boulevard and centerline of Bonanza Road. Established by Clark County Regional Planning Council.

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** No base flood elevations determined.
- **ZONE AE** Base flood elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- **ZONE V** Coastal flood with velocity hazard (wave action); base flood elevations determined.
- **ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- **ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside 500-year floodplain.
- **ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Identified 1983 | Identified 1990 | Otherwise Protected Areas

Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 Base Flood Elevation Line; Elevation in Feet. See Map Index for Elevation Datum.

D–D Cross Section Line

(EL 987) Base Flood Elevation in Feet Where Uniform Within Zone. See Map Index for Elevation Datum.

RM7 Elevation Reference Mark

M2 River Mile

97°07'30", 32°22'30" Horizontal Coordinates Based on North American Datum of 1927 (NAD 27) Projection.

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Coastal base flood elevations apply only landward of 0.0 NGVD, and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of Special Flood Hazard (100-year flood) include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

This map uses interpolate approximate boundaries of Coastal Barrier Resource System Units and of Otherwise Protected Areas established under the Coastal Barrier Improvement Act of 1990 (PL 101-591).

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of this map.

For community map history prior to countywide mapping, see Section 6.2 of the Flood Insurance Study Report.

For adjoining map panels and base map source see separately printed Map Index.

MAP REPOSITORY
Refer to Repository Listing on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP:
AUGUST 16,1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE DATE shown on this map to determine when actuarial rates apply to structures in zones where elevations or depths have been established.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLARK COUNTY, NEVADA AND INCORPORATED AREAS

PANEL 2187 OF 4090
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS, COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY, UNINCORPORATED AREAS	320003	2187	D
LAS VEGAS, CITY OF	325276	2187	D

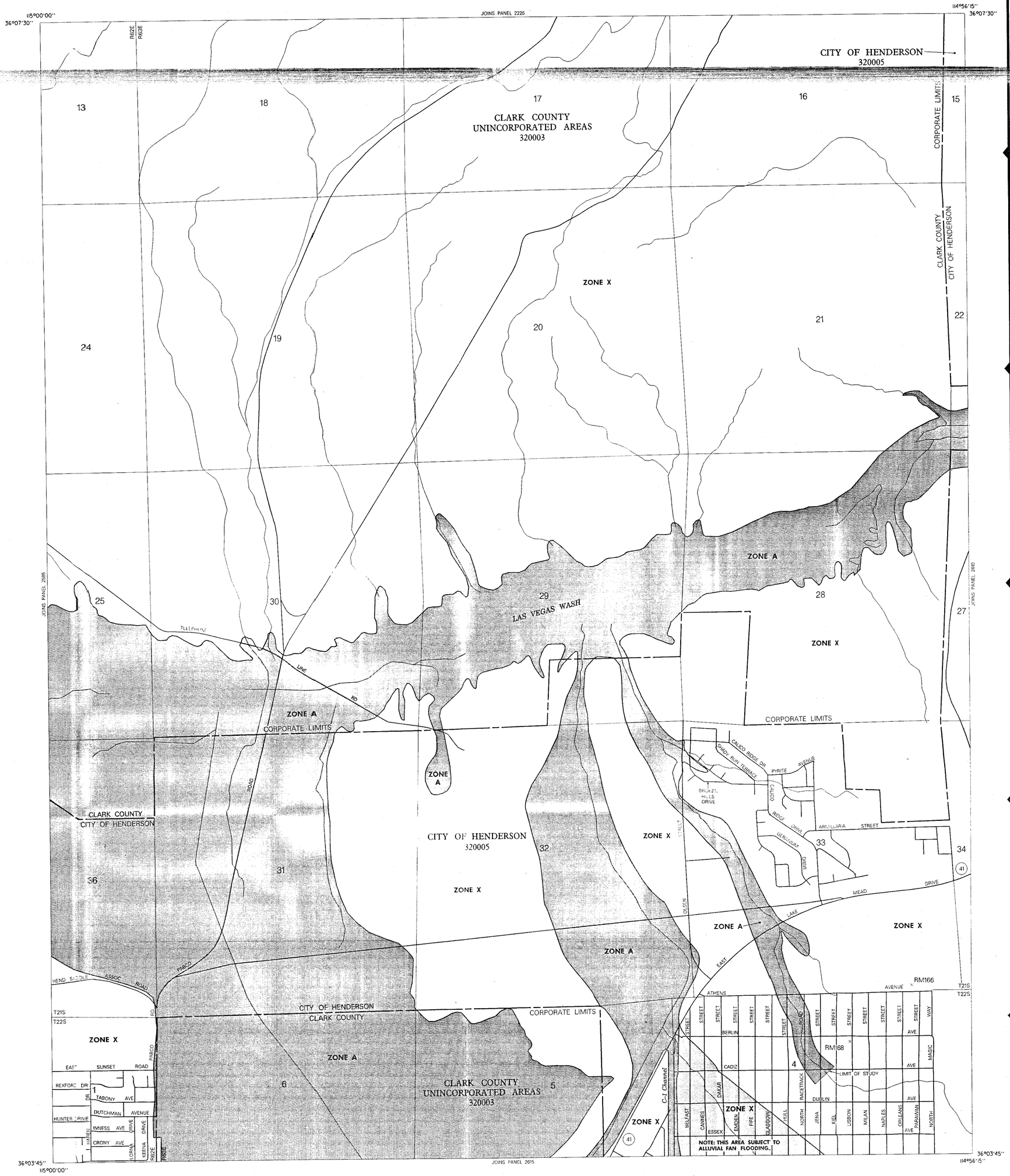
MAP NUMBER 32003C2187 D

EFFECTIVE DATE: AUGUST 16,1995

Federal Emergency Management Agency

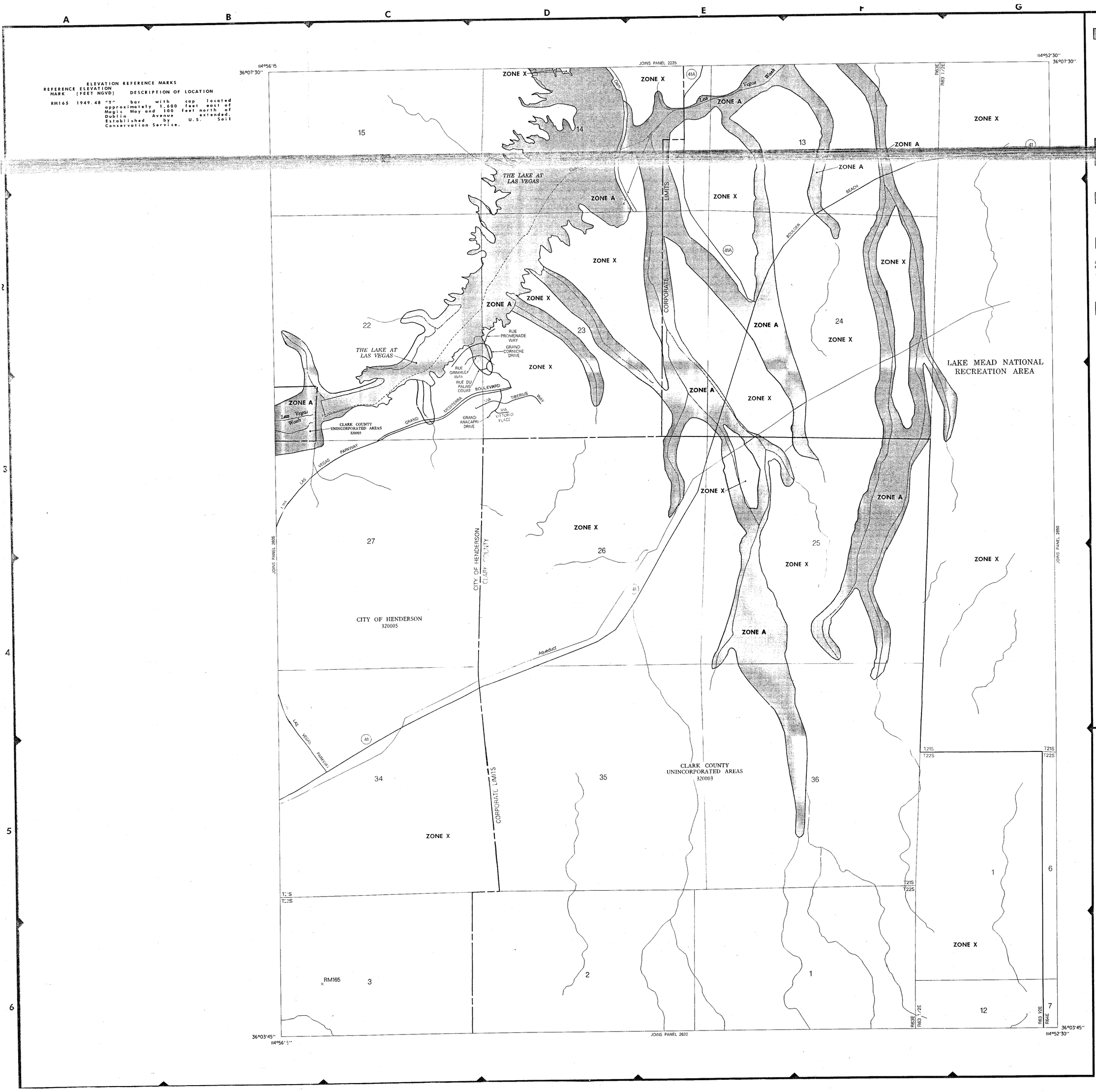
ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
RM166	1875.98	Two inch x two inch with nail located approximately 130 feet north of edge of Athens Avenue and 20 feet west of edge of Orleans Street, extended. Established by U.S. Soil Conservation Service
RM168	1815.35	"T" bar located approximately 60 feet west of the west edge of Lisbon Street, and 380 feet north of the edge of Cadiz Avenue. Established by U.S. Soil Conservation Service.


115°00'00"
36°07'30"
JOINS PANEL 2225
114°56'15"
36°07'30"
R62E
R63E
CITY OF HENDERSON
320005
CLARK COUNTY
UNINCORPORATED AREAS
320003
CORPORATE LIMITS
CLARK COUNTY
CITY OF HENDERSON
ZONE X
ZONE A
LAS VEGAS WASH
JOINS PANEL 2585
JOINS PANEL 2610
JOINS PANEL 2615
CORPORATE LIMITS
CLARK COUNTY
CITY OF HENDERSON
CITY OF HENDERSON
320005
CLARK COUNTY
UNINCORPORATED AREAS
320003
CORPORATE LIMITS
CITY OF HENDERSON
CLARK COUNTY
CORPORATE LIMITS
ZONE A
ZONE X
ZONE A
ZONE X
ZONE A
ZONE X
ZONE X
ZONE A
ZONE X
ZONE X
ZONE A
ZONE X

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
RM165	1949.48	"T" bar with cap located approximately 1,600 feet east of Magic Way and 100 feet north of Dublin Avenue extended. Established by U.S. Soil Conservation Service.



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** No base flood elevations determined.
- **ZONE AE** Base flood elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- **ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

- **ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside 500-year floodplain.
- **ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Identified 1983 | Identified 1990 | Otherwise Protected Areas

Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.

- Flood Boundary
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.
- 513 Base Flood Elevation Line; Elevation in Feet. See Map Index for Elevation Datum.
- (D)—(D) Cross Section Line
- (EL 987) Base Flood Elevation in Feet Where Uniform Within Zone. See Map Index for Elevation Datum
- RM7 × Elevation Reference Mark
- ● M2 River Mile

97°07'30", 32°22'30" Horizontal Coordinates Based on North American Datum of 1927 (NAD 27) Projection.

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Coastal base flood elevations apply only landward of 0.0 NGVD, and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of Special Flood Hazard (100-year flood) include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

This map may incorporate approximate boundaries of Coastal Barrier Resource System Units and /or Otherwise Protected Areas established under the Coastal Barrier Improvement Act of 1990 (PL 101-591).

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of this map.

For community map revision history prior to countywide mapping, see Section 6.0 of the Flood Insurance Study Report.

For adjoining map panels and base map source see separately printed Map Index.

MAP REPOSITORY
Refer to Repository Listing on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP:
AUGUST 16,1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE DATE shown on this map to determine when actuarial rates apply to structures in zones where elevations or depths have been established.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLARK COUNTY, NEVADA AND INCORPORATED AREAS

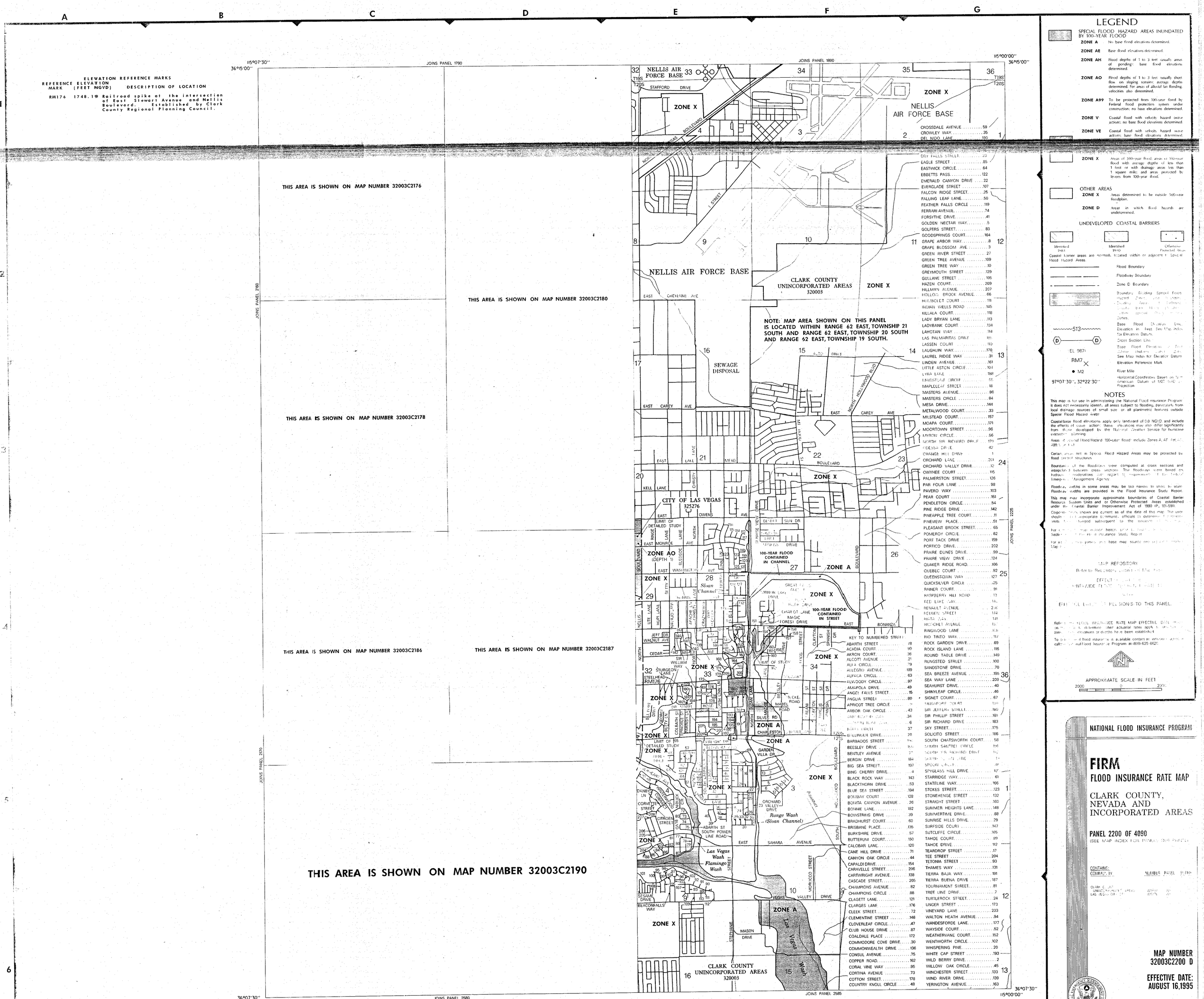
PANEL 2610 OF 4090
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY, UNINCORPORATED AREAS	320003	2610	D
HENDERSON, CITY OF	320005	2610	D

MAP NUMBER 32003C2610 D

EFFECTIVE DATE: AUGUST 16,1995

Federal Emergency Management Agency



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** No base flood elevations determined.
- **ZONE AE** Base flood elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- **ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.
- **ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside 500-year floodplain.
- **ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Identified 1983 | Identified 1940 | Otherwise Protected Area

Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.

- Flood Boundary
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones and Boundary Dividing Special Flood Hazard Areas of Different Water Surface Elevations or Flood Hazards within Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood
- 513 Base Flood Elevation Line; Elevation in Feet. See Map Index for Elevation Datum.
- D–D Cross Section Line
- (EL 987) Base Flood Elevation in Feet Where Uniform within Zone. See Map Index for Elevation Datum.
- RM7 × Elevation Reference Mark
- • M2 River Mile
- 97°07'30", 32°22'30" Horizontal Coordinates Based on North American Datum of 1927 (NAD 27) Projection

NOTES

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Coastal base flood elevations apply only landward of 0.0 NGVD and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of special flood hazard include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program, Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

This map may incorporate approximate boundaries of Coastal Barrier Resource System Units and or Otherwise Protected Areas established under the Coastal Barrier Improvement Act of 1990 (P.L. 101-591).

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine current corporate limits. Limits may have changed subsequent to the issuance of this map.

For adjoining map panels, see panel layout sheet; for adjoining Flood Insurance Rate Map panels, see Map Index.

For additional flood hazard information see the Flood Insurance Study Report.

For additional flood hazard, flood plain, and base map information see the Flood Insurance Study Report.

MAP REPOSITORY
Refer to Repository Listing on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
August 16, 1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For the latest flood insurance rate map effective date when purchasing insurance, to determine other actual rates applicable to buildings in the zones, and for base flood elevations or depths, refer to the Flood Insurance Study Report.

To obtain more flood insurance information, or available contact or emergency assistance, call the Federal Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
2000 0 2000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLARK COUNTY, NEVADA AND INCORPORATED AREAS

PANEL 2200 OF 4090
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY, UNINCORPORATED AREAS	320003	2200	D
LAS VEGAS, CITY OF	325276	2200	D

MAP NUMBER
32003C2200 D

EFFECTIVE DATE:
AUGUST 16,1995

Federal Emergency Management Agency

```
      6
    1.0  ************************************************
    1.0  STA 8050 IS LOCATED ON MAP WITH TIC MARK
    1.0  0500,0100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
    1.0  EXPRESSWAY.  2.5' TALL MEDIAN BARRIER PREVENTS
    1.0  BREAKOUT TO NORTH
    1.0  ************************************************
T1         Clark County, Nevada COE - 100 year flood to Sta 11,800
T2         James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 1
J1            2                .00925                              2100
J2     1          -1
J3   150
NH     6    0.08     9190    0.14     9960   0.045     9985   0.022    10015   0.045
NH 10500   0.123    15300
QT     4    6700    28450    6700    28450
ET           7.1      7.1     9.1                9960    11800     9960    12850
X1   1.0      22     9985   10015
X2                                                                    15.0
X4     6    2093     9500  2098.7    10370     2100    10700  2099.4    11000    2100
X4 11250  2100.6    11650
GR2105.0    6700  2099.0     8050     2097     8460     2097     8850     2095    9190
GR2093.5    9240  2095.5     9760     2094     9880   2100.5     9960     2095    9985
GR   2088   9992    2088    10008     2095    10015     2098    10500     2094   11100
GR   2101  11800  2099.5    12240     2101    12850   2099.8    13580     2101   14070
GR   2099  14450    2101    15300
EJ
T1         Clark County, Nevada COE - 500 year flood to Sta 11,800
T2         James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 1
J1            3                0.00925                             2100
J2     2          -1
T1         Clark County, Nevada COE - 100 year flood to Sta 12,850
T2         James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 1
J1            4                0.00925                             2100
J2     3          -1
T1         Clark County, Nevada COE - 500 year flood to Sta 12,850
T2         James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 1
J1            5                0.00925                             2100
J2    15          -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:39:59          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX

1
  18-FEB-88     15:40:01                                                    PAGE     1


  ***************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ***************************************************


C
T1          Clark County, Nevada COE - 100 year flood to Sta 11,800
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 1

J1   ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL       FQ
        0.        2.        2.        0.   0.009250       0.00       0.0       0.   2100.000      0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH        FN       ALLDC      IBW       CHNIM      ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000      0.000     0.000      0.000      0.000

J3   VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     0.000     0.000     0.000     0.000     0.000      0.000     0.000      0.000      0.000

NH       6.000     0.080  9190.000     0.140  9960.000     0.045  9985.000     0.022  10015.000     0.045
NH   10530.000     0.123 15300.000     0.000     0.000     0.000     0.000     0.000      0.000     0.000
QT       4.000  6700.000 28450.000  6700.000 28450.000     0.000     0.000     0.000      0.000     0.000
ET       0.300     7.100     7.100     9.100     9.100     0.000  9960.000 11600.000   9960.000 12850.000
          ***************************************************
          STA 8050 IS LOCATED ON MAP WITH TIC MARK
          9500,9100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
          EXPRESSWAY.  2.5' TALL MEDIAN BARRIER PREVENTS
          BREAKOUT TO NORTH
          ***************************************************
X1       1.000    22.000  9985.000 10015.000     0.000     0.000     0.000     0.000      0.000     0.000
X2       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000      0.000    15.000
```

X4	5.000	2093.000	9200.000	2098.700	10370.000	2100.000	10700.000	2099.400	11000.000	2100.000	
X4	11250.000	2100.600	11650.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	2105.000	6700.000	2098.000	8050.000	2097.000	8460.000	2097.000	8850.000	2095.000	9190.000	
GR	2093.500	9240.000	2095.500	9760.000	2094.000	9880.000	2100.500	9960.000	2095.000	9985.000	
GR	2088.000	9992.000	2088.000	10008.000	2095.000	10015.000	2098.000	10500.000	2094.000	11100.000	
GR	2101.000	11800.000	2099.500	12240.000	2101.000	12850.000	2099.800	13580.000	2101.000	14070.000	
GR	2099.000	14450.000	2101.000	15300.000	0.000	0.000	0.000	0.000	0.000	0.000	
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV	
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLORL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*PROF 1

1490 NH CARD USED
*SECNO 1.000
1553 STARTING NC CARD OMITTED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9960.0 11800.0 TYPE= 1 TARGET= 1840.000

****
STA 8050 IS LOCATED ON MAP WITH TIC MARK
Q500,Q100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
EXPRESSWAY. 2.5' TALL MEDIAN BARRIER PREVENTS
BREAKOUT TO NORTH
****

1.00	11.44	2099.44	2099.44	0.00	2100.47	1.03	0.00	0.00	2095.00	
6700.	103.	3349.	3248.	45.	294.	1811.	0.	0.	2095.00	
0.00	2.29	11.38	1.79	0.045	0.022	0.061	0.000	2088.00	9964.81	
0.001712	3.	0.	3.	0	10	0	0.00	936.42	11236.05	

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2099.44

STA=	9965.	9985.	10015.	10370.	10500.	10644.	11100.	11236.
PER Q=	1.5	50.0	35.4	3.1	0.6	4.0	5.4	
AREA=	44.8	294.3	920.1	141.9	104.0	274.6	370.2	
VEL=	2.3	11.4	2.6	1.4	0.4	1.0	1.0	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood to Sta 11,800
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 1

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.009250	0.00	0.0	0.	2100.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

1490 NH CARD USED
*SECNO 1.000
1553 STARTING NC CARD OMITTED
3280 CROSS SECTION 1.00 EXTENDED 1.38 FEET

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9953.0 11800.0 TYPE= 1 TARGET= 1840.000

****
STA 8950 IS LOCATED ON MAP WITH TIC MARK
9500,9100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
EXPRESSWAY. 2.5' TALL MEDIAN BARRIER PREVENTS
BREAKOUT TO NORTH
****

1.00	14.38	2102.38	2102.38	2099.44	2103.93	1.55	0.00	0.00	2095.00
28450.	578.	7260.	20612.	116.	382.	0.	6413.	0.	2095.00
0.00	4.99	18.98	3.21	0.045	0.022	0.059	0.000	2088.00	9960.00
0.003357	0.	0.	0.	0	12	0	0.00	1840.00	11800.00

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2102.38

STA=	9960.	9985.	10015.	10370.	10500.	10700.	11000.	11100.	11250.	11650.	11800.
PER Q=	2.0	25.5	41.3	8.9	3.7	3.3	4.4	6.1	3.3	0.8	
AREA=	115.8	382.4	1963.4	524.0	676.2	804.3	568.1	807.1	832.3	237.1	
VEL=	5.0	19.0	6.0	4.8	1.6	1.4	2.2	2.1	1.1	0.9	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 100 year flood to Sta 12,850
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 1

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.009250	0.00	0.0	0.	2100.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO DEPTH CWSEL CRIWS WSELK EG HV HL OLOSS BANK ELEV
Q QLOB QCH QROB ALOB ACH AROB VOL TWA LEFT/RIGHT
TIME VLOB VCH VROB XNL XNCH XNR WTN ELMIN SSTA
SLOPE XLOBL XLCH XLOBR ITRIAL IDC ICONT CORAR TOPWID ENDST

*PROF 3

1490 NH CARD USED
*SECNO 1.000
1553 STARTING NC CARD OMITTED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9960.0 12850.0 TYPE= 1 TARGET= 2090.000

****
STA 8050 IS LOCATED ON MAP WITH TIC MARK
Q500 .0100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
EXPRESSWAY. 2.5' TALL MEDIAN BARRIER PREVENTS
BREAKOUT TO NORTH
****

1.00	11.46	2099.46	2099.46	2099.44	2100.47	1.01	0.00	0.00	2095.00
6700.	103.	3332.	3265.	45.	295.	1829.	0.	0.	2095.00
0.00	2.28	11.30	1.79	0.045	0.022	0.061	0.000	2088.00	9964.72
0.001682	0.	0.	0.	0	10	0	0.00	949.02	11236.55

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2099.46

STA=	9965.	9985.	10015.	10370.	10500.	10646.	11100.	11237.
PER Q=	1.5	49.7	35.5	3.1	0.6	4.0	5.4	
AREA=	45.2	294.9	927.2	144.5	106.9	277.2	372.9	
VEL=	2.3	11.3	2.6	1.5	0.4	1.0	1.0	

1
18-FEB-88 15:40:01 PAGE 7

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood to Sta 12,850
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 1

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.009250	0.00	0.0	0.	2100.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
18-FEB-88 15:40:01 PAGE 8

SECNO DEPTH CWSEL CRIWS WSELK EG HV HL OLOSS BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST	

*PROF 4

1490 NH CARD USED
*SECND 1.000
1553 STARTING NC CARD OMITTED
3280 CROSS SECTION 1.00 EXTENDED 1.26 FEET

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9960.0 12850.0 TYPE= 1 TARGET= 2890.000

****
STA 8050 IS LOCATED ON MAP WITH TIC MARK
9500,9100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
EXPRESSWAY. 2.5' TALL MEDIAN BARRIER PREVENTS
BREAKOUT TO NORTH
****

1.00	14.26	2102.26	2102.26	2099.44	2103.55	1.29	0.00	0.00	2095.00
28450.	530.	6828.	21092.	113.	379.	8320.	0.	0.	2095.00
0.00	4.70	18.02	2.54	0.045	0.022	0.074	0.000	2088.00	9960.00
0.003061	0.	0.	0.	0	12	0	0.00	2890.00	12850.00

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2102.26

STA=	9960.	9985.	10015.	10370.	10500.	10700.	11000.	11100.	11250.	11800.	12240.	12850.
PER Q=	1.9	24.0	38.1	8.1	3.4	3.4	4.1	5.6	3.6	3.3	4.6	
AREA=	112.9	378.9	1922.1	508.9	652.9	769.3	556.4	789.7	1005.4	886.3	1228.8	
VEL=	4.7	18.0	5.6	4.5	1.5	1.3	2.1	2.0	1.0	1.1	1.1	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 1
SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	1.000	0.00	0.00	0.00	2088.00	6700.00	2099.44	2099.44	2100.47	17.12	11.38	2149.89	1619.42
*	1.000	0.00	0.00	0.00	2088.00	28450.00	2102.38	2102.38	2103.93	33.57	18.98	6910.73	4910.48
*	1.000	0.00	0.00	0.00	2088.00	6700.00	2099.46	2099.46	2100.47	16.82	11.30	2168.76	1633.44
*	1.000	0.00	0.00	0.00	2088.00	28450.00	2102.26	2102.26	2103.55	30.61	18.02	8811.57	5141.92

Overflow X-Sec. 1
SUMMARY PRINTOUT TABLE 153

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.000	6700.00	2099.44	0.00	0.00	0.00	936.42	0.00
*	1.000	28450.00	2102.38	2.94	0.00	2.94	1840.00	0.00
*	1.000	6700.00	2099.46	-2.92	0.00	0.02	945.02	0.00
*	1.000	28450.00	2102.26	2.80	0.00	2.82	2890.00	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

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T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 1.39 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.045    0.045    0.045
JT       4      200      300      400      500
X1    1.39       13     1160     3283
X2                                                                                  15
X3                                                  3852   1731.0
GR1736.0      1160   1736.0     1160   1736.0     1160   1736.0     1160   1736.0     1160
GR1732.0      1580   1731.0     1650   1730.0     1720   1729.0     1800   1728.0     1870
GR1727.1      2000   1727.7     2687   1727.7     3283
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 1.39 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 1.39 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 1.39 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1


ER
EOF..
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218

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  26-DEC-87 TIME   18:04:54          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X            X     X
X      X  X         X                  X
XXXXXXX   XXXX      X          XXXXX    XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
```



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 ***********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ***********************************************

 T1         CCRFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 1.39 - Normal Depth

 J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.         2.         3.         0.   0.005000       0.00       0.0        0.       0.000      0.000
 J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
       1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
      150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

 NC        0.045      0.045      0.045      0.000      0.000      0.000      0.000      0.000      0.000      0.000
 OT        4.000    200.000    300.000    400.000    500.000      0.000      0.000      0.000      0.000      0.000
 X1        1.390     13.000   1160.000   3283.000      0.000      0.000      0.000      0.000      0.000      0.000
 X2        0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
 X3        0.000      0.000      0.000      0.000      0.000   3852.000   1731.000      0.000      0.000      0.000
 GR     1736.000   1160.000   1736.000   1160.000   1736.000   1160.000   1736.000   1160.000   1736.000   1160.000
 GR     1732.000   1580.000   1731.000   1650.000   1730.000   1720.000   1729.000   1830.000   1728.000   1870.000
 GR     1727.100   2000.000   1727.700   2687.000   1727.700   3283.000      0.000      0.000      0.000      0.000
 EJ        0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 1.390
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 1.39 EXTENDED 0.02 FEET

3470 ENCROACHMENT STATIONS= 0.0 3852.0 TYPE= 1 TARGET= 3851.999

1.39	0.62	1727.72	0.00	0.00	1727.73	0.01	0.00	0.00	1736.00
200.	0.	200.	0.	0.	261.	0.	0.	0.	1727.70
0.00	0.00	0.77	0.00	0.045	0.045	0.045	0.000	1727.19	1910.25
0.004905	0.	0.	0.	0	0	8	0.00	1372.75	3283.00

FLOW DISTRIBUTION FOR SECNO= 1.39 CWSEL= 1727.72

STA=	1910.	3283.
PER Q=	100.0	
AREA=	261.3	
VEL=	2.9	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 1.39 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 1.390
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 1.39 EXTENDED 0.07 FEET

```
3470 ENCROACHMENT STATIONS=        0.0     3852.0  TYPE=      1  TARGET=     3851.999
     1.39      0.67  1727.77       0.00      0.00  1727.79      0.01       0.00       0.00  1736.00
      300.        0.      300.        0.        0.      333.        0.        0.        0.  1727.70
     0.00      0.00      0.90       0.00     0.045     0.045     0.045     0.000   1727.10  1902.78
 0.004977        0.        0.        0.         0         0         8      0.00   1380.22  3283.00

 FLOW DISTRIBUTION FOR SECNO=      1.39          CWSEL=   1727.77

 STA=    1903.    3283.
   PER Q=   100.0
    AREA=   332.6
     VEL=     0.9
```



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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1        CORPUS CHRISTI OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 1.39 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       4.        0.        0.  0.005000       0.00      0.0        0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *PROF 3

 *SECNO 1.390
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
 3280 CROSS SECTION      1.39 EXTENDED      0.12 FEET

 3470 ENCROACHMENT STATIONS=        0.0     3852.0  TYPE=      1  TARGET=     3851.999
      1.39      0.72  1727.82       0.00      0.00  1727.83      0.02       0.00       0.00  1736.00
       400.        0.      400.        0.        0.      396.        0.        0.        0.  1727.70
      0.00      0.00      1.01       0.00     0.045     0.045     0.045     0.000   1727.10  1896.18
 0.004988        0.        0.        0.         0         0         8      0.00   1386.82  3283.00

 FLOW DISTRIBUTION FOR SECNO=      1.39          CWSEL=   1727.82

 STA=    1896.    3283.
   PER Q=   100.0
    AREA=   395.7
     VEL=     1.0
```

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1       CORFCD/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       Overflow Cross Section 1.39 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
     -10.       5.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.00)    0.000     -1.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*PROF 4

*SECNO 1.390
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION      1.39 EXTENDED      0.16 FEET

3470 ENCROACHMENT STATIONS=       0.0     3852.0  TYPE=     1  TARGET=     3851.999
     1.39      0.76   1727.86      0.00      0.00   1727.88      0.02      0.00      0.00   1736.00
      500.       0.      500.       0.        0.      453.        0.        0.        0.    1727.70
      0.00      0.00      1.10      0.00    0.045     0.045     0.045     0.000   1727.10   1890.24
 0.004999        0.        0.        0.        0         0         8      0.00   1392.76   3283.00
)
FLOW DISTRIBUTION FOR SECNO=      1.39          CWSEL=   1727.86

STA=    1890.     3283.
  PER Q=   100.0
  AREA=    452.9
   VEL=      1.1
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

NOTE= ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.390	0.00	0.00	0.00	1727.10	200.00	1727.72	0.00	1727.73	49.05	0.77	261.34	28.56
1.390	0.00	0.00	0.00	1727.10	300.00	1727.77	0.00	1727.79	49.77	0.90	332.58	42.52
1.390	0.00	0.00	0.00	1727.10	400.00	1727.82	0.00	1727.83	49.88	1.01	395.75	56.64
1.390	0.00	0.00	0.00	1727.10	500.00	1727.86	0.00	1727.88	49.99	1.10	452.91	70.72

1
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Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.390	200.00	1727.72	0.00	0.00	0.00	1372.75	0.00
1.390	300.00	1727.77	0.05	0.00	0.00	1380.22	0.00
1.390	400.00	1727.82	0.05	0.00	0.00	1386.82	0.00
1.390	500.00	1727.86	0.04	0.00	0.00	1392.76	0.00

1
26-DEC-87 18:04:54 PAGE 11

SUMMARY OF ERRORS AND SPECIAL NOTES

1
26-DEC-87 18:05:00 PAGE 1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

20

LVW

```
CC          4
CC        2.0  ************************************************
CC        2.0  STA 10015 IS LOCATED ON MAP WITH TIC MARK
CC        2.0  THIS FILE LOCATES THE 100-YEAR FLOOD BOUNDARY
CC        2.0  ************************************************
T1               Clark County, Nevada COE - 100 year flood
T2               James M. Montgomery Consulting Engineers, Inc.
T3                Overflow X-Sec. 2A
J1                    2                .00820                                  2060
J2          1                -1
J3        150
NC    0.045     0.100    0.100
QT          2    7375    31975
ET                7.1      7.1       7.1                      10070    12050
K1        2.0      10    10070    11450
K2                                                                          15.0
K4         12    2060    10530   2059.5    11820     2060    12020     2060    12140     2060
K4      12380    2060    12830   2060.2    12970     2060    13030   2059.1    13260     2060
K4      13680  2062.5    14630   2061.4    14950
GR       2060   10015     2063    10070     2060    10160     2058    10950     2058    11450
GR    2060.5   12050   2058.3    12520   2059.5    13440     2061    14200     2062    15250
EJ
T1               Clark County, Nevada COE - 500 year flood
T2               James M. Montgomery Consulting Engineers, Inc.
T3                Overflow X-Sec. 2A
J1                    3                0.00820                                 2060
J2         15                -1

ER
EOF..
```

21

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:41:40          *
 *************************************************
```

```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```

CVW

```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X         X     X            X     X
X     X  X         X                  X     X
XXXXXXX  XXXX      X          XXXXX    XXXXX
X     X  X         X                  X
X     X  X         X     X            X
X     X  XXXXXXX    XXXXX             XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************
```

```
C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 2A
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.008200	0.00	0.0	0.	2060.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.045	0.100	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	2.000	7375.000	31975.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	10070.000	12050.000	0.000	0.000

```
*************************************************
  STA 10015 IS LOCATED ON MAP WITH TIC MARK
  THIS FILE LOCATES THE 100-YEAR FLOOD BOUNDARY
*************************************************
```

X1	2.000	10.000	10070.000	11450.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X4	12.000	2060.000	10530.000	2059.500	11820.000	2060.000	12020.000	2060.000	12140.000	2060.000
X4	12380.000	2060.000	12880.000	2060.200	12970.000	2060.000	13030.000	2059.100	13260.000	2060.000
X4	13680.000	2062.500	14630.000	2061.400	14950.000	0.000	0.000	0.000	0.000	0.000

GR	2061.000	10015.000	2063.000	10070.000	2060.000	10150.000	2055.000	10950.000	2058.000	11450.000
GR	2060.500	12050.000	2058.300	12520.000	2059.500	13440.000	2061.000	14200.000	2062.000	15250.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

•PROF 1

*SECNO 2.000

3470 ENCROACHMENT STATIONS= 10070.0 12050.0 TYPE= 1 TARGET= 1980.000

****
STA 10015 IS LOCATED ON MAP WITH TIC MARK
THIS FILE LOCATES THE 100-YEAR FLOOD BOUNDARY
****

2.00	2.86	2060.86	0.00	0.00	2060.93	0.07	0.00	0.00	2063.00
7375.	0.	5306.	2069.	0.	2544.	1023.	0.	0.	2058.00
0.00	0.00	2.09	2.02	0.045	0.100	0.100	0.000	2058.00	10134.11
0.008175	0.	0.	0.	0	0	5	0.00	1915.89	12050.00

FLOW DISTRIBUTION FOR SECNO= 2.00 CWSEL= 2060.86

STA=	10134.	11450.	11820.	12020.	12050.
PER Q=	71.9	23.5	4.4	0.2	
AREA=	2544.5	781.8	222.6	18.4	
VEL=	2.1	2.2	1.4	1.0	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 2A

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.008200	0.00	0.0	0.	2060.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 2

*SECNO 2.000
3280 CROSS SECTION       2.00 EXTENDED       1.52 FEET

3470 ENCROACHMENT STATIONS=   10070.0   12050.0  TYPE=     1  TARGET=    1980.000
           **************************************************
           STA 10015 IS LOCATED ON MAP WITH TIC MARK
           THIS FILE LOCATES THE 100-YEAR FLOOD BOUNDARY
           **************************************************
     2.00       5.52  2063.52      0.00  2060.86  2063.73      0.21      0.00      0.00  2063.00
    31975.        0.    22469.      9506.       0.    6140.    2620.        0.        0.  2058.00
     0.00       0.00      3.65      3.63     0.045    0.100    0.100     0.000  2058.00 10070.00
 0.008252         0.        0.        0.         0        0        5      0.00  1980.00 12050.00

FLOW DISTRIBUTION FOR SECNO=      2.00          CWSEL=   2063.52

STA=   10070.    11450.    11820.    12020.    12050.
  PER Q=    70.3      21.1       7.7       0.9
   AREA=  6148.7   1766.5     754.9      98.2
    VEL=     3.7       3.9       3.3       2.8

1
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 ************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

      Overflow X-Sec. 2A
 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD      ELLC      ELMIN        Q        CWSEL     CRIWS      EG       10K*S     VCH      AREA      .01K
      2.000      0.00       0.00      0.00    2058.00   7375.00    2060.86      0.00    2060.93    81.75     2.09    3567.31   815.67
      2.000      0.00       0.00      0.00    2058.00  31975.00    2063.52      0.00    2063.73    82.52     3.65    8768.34  3519.94

1
 18-FEB-88    15:41:41                                                          PAGE     6

      Overflow X-Sec. 2A
 SUMMARY PRINTOUT TABLE  150

      SECNO        Q         CWSEL     DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH
      2.000     7375.00    2060.86      0.00      0.00      0.00    1915.89     0.00
      2.000    31975.00    2063.52      2.66      0.00      2.66    1980.00     0.00

1
 18-FEB-88    15:41:41                                                          PAGE     7
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SUMMARY OF ERRORS AND SPECIAL NOTES

1


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
     4
   2.0 ************************************************
   2.0 STA 10015 IS LOCATED ON MAP WITH TIC MARK
   2.0 THIS FILE LOCATES THE 500-YEAR BOUNDARY
   2.0 ************************************************
T1       Clark County, Nevada COE - 100 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 2B
J1           2                .00820                              2060
J2     1              -1
J3   150
NC 0.045   0.100    0.123
QT     2    7375    31975
ET          7.1      7.1      7.1      7.1            10070    15250
X1   2.0     10    10070    13440
X2                                                                  15.0
X4    12    2060    10530   2055.5    11820     2060   12020     2060   12140     2060
X4 12380    2060    12880   2060.2    12970     2060   13030   2059.1   13260     2060
X4 13680  2062.5    14630   2061.4    14950
GR  2060   10015     2063    10070     2060    10160     2058    10950     2058    11450
GR2060.5   12050   2058.3    12520   2059.5    13440     2061    14200     2062    15250
EJ
T1       Clark County, Nevada COE - 500 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 2B
J1           3                0.00820                             2060
J2    15             -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:43:09          *
 *************************************************
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```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X          XXXXX     XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX                XXXXXXX
```



```
 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 2B

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        2.        0.        0.  0.008200      0.00      0.0       0.  2060.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


NC       0.045     0.100     0.123     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT    2.000  7375.000 31975.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET       0.000     7.100     7.100     7.100     7.100     0.000 10070.000 15250.000     0.000     0.000
          ************************************************
          STA 10015 IS LOCATED ON MAP WITH TIC MARK
          THIS FILE LOCATES THE 500-YEAR BOUNDARY
          ************************************************
X1       2.000    10.000 10070.000 13440.000     0.000     0.000     0.000     0.000     0.000     0.000
X2       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
X4      12.000  2060.000 10530.000  2059.500 11820.000  2060.000 12020.000  2060.000 12140.000  2060.000
X4   12380.000  2060.000 12980.000  2060.200 12970.000  2060.000 13030.000  2059.100 13260.000  2060.000
X4   13680.000  2062.500 14630.000  2061.400 14950.000     0.000     0.000     0.000     0.000     0.000
```

GR	2060.000	10015.000	2063.000	10070.000	2060.000	10160.000	2058.000	10950.000	2058.000	11450.000
GR	2060.500	12050.000	2058.300	12520.000	2059.500	13440.000	2061.000	14200.000	2062.000	15250.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

•SECNO 2.000

3470 ENCROACHMENT STATIONS= 10073.0 15250.0 TYPE= 1 TARGET= 5180.000

****
STA 10015 IS LOCATED ON MAP WITH TIC MARK
THIS FILE LOCATES THE 500-YEAR BOUNDARY
****

2.00	2.72	2060.72	0.00	0.00	2060.75	0.33	0.00	0.00	2063.00
7375.	0.	6976.	399.	0.	4924.	370.	0.	0.	2059.50
0.00	0.00	1.42	1.09	0.045	0.123	0.100	0.000	2058.00	10138.28
0.008071	0.	0.	0.	0	0	5	0.00	3918.13	14056.42

FLOW DISTRIBUTION FOR SECNO= 2.00 CWSEL= 2060.72

STA=	10138.	13440.	13680.	14056.
PER Q=		94.6	4.2	1.3
AREA=		4924.1	233.7	136.2
VEL=		1.4	1.3	0.7

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 2B

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.008200	0.00	0.0	0.	2060.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
 *PROF 2

 *SECNO 2.000
 3280 CROSS SECTION       2.00 EXTENDED       0.57 FEET

 3470 ENCROACHMENT STATIONS=   10071.0   15250.0  TYPE=     1  TARGET=     5180.000
            **************************************************
            STA 10015 IS LOCATED ON MAP WITH TIC MARK
            THIS FILE LOCATES THE 500-YEAR BOUNDARY
            **************************************************
      2.00       4.57  2062.57       0.00  2060.72  2062.66       0.09      0.00      0.00  2063.00
     31975.        0.    26868.     5107.        0.   11072.     2565.        0.        0.  2059.50
      0.00       0.00      2.43      1.99     0.045    0.123     0.100     0.000  2058.00 10082.89
  0.008219         0.        0.        3.         0        0         5      0.00  5167.11 15250.00

 FLOW DISTRIBUTION FOR SECNO=      2.00          CWSEL=   2062.57

 STA=   10083.   13440.   13680.   14200.   14630.   14950.   15250.
   PER Q=     84.0      5.7      7.4      1.3      0.6      1.0
    AREA= 11071.6   676.9   1076.6    352.7    198.5    261.1
     VEL=      2.4      2.7      2.2      1.2      1.0      1.2

 1
  18-FEB-88    15:43:10                                                          PAGE     5


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

      Overflow X-Sec. 2B
 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD      ELLC      ELMIN      Q         CWSEL      CRIWS      EG        10K*S     VCH       AREA      .01K
      2.000      0.00       0.00      3.00    2058.00   7375.00   2060.72       0.00    2060.75    80.71     1.42    5293.99    820.94
      2.000      0.00       0.00      0.00    2058.00  31975.00   2062.57       0.00    2062.66    82.19     2.43   13637.41   3527.06

 1
  18-FEB-88    15:43:10                                                          PAGE     6

      Overflow X-Sec. 2B
 SUMMARY PRINTOUT TABLE  150

      SECNO      Q         CWSEL     DIFWSP    DIFWSX    DIFKWS    TOPWID    XLCH
      2.000   7375.00   2060.72       3.00      0.00      0.00   3916.13    0.00
      2.000  31975.00   2062.57       1.85      0.00      1.85   5167.11    0.00

 1
  18-FEB-88    15:43:10                                                          PAGE     7
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1
18-FEB-88 15:43:19

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
KK          3
     4.0    ****************************************************
     4.0    STA 2000 IS LOCATED ON MAP WITH TIC MARK
     4.0    ****************************************************
T1           Clark County, Nevada COE -100 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 4
J1              2                    .00595                              2039
J2     1                -1
J3   150
NH       2    0.06      3650        5     5260
ET         5.1       6.1                        2000      4040
QT       2  2500      7300
X1   4.0          7    2000      3650
X2                                                                              15.0
GR  2039     2000      2038      2400      2037      2800      2038      3650      2039      4180
GR  2040     5200      2050      5260
EJ
T1           Clark County, Nevada COE - 500 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 4
J1              3                    0.00595                             2039
J2     15               -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:44:07          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1          Clark County, Nevada COE -100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 4

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      0.         2.         3.         0.   0.005950       0.00       0.0        0.   2039.000       0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
    1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NH      2.000      0.060   3650.000      5.000   5260.000      0.000      0.000      0.000      0.000      0.000
ET      0.300      6.100      6.100      0.000      0.000   2000.000   4040.000      0.000      0.000      0.000
QT      2.300   2500.000   7300.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          ***************************************************
          STA 2000 IS LOCATED ON MAP WITH TIC MARK
          ***************************************************
X1      4.000      7.000   2000.000   3650.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   2039.000   2000.000   2038.000   2400.000   2037.000   2800.000   2038.000   3650.000   2039.000   4180.000
GR   2040.000   5200.000   2050.000   5260.000      0.000      0.000      0.000      0.000      0.000      0.000
EJ      0.300      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

1490 NH CARD USED
*SECNO 4.000
1553 STARTING NC CARD OMITTED

3470 ENCROACHMENT STATIONS= 2000.0 4040.0 TYPE= 1 TARGET= 2040.000

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

4.00	1.55	2038.55	0.00	0.00	2038.60	0.05	0.00	0.00	2039.00
2500.	0.	2499.	1.	0.	1369.	79.	0.	0.	2038.00
0.00	0.00	1.83	0.01	0.000	0.060	5.00	0.000	2037.00	2181.10
0.005968	0.	0.	0.	0	0	5	0.00	1758.94	3940.04

FLOW DISTRIBUTION FOR SECNO= 4.00 CWSEL= 2038.55

STA=	2181.	3650.	3940.
PER Q=	100.0	0.0	
AREA=	1368.9	79.3	
VEL=	1.8	0.0	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 4

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	G	WSEL	FQ
	0.	3.	0.	0.	0.005950	0.00	0.0	0.	2039.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

1490 NH CARD USED

1490 NH CARD USED
*SECNO 4.000
1553 STARTING NC CARD OMITTED

3470 ENCROACHMENT STATIONS= 2000.0 4040.0 TYPE= 1 TARGET= 2040.000

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

4.00	2.40	2039.40	0.00	2038.55	2039.51	0.11	0.00	0.00	2039.00	
7300.	0.	7291.	9.	0.	2730.	401.	0.	0.	2038.00	
0.00	0.00	2.67	0.02	0.000	0.060	5.000	0.000	2037.00	2000.00	
0.005944	0.	0.	0.		0	5	0.00	2040.00	4040.00	

FLOW DISTRIBUTION FOR SECNO= 4.00 CWSEL= 2039.40

STA=	2000.	3650.	4040.
PER Q=	99.9	0.1	
AREA=	2730.4	401.4	
VEL=	2.7	0.8	

1
18-FEB-88 15:44:08 PAGE 5

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 4
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.000	0.00	0.00	0.00	2037.00	2500.00	2038.55	0.00	2038.60	59.69	1.83	1448.28	323.58
4.000	0.00	0.00	0.00	2037.00	7300.00	2039.40	0.00	2039.51	59.44	2.67	3131.83	946.85

1
18-FEB-88 15:44:08 PAGE 6

Overflow X-Sec. 4
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.000	2500.00	2038.55	0.00	0.00	0.00	1758.94	0.00
4.000	7300.00	2039.40	0.85	0.00	0.85	2040.00	0.00

1
18-FEB-88 15:44:08 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1          Clark County, Nevaca COE - 25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 5A
J1              2                    .00530                                  2060
J2      1             -1
J3    150
NC  0.06    0.06    0.022
ST      4  1400     2000     6900    18000
ET         7.1      7.1      7.1        7.1          2000     2175
X1    5.0     12     2068     2106
X2                                                                          15.0
GR  2060    2000     2050     2020     2040     2068     2032     2078  2031.5    2080
GR  2032    2089     2040     2106     2042     2130  2042.9     2175    2042    2600
GR  2040    2900  2041.9     3150
EJ
T1          Clark County, Nevaca COE - 50  year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 5
J1              3                  0.00530                                   2060
J2      2             -1
T1          Clark County, Nevaca COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 5
J1              4                  0.00530                                   2060
J2      3             -1
T1          Clark County, Nevaca COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 2
J1              5                  0.00530                                   2060
J2     15             -1

ER
EOF..
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```
T1          Clark County, Nevada COE - 25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 6A
J1             2                .00790                                  2025
J2      1             -1
J3    150
NC  0.045   0.045   0.045
ST      4    1200     2200     6500    18000
ET           7.1      7.1      7.1      7.1          2000    3230
X1    6.0     13     2110    2270.
X2                                                                      15.0
GR    2061   2000     2025     2110     2021     2270     2025    2660  2025.5  3230
GR2024.5     4040  2025.5     4700     2025     5400     2025    5850  2023.3  6400
GR2022.5     6880     2024     7380     2026     7900
EJ
T1          Clark County, Nevada COE - 50  year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 6A
J1             3                0.00790                                 2025
J2      2             -1
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 6A
J1             4                0.00790                                 2025
J2      3             -1
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 6A
J1             5                0.00790                                 2025
J2     15             -1

ER
EOF..
```

```
SCHEMATIC
      3
    7.0  ************************************************
    7.0  STA 1100 IS LOCATED ON MAP WITH TIC MARK
    7.0  ************************************************
T1          Clark County, Nevada COE - 100 & 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 7
J1             2                  .006                              2020
J2     1            -1
J3   150
NC 0.120   0.120   0.120
BT     2   1500   12000
ET       6.1      8.1                      1500     3760     1500     5200
X1     7     7     2750     2970
X4     3  2030     2000     2032     4220     2033     4710
GR2032.3  1100  2030.7     2420     2031     2750     2031     2970     2032     3270
GR  2032  3760     2033     5200
EJ
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charlston  Overflow X-Sec. 7
J1             3                  0.006                             2020
J2    15            -1


ER

EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:44:29          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
*************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
 ERROR CORR -  01,02,03,04,05
 MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1          Clark County, Nevada COE - 100 & 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 7

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.006000      0.00      0.0       0.  2020.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.120     0.120     0.120     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      2.000  1500.000 12000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     6.100     8.100     0.000     0.000  1500.000  3760.000  1500.000  5200.000     0.000
          *************************************************
          STA 1100 IS LOCATED ON MAP WITH TIC MARK
          *************************************************
X1      7.000     7.000  2750.000  2970.000     0.000     0.000     0.000     0.000     0.000     0.000
X4      3.000  2030.000  2000.000  2032.000  4220.000  2033.000  4710.000     0.000     0.000     0.000
GR 2032.300  1100.000  2030.700  2420.000  2031.000  2750.000  2031.000  2970.000  2032.000  3270.000
GR 2032.300  3760.000  2033.000  5200.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 7.000

3470 ENCROACHMENT STATIONS= 1500.0 3760.0 TYPE= 1 TARGET= 2260.000

****
STA 1100 IS LOCATED ON MAP WITH TIC MARK
****

7.00	1.66	2031.66	0.00	0.00	2031.68	0.02	0.00	0.00	2031.00
1500.	1363.	107.	31.	1334.	146.	66.	0.	0.	2031.00
0.00	1.02	0.73	0.45	0.120	0.120	0.120	0.000	2030.00	1500.00
0.006018	0.	0.	0.	0	0	6	0.00	1669.37	3169.37

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Charlston Overflow X-Sec. 7

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.006000	0.00	0.0	0.	2020.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 7.000
3280 CROSS SECTION 7.00 EXTENDED 0.56 FEET

3470 ENCROACHMENT STATIONS= 1500.0 5200.0 TYPE= 1 TARGET= 3700.000

****
STA 1100 IS LOCATED ON MAP WITH TIC MARK
****

7.00	3.56	2033.56	0.00	2031.66	2033.61	0.05	0.00	0.00	2031.00

12000.	7586.	1515.	3596.	3705.	563.	2857.	N.	N.	2031.00
0.00	1.99	1.81	1.24	0.120	0.120	0.120	0.000	2030.00	1500.00
0.006074	0.	0.	0.	0	0	5	0.00	3700.00	5200.00

1

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Charleston Overflow

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7.000	0.00	0.00	0.00	2030.00	1500.00	2031.66	0.00	2031.68	60.18	0.73	1546.19	193.35
7.000	0.00	0.00	0.00	2030.00	12000.00	2033.56	0.00	2033.61	60.74	1.81	7164.79	1539.75

1

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Charleston Overflow

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.000	1500.00	2031.66	0.00	0.00	0.00	1669.37	0.00
7.000	12000.00	2033.56	1.90	0.00	1.90	3700.00	0.00

1

18-FEB-88 15:44:30 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

1

18-FEB-88 15:44:38 PAGE 1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

```
     3
   8.0  ************************************************
   8.0  STA 1670 IS LOCATED ON MAP WITH TIC MARK
   8.0  ************************************************
T1       Clark County, Nevaca COE -  25 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3       Overflow X-Sec. 9
J1          2                0.0098                                  2000
J2     1         -1
J3   150
NC 0.123 0.123    0.123
QT     4   700     1000     3200     9500
ET         6.1      6.1      6.1             1670     3700
X1     8    10     2290     3460
X2                                                                          15.0
X3    10
GR  2007    1670     2009     2290     2007     2670   2007.5     2900   2007.3     3460
GR  2008    3660     2009     3700   2008.5     3820     2008     4170     2010     4680
EJ
T1       Clark County, Nevaca COE -  50 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3       Overflow X-Sec. 9
J1          3                0.0098                                  2000
J2     2         -1
T1       Clark County, Nevada COE - 100 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3       Overflow X-Sec. 9
J1          4                0.0098                                  2000
J2     3         -1
T1       Clark County, Nevaca COE - 500 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3       Overflow X-Sec. 9
J1          5                0.0098                                  2000
J2    15         -1


ER
EOF..
```

74

U.S. ARMY CORPS OF ENGINEERS
THE HYDROLOGIC ENGINEERING CENTER
609 SECOND STREET, SUITE D
DAVIS, CALIFORNIA 95616
(916) 440-2105 (FTS) 448-2105

1
WATER SURFACE PROFILES
VERSION OF NOVEMBER 1976
UPDATED AUGUST 1983

RUN DATE 18-FEB-88 TIME 15:44:53

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

1
18-FEB-88 15:44:54

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

```
C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 8
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.009800	0.00	0.0	0.	2000.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.123	0.123	0.123	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	700.000	1000.000	3200.000	9500.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	1670.000	3700.000	0.000	0.000	0.000

STA 1679 IS LOCATED ON MAP WITH TIC MARK

X1	8.000	10.000	2250.000	3460.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	2007.000	1670.000	2009.000	2290.000	2007.000	2670.000	2007.500	2900.000	2007.300	3460.000
GR	2008.000	3660.000	2009.000	3700.000	2008.500	3820.000	2008.000	4170.000	2010.000	4680.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

-SECNO 8.000

3470 ENCROACHMENT STATIONS= 1670.0 3700.0 TYPE= 1 TARGET= 2030.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2009.00 ELREA= 2007.30

****
STA 1670 IS LOCATED ON MAP WITH TIC MARK
****

8.00	1.08	2008.08	0.03	0.00	2008.10	0.01	0.00	0.00	2009.00
700.	0.	640.	60.	0.	687.	87.	0.	0.	2007.30
0.00	0.00	0.93	0.58	0.123	0.123	0.123	0.000	2007.00	2463.86
0.009750	0.	0.	0.	0	0	5	0.00	1199.54	3663.40

FLOW DISTRIBUTION FOR SECNO= 8.00 CWSEL= 2008.08

STA=	2464.	3460.	3660.	3663.
PER Q=	91.5	8.5	0.0	
AREA=	687.4	87.0	0.1	
VEL=	0.9	0.7	0.1	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 8

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.009800	0.00	0.0	0.	2000.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
 *PROF 2

 *SECNO 8.000

 3470 ENCROACHMENT STATIONS=     1670.0     3700.0  TYPE=      1  TARGET=     2030.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      2009.00 ELREA=      2007.30

            **************************************************
            STA 1670 IS LOCATED ON MAP WITH TIC MARK
            **************************************************
      8.00       1.25  2008.25       0.00  2008.08  2008.26       0.02       0.00       0.00  2009.00
   1000.          0.      858.        102.       0.      851.        121.          0.          0.  2007.30
      0.00       0.00       1.06       0.84     0.123     0.123     0.123     0.000  2007.00  2433.13
 0.009809          0.         0.         0.         0         0         6      0.00  1236.74  3669.87

 FLOW DISTRIBUTION FOR SECNO=       8.00          CWSEL=   2008.25

 STA=     2433.     3460.     3660.     3670.
   PER Q=     89.8      10.1       0.0
    AREA=    851.0     119.3       1.2
     VEL=      1.1       0.8       0.3

1
  18-FEB-88     15:44:54                                                                  PAGE     5


  ***********************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ***********************************************

 T1          Clark County, Nevada COE - 100 year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Overflow X-Sec. 8

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ

        0.        4.        0.        0.  0.009800      0.00      0.0         0.  2000.000      0.000

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  18-FEB-88     15:44:54                                                                  PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
       Q      QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *PROF 3

 *SECNO 8.000
 7230 SLOPE-AREA TRIALS EXCEED 100

 3470 ENCROACHMENT STATIONS=     1670.0     3700.0  TYPE=      1  TARGET=     2030.000

            **************************************************
            STA 1670 IS LOCATED ON MAP WITH TIC MARK
            **************************************************
      8.00       2.00  2009.00       0.00  2008.08  2009.02       0.02       0.00       0.00  2009.00
```

3200.	640.	2207.	354.	620.	1679.	290.	0.	0.	2007.30	
0.00	1.03	1.31	1.22	0.123	0.123	0.123	0.000	2007.00	1670.00	
0.007397	0.	0.	0.	0	0	101	0.00	2030.00	3700.00	

FLOW DISTRIBUTION FOR SECNO= 8.00 CWSEL= 2009.00

STA=	1670.	2290.	3460.	3660.	3700.
PER Q=	20.0	69.0	10.7	0.4	
AREA=	620.4	1679.2	270.1	20.0	
VEL=	1.0	1.3	1.3	0.7	


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 8
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.009800	0.00	0.0	0.	2000.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

*SECNO 8.000
3280 CROSS SECTION 8.00 EXTENDED 2.77 FEET

```
**************************************************
STA 1670 IS LOCATED ON MAP WITH TIC MARK
**************************************************
```

8.00	2.77	2009.77	0.00	2000.00	2009.82	0.05	0.00	0.00	2009.00
9500.	1919.	5240.	2341.	1095.	2575.	1525.	0.	0.	2007.30
0.00	1.75	2.03	1.54	0.123	0.123	0.123	0.000	2007.00	1670.00
0.009904	0.	0.	0.	0	0	4	0.00	2950.48	4620.48

FLOW DISTRIBUTION FOR SECNO= 8.00 CWSEL= 2009.77

STA=	1670.	2290.	3460.	3660.	3700.	3820.	4170.	4620.
PER Q=	20.2	55.2	8.8	0.8	1.6	8.9	4.6	
AREA=	1095.3	2575.4	423.3	50.7	122.0	530.8	397.9	
VEL=	1.8	2.0	2.8	1.4	1.2	1.6	1.1	

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

     Overflow X-Sec. 8
SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD      ELLC       ELMIN       Q         CWSEL      CRIWS      EG         10K*S      VCH       AREA       .01K
      8.000      0.00      0.00       0.00      2007.00     700.00    2008.08     0.00      2008.10     97.50      0.93      774.57     70.89
      8.000      0.00      0.00       0.00      2007.00    1000.00    2008.25     0.00      2008.26     98.09      1.06      971.58    100.97
      8.000      0.00      0.00       0.00      2007.00    3200.00    2009.00     0.00      2009.02     73.07      1.31     2589.72    374.34
      8.000      0.00      0.00       0.00      2007.00    9500.00    2009.77     0.00      2009.82     99.04      2.03     5195.40    954.60

1
  18-FEB-88    15:44:54                                                                                                  PAGE   10

     Overflow X-Sec. 8
SUMMARY PRINTOUT TABLE  150

      SECNO       Q         CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
      8.000      700.00    2008.08      0.00       0.00       0.00     1199.54     0.00
      8.000     1000.00    2008.25      0.16       0.00       0.16     1236.74     0.00
      8.000     3200.00    2009.00      0.75       0.00       0.72     2030.00     0.00
      8.000     9500.00    2009.77      0.77       0.00       0.77     2950.46     0.00

1
  18-FEB-88    15:44:54                                                                                                  PAGE   11


  SUMMARY OF ERRORS AND SPECIAL NOTES

1
  18-FEB-88    15:45:04                                                                                                  PAGE    1


**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

```
      3
    9.0
    9.0  ************************************************
    9.0  STA 730 IS LOCATED ON MAP WITH TIC MARK
    9.0  ************************************************
T1        Clark County, Nevada COE -  25 year flood
T2        James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 9
J1           2                    0.0138                              2000
J2     1              -1
J3   150
NC 0.120  0.120   0.120
ET     4    500     1200     3300    12500
K1     9      9     2520     3070
K4     7   2005     2150   2001.6     2360   2001.8     2700   2002.2     2780   2003.1
K4  2910   2005     3180     2005     3360
GR  2010    730     2008      830   2006.7     1275     2005     1430     2006     1830
GR  2006   2000   2001.0     2520     2003     3070     2006     3650
EJ
T1        Clark County, Nevada COE -  50 year flood
T2        James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 9
J1           3                    0.0138                              2000
J2     2              -1
T1        Clark County, Nevada COE - 100 year flood
T2        James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 9
J1           4                    0.0138                              2000
J2     3              -1
T1        Clark County, Nevada COE - 500 year flood
T2        James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 9
J1           5                    0.0138                              2000
J2    15              -1

ER

EOF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:45:18          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************
```

```
C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 9

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.        2.         0.         0.   0.013800       0.00       0.0        0.   2000.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC       0.120      0.120      0.120      0.080      0.000      0.000      0.000      0.000      0.000      0.000
QT       4.000    500.000   1200.000   3300.000  12500.000      0.000      0.000      0.000      0.000      0.000
         ***************************************************
         STA 730 IS LOCATED ON MAP WITH TIC MARK
         ***************************************************
X1       9.000      9.000   2520.000   3070.000      0.000      0.000      0.000      0.000      0.000      0.000
X4       7.000   2005.000   2150.000   2001.600   2360.000   2001.800   2700.000   2002.200   2780.000   2003.100
X4    2910.000   2005.000   3180.000   2005.000   3360.000      0.000      0.000      0.000      0.000      0.000
GR    2010.000    730.000   2008.000    830.000   2006.700   1275.000   2005.000   1430.000   2006.000   1830.000
GR    2006.000   2000.000   2001.000   2520.000   2003.000   3070.000   2006.000   3650.000      0.000      0.000
EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 9.000

STA 730 IS LOCATED ON MAP WITH TIC MARK

9.00	1.35	2002.35	0.00	2000.00	2002.38	0.03	0.00	0.00	2001.00
500.	266.	234.	0.	196.	201.	0.	0.	0.	2003.00
0.00	1.44	1.16	0.00	0.120	0.120	0.120	0.000	2001.00	2313.60
0.013831	0.	0.	0.	0	0	6	0.00	488.24	2801.85

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 9

	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
J1	0.	3.	0.	0.	0.013800	0.00	0.0	0.	2000.000	0.000

	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
J2	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 9.000

STA 730 IS LOCATED ON MAP WITH TIC MARK

9.00	1.95	2002.95	0.00	2000.00	2002.99	0.05	0.00	0.00	2001.00
1200.	598.	602.	0.	320.	395.	0.	0.	0.	2003.00
0.00	1.87	1.53	0.00	0.120	0.120	0.120	0.000	2001.00	2276.79
0.013826	0.	0.	0.	0	0	6	0.00	611.16	2887.54

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 9

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q          WSEL      FQ

       0.        4.        0.        0.   0.013800       0.00      0.0       0.   2000.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV      XSECH      FN        ALLDC     IBW        CHNIM     ITRACE

     3.000      0.000    -1.000     0.000      0.000     0.000     0.000     0.000      0.000     0.000
1
 18-FEB-88    15:45:19                                                                    PAGE     6

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROP      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 3

*SECNO 9.000
          **********************************************
          STA 730 IS LOCATED ON MAP WITH TIC MARK
          **********************************************
     9.00      2.92   2003.92      0.00   2000.00   2003.99      0.08      0.00      0.00   2001.00
     3300.     1425.     1955.      20.      585.      910.      23.        0.        0.    2003.00
     0.00      2.44      2.04      0.87     0.120     0.120     0.120     0.000  2001.00   2216.94
 0.013829       0.        0.        0.         0         0         4      0.00    903.64   3120.48
1
 18-FEB-88    15:45:19                                                                    PAGE     7


**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 9

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q          WSEL      FQ

       0.        5.        0.        0.   0.013800       0.00      0.0       0.   2000.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV      XSECH      FN        ALLDC     IBW        CHNIM     ITRACE

    15.000      0.000    -1.000     0.000      0.000     0.000     0.000     0.000      0.000     0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

*SECNO 9.000

3265 DIVIDED FLOW

****
STA 730 IS LOCATED ON MAP WITH TIC MARK
****

9.00	4.92	2005.92	0.00	2000.00	2006.08	0.16	0.00	0.00	2001.00
12500.	4741.	6960.	809.	1560.	2011.	459.	0.	0.	2003.00
0.00	3.04	3.46	1.52	0.120	0.120	0.120	0.000	2001.00	1346.14
0.013818	0.	0.	0.	0	0	8	0.00	2066.38	3626.71

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 9

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
9.000	0.00	0.00	0.00	2001.00	500.00	2002.35	0.00	2002.38	138.31	1.16	386.57	42.52
9.000	0.00	0.00	0.00	2001.00	1200.00	2002.95	0.00	2002.99	138.26	1.53	714.22	102.06
9.000	0.00	0.00	0.00	2001.00	3300.00	2003.92	0.00	2003.99	138.29	2.04	1518.23	280.62
9.000	0.00	0.00	0.00	2001.00	12500.00	2005.92	0.00	2006.08	138.18	3.46	4071.08	1063.38

Overflow X-Sec. 9

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.000	500.00	2002.35	0.00	0.00	2.35	488.24	0.00
9.000	1200.00	2002.95	0.60	0.00	2.95	611.16	0.00
9.000	3300.00	2003.92	0.97	0.00	3.92	903.64	0.00
9.000	12500.00	2005.92	2.00	0.00	5.92	2066.38	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1           Clark County, Nevada COE -  25 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 10
J1               2                    0.0568                                  1950
J2      1                -1
J3    150
NC 0.120    0.120    0.120
QT      4      500     1200     3300    13500
X1     10       10     2790     2980
X2                                                                          15.0
X4      6     1950     2330   1948.9     2500     1945     2880     1940     3000  1941.3
X4   3230     1940     3470
GR   1950     2000     1949     2370     1945     2590     1944     2790     1945     2980
GR   1940     3100   1942.5     3350     1940     3510     1945     3520     1950     3700
EJ
T1           Clark County, Nevada COE -  50 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 10
J1               3                    0.0568                                  1950
J2      2                -1
T1           Clark County, Nevada COE - 100 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 10
J1               4                    0.0568                                  1950
J2      3                -1
T1           Clark County, Nevada COE - 500 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 10
J1               5                    0.0568                                  1950
J2     15                -1

ER
EOF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:45:45          *
 *************************************************
```


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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X        X     X            X     X
X      X  X        X                  X
XXXXXXXX  XXXX     X          XXXXX    XXXXX
X      X  X        X                  X
X      X  X        X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
```



```
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1          Clark County, Nevada COE -  25 year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Overflow X-Sec. 10

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        0.        0.  0.056800      0.00      0.0       0.  1950.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 NC       0.120     0.120     0.120     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 QT       4.000   500.000  1200.000  3300.000 13500.000     0.000     0.000     0.000     0.000     0.000
 X1      10.000    10.000  2750.000  2980.000     0.000     0.000     0.000     0.000     0.000     0.000
 X2       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
 X4       6.000  1950.000  2330.000  1948.000  2500.000  1945.000  2680.000  1940.000  3000.000  1941.300
 X4    3230.000  1940.000  3470.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 GR    1950.000  2000.000  1949.000  2370.000  1945.000  2590.000  1944.000  2790.000  1945.000  2980.000
 GR    1940.000  3100.000  1942.500  3350.000  1940.000  3510.000  1945.000  3520.000  1950.000  3700.000
 EJ       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
  18-FEB-88     15:45:45                                        PAGE     2
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV	
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*PROF 1

*SECNO 10.000

3265 DIVIDED FLOW

10.00	0.95	1940.95	0.00	1950.00	1941.04	0.10	0.00	0.00	1944.00
500.	0.	0.	500.	0.	0.	201.	0.	0.	1945.00
0.00	0.00	0.00	2.49	0.120	0.120	0.120	0.000	1940.00	2996.21
0.056692	0.	0.	0.	0	0	10	0.00	285.76	3511.89

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSEL= 1940.95

STA=	2996.	2980.	3000.	3100.	3195.	3470.	3510.	3512.
PER Q=	0.8	2.6	53.8	16.0	7.7	21.5	0.3	
AREA=	0.0	1.8	94.7	44.8	21.5	37.9	0.9	
VEL=	0.0	1.8	2.8	1.8	1.8	2.8	1.7	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 10

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.056800	0.00	0.0	0.	1950.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV	
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*PROF 2

*SECNO 10.000

3265 DIVIDED FLOW

10.00	1.47	1941.47	0.00	1950.00	1941.63	0.16	0.00	0.00	1944.00
1200.	0.	0.	1200.	0.	0.	372.	0.	0.	1945.00
0.00	0.00	0.00	3.22	0.120	0.120	0.120	0.000	1940.00	2994.12

0.056681	0.	0.	0.	0	9	0.00	366.37	3512.94	

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSEL= 1941.47

STA=	2994.	2980.	3000.	3100.	3230.	3247.	3470.	3510.	3513.
PER Q=	0.0	0.8	46.7	22.9	0.1	10.4	18.7	0.4	
AREA=	0.0	4.3	147.0	106.6	1.4	51.9	58.8	2.2	
VEL=	0.0	2.4	3.8	2.6	0.6	2.4	3.8	2.2	


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada CDE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 10
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.056800	0.00	0.0	0.	1950.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 3
*SECNO 10.000
3265 DIVIDED FLOW
```

10.00	2.37	1942.37	0.00	1950.00	1942.66	0.29	0.00	0.00	1944.00
3300.	0.	0.	3300.	0.	0.	765.	0.	0.	1945.00
0.00	0.00	0.00	4.31	0.120	0.120	0.120	0.000	1940.00	2990.51
0.056717	0.	0.	0.	0	0	8	0.00	505.19	3514.74

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSEL= 1942.37

STA=	2991.	2980.	3000.	3100.	3230.	3337.	3470.	3510.	3515.
PER Q=	0.0	1.1	37.7	28.7	3.4	13.5	15.1	0.5	
AREA=	0.0	11.2	237.1	223.8	57.4	135.0	94.9	5.6	
VEL=	0.0	3.2	5.2	4.2	1.9	3.3	5.2	3.1	

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 10

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      G          WSEL       FQ
       0.        5.         2.         0.   0.056800       0.00       0.0        0.   1950.000       0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROP       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XAL        XNCH       XNP        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST

*PROF 4

*SECNO 10.000

3265 DIVIDED FLOW

    10.00       4.54    1944.54       0.00    1950.00    1945.30       0.76       0.00       0.00    1944.00
   13500.        36.         16.    13448.         29.        13.    1914.         0.          0.    1945.00
     0.00       1.23       1.23       7.03      0.120      0.120      0.120      0.000    1940.00    2682.21
 0.056407         0.         0.         0.          0          0          6       0.00     693.53    3519.08

FLOW DISTRIBUTION FOR SECNO=     10.00          CWSEL=   1944.54

STA=     2682.     2790.     2980.     3000.     3100.     3230.     3350.     3470.     3510.     3519.
  PER Q=      0.3       0.1       1.5      27.1      27.2      13.2      19.0      10.8       0.7
  AREA=      29.0      13.1      41.2     453.9     505.6     316.7     394.7     181.6      20.6
   VEL=       1.2       1.2       5.1       8.1       7.3       5.6       6.5       8.1       4.7

1
 18-FEB-88    15:45:45                                                                          PAGE     9

**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

    Overflow X-Sec. 10

SUMMARY PRINTOUT TABLE  150
```

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10.000	0.00	0.00	0.00	1940.00	500.00	1940.95	0.00	1941.04	566.92	0.00	201.50	21.00
10.000	0.00	0.00	0.00	1940.00	1200.00	1941.47	0.00	1941.63	566.81	0.00	372.17	50.40
10.000	0.00	0.00	0.00	1940.00	3300.00	1942.37	0.00	1942.66	567.17	0.00	764.97	138.57
10.000	0.00	0.00	0.00	1940.00	13500.00	1944.54	0.00	1945.30	564.07	1.23	1956.26	568.41

Overflow X-Sec. 10

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.000	500.00	1940.95	0.00	0.00	-9.05	285.76	0.00
10.000	1200.00	1941.47	0.52	0.00	-8.53	366.37	0.00
10.000	3300.00	1942.37	0.90	0.00	-7.63	505.19	0.00
10.000	13500.00	1944.54	2.17	0.00	-5.46	693.53	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.16 - Normal Depth
J1       0        2                    0.0050
J2       1                -1
J3     150
NC 0.050   0.060    0.050      0.1       0.3
QT       4    3200     5900    10200     32000
X1 10.16      10     2968     3068
X2                                                                        15
GR1745.8     2000  1744.4     2110  1743.2     2161  1740.3     2193  1740.3     2224
GR1744.8     2268  1744.0     2968  1743.5     3018  1744.0     3068  1748.0     5000
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.16 - Normal Depth
J1     -10        3                    0.0050
J2       2                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.16 - Normal Depth
J1     -10        4                    0.0050
J2       3                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.16 - Normal Depth
J1     -10        5                    0.0050
J2      15                -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:08:27          *
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 13.16 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.005000       0.00      0.0       0.     0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.350      0.060      0.050      0.100      0.300      0.000      0.000      0.000      0.000      0.000
QT      4.000   3200.000   5900.000  10200.000  32000.000      0.000      0.000      0.000      0.000      0.000
X1     10.160     10.000   2968.000   3068.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.300      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   1745.300   2000.000   1744.400   2110.000   1743.200   2161.000   1740.300   2193.000   1740.300   2224.000
GR   1744.800   2268.000   1744.000   2968.000   1743.500   3018.000   1744.000   3068.000   1748.000   5000.000
EJ      0.300      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 10.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.16	4.72	1745.02	0.00	0.00	1745.15	0.12	0.00	0.00	1744.00
3200.	2602.	315.	283.	874.	127.	253.	0.	0.	1744.00
0.00	2.98	2.47	1.12	0.050	0.050	0.060	0.000	1740.30	2061.05
0.005008	0.	0.	0.	0	0	4	0.00	1501.10	3562.14

FLOW DISTRIBUTION FOR SECNO= 10.16 CWSEL= 1745.02

STA=	2051.	2110.	2161.	2193.	2224.	2268.	2568.	3068.	3562.
PER Q=	0.5	4.7	15.1	27.1	13.0	20.9	9.8	8.9	
AREA=	15.2	62.4	104.7	146.4	108.8	436.1	127.3	252.7	
VEL=	1.0	2.4	4.6	5.9	3.8	1.5	2.5	1.1	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.16 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 10.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.16	5.26	1745.56	0.00	0.00	1745.71	0.14	0.00	0.00	1744.00
5900.	4465.	564.	871.	1374.	181.	589.	0.	0.	1744.00
0.00	3.25	3.11	1.48	0.050	0.050	0.060	0.000	1740.39	2018.73
0.004965	0.	0.	0.	0	0	6	0.00	1803.54	3822.27

FLOW DISTRIBUTION FOR SECNO= 10.16 CWSEL= 1745.56

STA=	2019.	2110.	2161.	2193.	2224.	2268.	2968.	3068.	3822.
PER Q=	1.3	4.7	10.5	17.5	9.9	31.8	6.6	14.8	
AREA=	53.0	89.8	122.0	163.1	132.5	813.1	181.2	588.9	
VEL=	1.5	3.1	5.1	6.3	4.4	2.3	3.1	1.5	


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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CCRECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.16 - Normal Depth
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*PROF 3

CCHV=   0.100  CEHV=   0.300
*SECNO 10.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION      10.16 EXTENDED      0.34 FEET

    10.16      5.84  1746.14      0.00      0.00  1746.33      0.19      0.00      0.00  1744.00
 10200.      7249.      905.     2046.     1935.      239.     1109.        0.        0.   1744.00
     0.00      3.75      3.78      1.84     0.050     0.050     0.060     0.000  1740.30  2000.00
 0.005057        0.        0.        0.         0         0         7      0.00  2103.28  4103.28
)
FLOW DISTRIBUTION FOR SECNO=     10.16          CWSEL=   1746.14

STA=    2000.     2110.     2161.     2193.     2224.     2268.     2968.     3068.     4103.
  PER Q=      2.4       4.4       7.8      12.2       7.7      36.6       8.9      20.1
    AREA=   114.8     119.5     140.5     181.1     158.1    1220.4     239.3    1109.5
     VEL=      2.2       3.7       5.7       6.9       4.9       3.1       3.8       1.8
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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
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MODIFICATION - 50,51,52,53,54,55
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T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.16 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 10.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 10.16 EXTENDED 2.14 FEET

10.16	7.64	1747.94	0.00	0.00	1748.27	0.33	0.00	0.00	1744.00	
32000.	19392.	2288.	10320.	3675.	419.	3753.	0.	0.	1744.00	
0.00	5.28	5.46	2.75	0.050	0.050	0.060	0.000	1740.30	2000.00	
0.004989	0.	0.	0.	0	0	9	0.00	2971.94	4971.94	

FLOW DISTRIBUTION FOR SECNO= 10.16 CWSEL= 1747.94

STA=	2000.	2110.	2161.	2193.	2224.	2268.	2568.	3068.	4972.
PER Q=	4.1	3.6	4.4	6.0	4.8	37.8	7.1	32.2	
AREA=	312.6	211.2	198.1	236.9	237.2	2479.3	419.2	3752.6	
VEL=	4.2	5.4	7.1	8.1	6.4	4.9	5.5	2.8	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K

10.150	0.00	0.00	0.00	1740.30	3200.00	1745.02	0.00	1745.15	50.08	2.47	1253.77	452.18
10.150	0.00	0.00	0.00	1740.30	5900.00	1745.56	0.00	1745.71	49.65	3.11	2143.65	837.36
10.150	0.00	0.00	0.00	1740.30	10200.00	1746.14	0.00	1746.33	50.57	3.78	3283.31	1434.40
10.150	0.00	0.00	0.00	1740.30	32000.00	1747.94	0.00	1748.27	49.89	5.46	7847.17	4530.27

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.150	3200.00	1745.02	0.00	0.00	0.00	1501.10	0.00
10.150	5900.00	1745.56	0.54	0.00	0.00	1803.54	0.00
10.150	10200.00	1746.14	0.58	0.00	0.00	2103.28	0.00
10.150	32000.00	1747.94	1.80	0.00	0.00	2971.94	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 102 - Normal Depth
J1       0         2                    10.2 0.3046
J2       1                  -1
J3     150
NC 0.050    0.060    0.100      0.1      0.3
NT       4    1000     2100     4200    15600
X1 102.0         5     3200     4650
X2                                                          15
GR1790.5     2050   1788.0     3200   1786.9     3950   1788.0     4650   1792.0     5250
EJ
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 102 - Normal Depth
J1     -10         3                    0.3046
J2       2                  -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 102 - Normal Depth
J1     -10         4                    0.3046
J2       3                  -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 102 - Normal Depth
J1     -10         5                    0.3046
J2      15                  -1


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OF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   10:58:21          *
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXX   XXXX      X           XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 112 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.004600      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.050      0.060      0.100      0.100      0.300      0.000      0.000      0.000      0.000      0.000
QT      4.000   1000.000   2100.000   4200.000  16600.000      0.000      0.000      0.000      0.000      0.000
X1    102.000      5.000   3200.000   4650.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   1790.500   2050.000   1788.000   3200.000   1786.800   3950.000   1766.000   4650.000   1792.000   5250.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
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SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 102.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

102.00	1.34	1788.24	0.00	0.00	1788.25	0.01	0.00	0.00	1788.00
1000.	7.	992.	2.	13.	1147.	4.	0.	0.	1788.00
0.00	0.49	0.86	0.41	0.050	0.100	0.060	0.000	1786.90	3089.16
0.004629	0.	0.	0.	0	0	5	0.00	1596.99	4686.15

FLOW DISTRIBUTION FOR SECNO= 102.00 CWSEL= 1788.24

STA=	3089.	3200.	4650.	4686.
PER Q=	0.7	99.2	0.2	
AREA=	13.4	1146.8	4.4	
VEL=	0.5	0.9	0.4	

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 132 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.004600	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROP	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 102.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

102.00	1.75	1788.65	0.00	0.00	1788.67	0.02	0.00	0.00	1788.00
2100.	93.	1982.	25.	97.	1741.	32.	0.	0.	1788.00
0.00	0.95	1.14	0.79	0.050	0.100	0.060	0.000	1786.90	2900.71
0.004600	0.	0.	0.	0	0	5	0.00	1846.89	4747.60

FLOW DISTRIBUTION FOR SECNO= 102.00 CWSEL= 1788.65

STA=	2901.	3200.	4650.	4748.

PER GE=	4.4	94.4	1.2
AREA=	97.4	1740.8	31.7
VEL=	1.0	1.1	0.8

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 132 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.004600	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

•PROF 3

CCHV= 0.100 CEHV= 0.300
•SECNO 102.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

102.00	2.28	1789.18	0.00	0.00	1789.21	0.03	0.00	0.00	1788.00
4200.	452.	3625.	123.	321.	2509.	105.	0.	0.	1788.00
0.00	1.41	1.44	1.18	0.050	0.100	0.060	0.000	1786.90	2656.89
0.004549	0.	0.	0.	0	0	5	0.00	2170.21	4827.10

FLOW DISTRIBUTION FOR SECNO= 102.00 CWSEL= 1789.18

STA=	2657.	3200.	4650.	4827.
PER Q=	10.8	86.3	2.9	
AREA=	320.6	2509.4	104.5	
VEL=	1.4	1.4	1.2	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 102 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	0.004600	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 3.100 CEHV= 0.300
*SECNO 102.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 102.00 EXTENDED 0.26 FEET

102.00	3.86	1790.76	0.00	0.00	1790.85	0.09	0.00	0.00	1788.00
16600.	4632.	10773.	1195.	1742.	4806.	573.	0.	0.	1788.00
0.00	2.66	2.24	2.09	0.050	0.100	0.060	0.000	1786.90	2050.00
0.004604	0.	0.	0.	0	0	4	0.00	3014.70	5064.70

FLOW DISTRIBUTION FOR SECNO= 102.00 CWSEL= 1790.76

STA=	2050.	3200.	4650.	5065.
PER Q=	27.9	64.9	7.2	
AREA=	1741.8	4806.1	573.2	
VEL=	2.7	2.2	2.1	

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
102.000	0.00	0.00	0.00	1786.90	1000.00	1788.24	0.00	1788.25	46.29	0.86	1164.51	146.97
102.000	0.00	0.00	0.00	1786.90	2100.00	1788.65	0.00	1788.67	46.00	1.14	1869.93	309.62
102.000	0.00	0.00	0.00	1786.90	4200.00	1789.18	0.00	1789.21	45.48	1.44	2934.52	622.78

102.000	0.00	0.00	3.00	1786.90	16600.00	1790.76	0.00	1790.85	46.04	2.24	7121.23	2446.59

1
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Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
102.000	1900.00	1788.24	0.00	0.00	0.00	1596.99	0.00
102.000	2100.00	1788.65	0.41	0.00	0.00	1846.89	0.00
102.000	4200.00	1789.18	0.53	0.00	0.00	2170.21	0.00
102.000	16600.00	1790.76	1.58	0.00	0.00	3014.70	0.00

1
31-AUG-87 10:58:22 PAGE 11

SUMMARY OF ERRORS AND SPECIAL NOTES

1
31-AUG-87 10:58:32 PAGE 1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.36 - Normal Depth
J1       0          2                    0.0032
J2       1                    -1
J3     150
NC 0.130    0.130    0.130      0.1      0.3
ST       4     3200     5900    10200    32000
X1 10.36         6     2230     5460
X2                                                                        15
GR1753.2     2000  1752.0     2230  1748.6     3490  1749.4     4560  1752.0     5460
GR1756.0     6410
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.36 - Normal Depth
J1     -10          3                    0.0032
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.36 - Normal Depth
J1     -10          4                    0.0032
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.36 - Normal Depth
J1     -10          5                    0.0032
J2      15                    -1
```

```
ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:09:05          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X     X
XXXXXXX  XXXX      X           XXXXX  XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX    XXXXX            XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -   50,51,52,53,54,55
*************************************************

T1        CORECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.36 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.003200      0.00      0.0       0.    0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.130     0.130     0.130     0.100     0.300     0.000     0.000     0.000     0.000     0.000
OT      4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1     10.360     6.000  2230.000  5460.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1753.200  2000.000  1752.000  2230.000  1748.600  3480.000  1749.400  4560.000  1752.000  5460.000
GR   1756.800  6410.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 10.369
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.36	2.46	1751.06	0.00	0.00	1751.07	0.01	0.00	0.00	1752.00
3200.	0.	3200.	0.	0.	3800.	0.	0.	0.	1752.00
0.00	0.00	0.84	0.00	0.130	0.130	0.130	0.000	1748.60	2578.65
0.003197	0.	0.	0.	0	0	5	0.00	2555.69	5134.34

FLOW DISTRIBUTION FOR SECNO= 10.36 CWSEL= 1751.06

STA= 2579. 5460.
PER Q= 100.0
AREA= 3800.4
VEL= 0.8

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORPCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.36 - Normal Depth

J1	ICHECK	INQ	NINV	IDTR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.003200	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 10.360
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.36	3.21	1751.81	0.00	0.00	1751.83	0.02	0.00	0.00	1752.00
5900.	0.	5900.	0.	0.	5933.	0.	0.	0.	1752.00
0.00	0.00	0.99	0.00	0.130	0.130	0.130	0.000	1748.60	2298.94
0.003180	0.	0.	0.	0	0	5	0.00	3096.66	5395.60

FLOW DISTRIBUTION FOR SECNO= 10.36 CWSEL= 1751.81

```
STA=    2299.     3460.
  PER Q=    100.0
   AREA=   5933.4
    VEL=      1.0

1
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  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************

  T1        CORPCD/COE OVERFLOW STUDY
  T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
  T3        Overflow Cross Section 10.36 - Normal Depth

  J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       -10.       4.        0.        0.  0.003200       0.00      0.0       0.      0.000     0.000

  J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

        3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

  *PROF 3

  CCHV=   0.100  CEHV=   0.300
  *SECNO 10.360
  2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
      10.36      3.96   1752.56      0.00      0.00   1752.58      0.02      0.00      0.00   1752.00
     10200.        8.     10181.      10.       30.     8333.       37.       0.        0.     1752.00
       0.00      0.28       1.22      0.28     0.130     0.130     0.130     0.000   1748.60   2122.51
  0.003228        0.         0.        0.        0         0         4       0.00   3470.68   5593.19
1
 FLOW DISTRIBUTION FOR SECNO=     10.36          CWSEL=   1752.56

 STA=    2123.     2230.     5460.     5593.
   PER Q=      0.1      99.8      0.1
    AREA=     30.1    8333.2     37.3
     VEL=      0.3       1.2      0.3

1
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  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************
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T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.36 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	0.003200	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 10.360
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 10.36 EXTENDED 1.78 FEET

10.36	6.38	1754.98	0.00	0.00	1755.03	0.05	0.00	0.00	1752.00
3200.	626.	30487.	887.	547.	16140.	1053.	0.	0.	1752.00
0.00	1.15	1.89	0.84	0.130	0.130	0.130	0.000	1748.60	2000.00
0.003196	0.	0.	0.	0	0	6	0.00	4167.19	6167.19

FLOW DISTRIBUTION FOR SECNO= 10.36 CWSEL= 1754.98

STA=	2000.	2230.	5460.	6167.
PER Q=	2.0	95.3	2.8	
AREA=	546.9	16139.7	1052.8	
VEL=	1.1	1.9	0.8	

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10.360	0.00	0.00	0.00	1748.60	3200.00	1751.06	0.00	1751.07	31.97	0.84	3800.43	565.97
10.360	0.00	0.00	0.00	1748.60	5900.00	1751.21	0.00	1751.83	31.80	0.99	5933.39	1046.31

10.359	0.00	0.00	0.00	1748.60	10200.00	1752.56	0.00	1752.58	32.28	1.22	8400.71	1795.13
10.359	0.00	0.00	0.00	1748.60	32000.00	1754.98	0.00	1755.03	31.96	1.89	17739.44	5660.20

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.360	3200.00	1751.06	0.00	0.00	0.00	2555.69	0.00
10.360	5900.00	1751.81	0.75	0.00	0.00	3096.66	0.00
10.360	10200.00	1752.56	0.75	0.00	0.00	3470.68	0.00
10.360	32000.00	1754.98	2.42	0.00	0.00	4167.19	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 10.59 - Normal Depth
J1      0        2                    0.0030
J2      1                -1
J3    150
NC 0.130   0.130   0.130     0.1      0.3
QT      4    3200    5900   10200    32000
X1 10.59         7    4050    5810
X2                                                                      15
GR1760.0    2000  1756.0    2450  1756.0    4050  1753.0    4540  1756.0    5810
GR1760.0    6630  1760.5    6780
EJ
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 10.59 - Normal Depth
J1    -10        3                    0.0030
J2      2                -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 10.59 - Normal Depth
J1    -10        4                    0.0030
J2      3                -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 10.59 - Normal Depth
J1    -10        5                    0.0030
J2     15                -1


ER
EOF..
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U.S. ARMY CORPS OF ENGINEERS
THE HYDROLOGIC ENGINEERING CENTER
609 SECOND STREET, SUITE D
DAVIS, CALIFORNIA 95616
(916) 440-2105 (FTS) 448-2105


```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:09:21          *
 *************************************************

      X     X  XXXXXXX   XXXXX              XXXXX
      X     X  X        X     X            X     X
      X     X  X        X                  X     X
      XXXXXXX  XXXX     X          XXXXX    XXXXX
      X     X  X        X                  X
      X     X  X        X     X            X
      X     X  XXXXXXX   XXXXX              XXXXXXX

1
  31-AUG-87     00:09:21                                                  PAGE     1


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1992
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1         CORPCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 10.59 - Normal Depth

 J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         2.         0.         0.   0.003000       0.00       0.0        0.       0.000      0.000

 J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

       1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000


 NC       0.130      0.130      0.130      0.100      0.300      0.000      0.000      0.000      0.000      0.000
 GT       4.000   3200.000   5900.000  10200.000  32000.000      0.000      0.000      0.000      0.000      0.000
 X1      10.590      7.000   4050.000   5910.000      0.000      0.000      0.000      0.000      0.000      0.000
 X2       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
 GR    1760.000   2000.000   1756.000   2450.000   1756.000   4050.000   1753.000   4540.000   1756.000   5810.000
 GR    1760.000   6630.000   1760.500   6780.000      0.000      0.000      0.000      0.000      0.000      0.000
 EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
  31-AUG-87     00:09:21                                                  PAGE     2

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
    Q          OLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 10.590
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.59	3.33	1756.33	0.00	0.00	1756.35	0.01	0.00	0.00	1756.00
3200.	163.	3035.	2.	541.	3228.	11.	0.	0.	1756.00
0.00	0.30	0.94	0.18	0.130	0.130	0.130	0.000	1753.00	2412.40
0.003013	0.	0.	0.	0	0	6	0.00	3466.12	5878.52

FLOW DISTRIBUTION FOR SECNO= 10.59 CWSEL= 1756.33

STA=	2412.	2450.	4050.	5810.	5879.
PER Q=	0.0	5.0	94.9	0.1	
AREA=	6.3	534.8	3228.2	11.5	
VEL=	0.2	3.3	0.9	0.2	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.59 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.003000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 10.590
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.59	3.95	1756.95	0.00	0.00	1756.97	0.02	0.00	0.00	1756.00
5900.	946.	4918.	36.	1579.	4320.	93.	0.	0.	1756.00
0.00	0.60	1.14	0.38	0.130	0.130	0.130	0.000	1753.00	2342.59
0.002995	0.	0.	0.	0	0	5	0.00	3663.12	6005.72

FLOW DISTRIBUTION FOR SECNO= 10.59 CWSEL= 1756.95

```
 STA=     2345.     2450.     4050.     5810.     6005.
  PER Q=      0.3      15.7      83.4       0.6
   AREA=     51.3    1527.5    4320.3      93.4
    VEL=      0.4       0.6       1.1       0.4
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CCRECO/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.59 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
     -10.       4.        0.        0.  0.003000      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 *PROF 3

 CCHV=   0.100  CEHV=    0.300
 *SECNO 10.590
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    10.59      4.68   1757.68      0.00      0.00   1757.70      0.02      0.00      0.00   1756.00
   10200.     2465.     7574.      161.     2846.     5596.      289.        0.        0.   1756.00
     0.00      0.87      1.35      0.56     0.130     0.130     0.110     0.000   1753.00   2261.04
 0.002998        0.        0.        0.         0         9         5      0.00   3893.30   6154.34
1
 FLOW DISTRIBUTION FOR SECNO=     10.59          CWSEL=   1757.68

 STA=     2261.     2450.     4050.     5810.     6154.
   PER Q=      0.9      23.3      74.3       1.6
    AREA=    158.7    2687.5    5596.3     289.2
     VEL=      0.6       0.9       1.4       0.6
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

```
T1        CORFCD/COE OVERFLOW STUDY
I2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.59 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.       5.         0.         0.  0.003000       0.00       0.0        0.         0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
 31-AUG-87    00:09:21                                                                          PAGE     8

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 10.590
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
 3280 CROSS SECTION      10.59 EXTENDED       0.03 FEET

     10.59       7.03  1760.03       0.00       0.00  1760.08       0.05       0.00       0.00  1756.00
     32000.     11184.    19142.     1675.      7353.     9725.     1661.         0.         0.  1756.00
       0.00       1.52      1.97      1.11      0.130     0.130     0.130      0.000    1753.00  2000.00
  0.003035         0.        0.        0.          0         0         5       0.00    4637.73  6637.73
1
 FLOW DISTRIBUTION FOR SECNO=      10.59          CWSEL=    1760.03

 STA=     2000.     2450.     4050.     5810.     6630.
   PER Q=      2.9      32.1      59.8       5.2
   AREA=    911.6    6441.2    9725.3    1661.1
    VEL=      1.0       1.6       2.0       1.0

1
 31-AUG-87    00:09:21                                                                          PAGE     9


 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section

 SUMMARY PRINTOUT TABLE  150

       SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
       10.590      0.00       0.00       0.00    1753.00    3200.00    1756.33       0.00    1756.35      30.13       0.94    3780.74     583.00
       10.590      0.00       0.00       0.00    1753.00    5900.00    1756.95       0.00    1756.97      29.95       1.14    5992.51    1078.07
```

10.590	0.00	0.00	0.00	1753.00	10200.00	1757.68	0.00	1757.78	29.98	1.35	5731.64	1862.95
10.590	0.00	0.00	0.00	1753.00	32000.00	1760.03	0.00	1760.08	30.35	1.97	18739.35	5808.98

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.590	3200.00	1756.33	0.00	0.00	0.00	3466.12	0.00
10.590	5900.00	1756.95	0.62	0.00	0.00	3663.12	0.00
10.590	10200.00	1757.68	0.72	0.00	0.00	3893.30	0.00
10.590	32000.00	1760.03	2.35	0.00	0.00	4637.73	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 LEDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.84 - Normal Depth
J1       0          2                    0.0047
J2       1                    -1
J3     150
NC 0.120    0.045    0.050      0.1       0.3
QT       4   3200     5900    10200     32000
K1 10.84         6     3840     6340
K2                                                                          15
GR1764.0     2030  1760.0     2360  1760.0     3840  1757.2     4290  1760.0     6340
GR1764.0     7440
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.84 - Normal Depth
J1    -10          3                    0.0047
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.84 - Normal Depth
J1    -10          4                    0.0047
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.84 - Normal Depth
J1    -10          5                    0.0047
J2      15                    -1
```

```
ER
EOF..
```

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```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:10:05          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.84 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.004700      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.120     0.045     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1     10.840     6.000  3840.000  6340.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.100     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1764.000  2000.000  1760.000  2360.000  1760.000  3840.000  1757.200  4299.000  1760.000  6340.000
GR   1764.000  7440.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 10.840
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.84	1.91	1755.11	0.00	0.00	1759.17	0.06	0.00	0.00	1760.00
3200.	0.	3200.	0.	0.	1621.	0.	0.	0.	1760.00
0.00	0.00	1.97	0.00	0.120	0.050	0.045	0.000	1757.20	3983.74
0.004706	0.	0.	0.	0	0	6	0.00	1701.43	5685.18

FLOW DISTRIBUTION FOR SECNO= 10.84 CWSEL= 1759.11

STA= 3984. 6340.
PER G= 100.0
AREA= 1421.1
VEL= 2.0

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.84 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.004700	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
31-AUG-87 00:10:06 PAGE 4

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 10.840
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.84	2.40	1759.60	0.00	0.00	1759.68	0.08	0.00	0.00	1760.00
5900.	0.	5900.	0.	0.	2561.	0.	0.	0.	1760.00
0.00	0.00	2.30	0.00	0.120	0.050	0.045	0.000	1757.20	3905.07
0.004726	0.	0.	0.	0	0	6	0.00	2138.48	6043.56

FLOW DISTRIBUTION FOR SECNO= 10.84 CWSEL= 1759.60

STA= 3984. 6340.

STA= 5935. 6340.
PER Q= 100.0
AREA= 2560.9
VEL= 2.3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.84 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.024700	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 10.840
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.84	2.91	1760.11	0.00	0.00	1760.22	0.11	0.00	0.00	1760.00
10200.	31.	10169.	1.	160.	3770.	2.	0.	0.	1760.00
0.00	0.19	2.70	0.32	0.120	0.050	0.045	0.000	1757.20	2350.30
0.004765	0.	0.	0.	0	0	6	0.00	4019.34	6369.64

FLOW DISTRIBUTION FOR SECNO= 10.84 CWSEL= 1760.11

STA= 2350. 3840. 6340. 6370.
PER Q= 0.3 99.7 0.0
AREA= 160.0 3769.5 1.6
VEL= 0.2 2.7 0.3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

```
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.84 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        -10.        5.         0.         0.  0.004700       0.00        0.0         0.      0.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 10.840
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    10.84      4.25   1761.45      0.00       0.00    1761.68       0.24       0.00       0.00    1760.00
   3200.      2385.     29092.      523.      2233.      7113.       287.          0.          0.    1760.00
     0.00       1.07       4.09       1.82      0.120      0.050      0.045      0.000    1757.20    2229.93
 0.004697          0.         0.         0.          0          0          5       0.00    4507.45    6737.43

 FLOW DISTRIBUTION FOR SECNO=     10.84          CWSEL=   1761.45

 STA=    2230.     2360.     3840.     6340.     6737.
   PER Q=     0.2       7.3      90.9       1.6
    AREA=    94.0    2138.9    7113.0     287.2
     VEL=     0.7       1.1       4.1       1.8

1
 31-AUG-87    00:10:06                                                                          PAGE     9


 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section
 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     10.840      0.00       0.00       0.00    1757.20    3200.00    1759.11       0.00    1759.17      47.06       1.97    1621.06     466.48
     10.840      0.00       0.00       0.00    1757.20    5900.00    1759.60       0.00    1759.68      47.26       2.30    2560.85     858.26
     10.840      0.00       0.00       0.00    1757.20   10200.00    1760.11       0.00    1760.22      47.65       2.70    3931.18    1477.68
     10.840      0.00       0.00       0.00    1757.20   32000.00    1761.45       0.00    1761.66      46.97       4.09    9633.05    4669.13
```

Overflow Cross Sectior

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.840	3200.00	1759.11	0.00	0.00	0.00	1701.43	0.00
10.840	5900.00	1759.60	0.49	0.00	0.00	2138.48	0.00
10.840	10200.00	1760.11	0.51	0.00	0.00	4019.34	0.00
10.840	32000.00	1761.45	1.34	0.00	0.00	4507.49	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11
J1             2                    0.0106                                  1990
J2      1                -1
J3    150
NC  0.120    0.120    0.120
ET      4      400      800     2900     9500
K1     11        8     3550     3670
K2                                                                          15.0
K4      4   1987.3     1970   1986.1     2190     1987     2470   1988.3     2750
GR   1989     1540   1987.5     1760   1986.5     1990   1986.0     3550   1986.0     3670
GR   1987     4270   1987.5     4530     1991     4770
EJ
T1          Clark County, Nevada COE -  50 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11
J1             3                    0.0106                                  1990
J2      2                -1
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 10
J1             4                    0.0106                                  1990
J2      3                -1
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11
J1             5                    0.0106                                  1990
J2     15                -1

ER
EOF..
```

1 **
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 18-FEB-88 TIME 15:46:19 *
****

****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
****


```
X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X            X     X
X      X  X         X                  X     X
XXXXXXX   XXXX      X          XXXXX    XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
```

1
18-FEB-88 15:46:20

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*************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
 ERROR CORR - 01,02,03,04,05
 MODIFICATION - 50,51,52,53,54,55
*************************************************

T1          Clark County, Nevada COE - 25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        2.        0.        0.  0.010600      0.00      0.0       0.  1990.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.120     0.120     0.120     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      4.000   400.000   800.000  2900.000  9500.000     0.000     0.000     0.000     0.000     0.000
X1     11.000     8.000  3550.000  3670.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
X4      4.000  1987.300  1970.000  1986.100  2190.000  1987.000  2470.000  1988.300  2750.000     0.000
GR   1989.000  1540.000  1987.500  1760.000  1986.500  1890.000  1986.000  3550.000  1986.000  3670.000
GR   1987.000  4270.000  1987.500  4530.000  1991.000  4770.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
```

Q	WLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*PROF 1

*SECNO 11.000

3265 DIVIDED FLOW

11.00	0.80	1986.80	0.00	1990.00	1986.81	0.01	0.00	0.00	1986.00
400.	159.	106.	134.	245.	96.	154.	0.	0.	1986.00
0.00	0.65	1.10	0.69	0.120	0.120	0.120	0.000	1986.00	1850.52
0.010577	0.	0.	0.	0	0	8	0.00	1299.57	4152.23

FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 1986.80

STA=	1851.	1890.	1920.	2190.	2409.	3550.	3670.	4152.
PER Q=	0.5	0.4	7.2	12.2	19.5	26.5	33.6	
AREA=	6.0	4.6	45.4	77.0	112.3	96.4	193.8	
VEL=	0.4	0.4	0.6	0.6	0.7	1.1	0.7	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 11

J1	ICHECK	INO	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.013600	0.00	0.0	0.	1990.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 11.000

3265 DIVIDED FLOW

11.00	1.05	1987.05	0.00	1990.00	1987.06	0.01	0.00	0.00	1986.00
800.	353.	166.	281.	449.	126.	330.	0.	0.	1986.00
0.00	0.79	1.31	0.85	0.120	0.120	0.120	0.000	1986.00	1818.62
0.010576	0.	0.	0.	0	0	7	0.00	1701.25	4295.52

FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 1987.05

STA=	1813.	1890.	1945.	2190.	2470.	3550.	3670.	4270.	4296.
PER Q=	1.3	1.0	8.3	14.0	19.8	20.7	35.2	0.8	
AREA=	19.6	15.1	82.5	139.7	191.7	125.9	329.4	0.6	
VEL=	0.5	0.5	0.8	0.8	0.8	1.3	0.9	0.1	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 100 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 10

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.010600	0.00	0.0	0.	1990.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

•PROF 3

•SECNO 11.000

3265 DIVIDED FLOW

11.00	1.68	1987.68	0.00	1990.00	1987.71	0.03	0.00	0.00	1986.00
2900.	1450.	363.	1088.	1226.	202.	821.	0.	0.	1986.00
0.00	1.18	1.80	1.33	0.120	0.120	0.120	0.000	1986.00	1733.61
0.010568	0.	0.	0.	0	0	5	0.00	2459.48	4542.34

FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 1987.68

STA=	1734.	1760.	1890.	1970.	2190.	2470.	2616.	3550.	3670.	4270.	4530.	4542.
PER Q=	0.0	3.0	2.3	9.3	15.1	1.1	19.2	12.5	34.7	2.8	0.0	
AREA=	2.4	89.4	62.4	215.6	316.4	49.8	490.8	201.6	708.0	111.8	1.1	
VEL=	0.3	1.0	1.1	1.3	1.4	0.6	1.1	1.8	1.4	0.7	0.3	

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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -   50,51,52,53,54,55
**********************************************

T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q          WSEL      FQ
       0.        5.        0.        0.   0.010600        0.00      0.0       0.   1990.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IRW       CHNIM     ITRACE
    15.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 4

*SECNO 11.000
    11.00      2.67   1988.67      0.00   1990.00   1988.73      0.06      0.00      0.00   1986.00
    9500.      5288.      797.      3425.      2988.      320.      1718.        0.        0.   1986.00
     0.00      1.77      2.46      1.99     0.120     0.120     0.120     0.000   1986.00   1588.36
0.010630        0.        0.        0.         0         0         5      0.00   3021.89   4610.25

FLOW DISTRIBUTION FOR SECNO=     11.00          CWSEL=   1988.67

STA=     1538.     1760.     1890.     1970.     2190.     2470.     2750.     3550.     3670.     4270.     4530.     4610.
  PER Q=     0.9       4.1       2.3       9.2      13.2       3.9      21.6       8.3      29.3       6.3       0.4
  AREA=    10.4     217.1     141.6     433.4     593.7     285.7    1216.2     320.4    1302.2     369.3      47.0
   VEL=     0.9       1.8       1.9       2.0       2.1       1.3       1.7       2.5       2.1       1.6       0.9

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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -   50,51,52,53,54,55
**********************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

    Overflow X-Sec. 11

SUMMARY PRINTOUT TABLE  150

      SECNO       XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     11.000       0.00       0.00       0.00    1986.00     400.00    1986.82       0.00    1986.81     105.77      1.10     535.58     38.89
     11.000       0.00       0.00       0.00    1986.00     800.00    1987.05       0.00    1987.06     105.76      1.31     904.57     77.79
```

11.000	0.00	0.00	0.00	1986.00	2900.00	1987.68	0.00	1987.71	105.68	1.80	2248.12	282.10
11.000	0.00	0.00	0.00	1986.00	9500.00	1988.67	0.00	1988.73	106.30	2.46	5027.02	921.42

Overflow X-Sec. 11

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.000	400.00	1986.80	0.00	0.00	-3.20	1299.57	0.00
11.000	800.00	1987.05	0.25	0.00	-2.95	1701.25	0.00
11.000	2900.00	1987.68	0.63	0.00	-2.32	2459.48	0.00
11.000	9500.00	1988.67	0.99	0.00	-1.33	3021.89	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.04 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.080    0.080    0.070      0.1       0.3
ST       4     3200     5900    10200     32000
X1 11.04           7     3430     3560
K2                                                                          15
GR1768.0     2000  1764.0     2780  1766.3     3430  1763.0     3950  1764.0     3960
GR1764.0     5110  1768.0     6700
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.04 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.04 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.04 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1
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ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:10:23          *
 *************************************************
```


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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1         CORFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 11.04 - Normal Depth

 J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.         2.         0.         0.   0.005000       0.00       0.0        0.       0.000      0.000
 J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
       1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

 NC       0.080      0.080      0.070      0.100      0.300      0.000      0.000      0.000      0.000      0.000
 NT       4.000   3200.000   5900.000  10200.000  32000.000      0.000      0.000      0.000      0.000      0.000
 X1      11.040      7.000   3430.000   3960.000      0.000      0.000      0.000      0.000      0.000      0.000
 X2       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
 GR    1768.000   2000.000   1764.000   2780.000   1766.300   3430.000   1763.000   3950.000   1764.000   3960.000
 GR    1764.000   5110.000   1768.000   6700.000      0.000      0.000      0.000      0.000      0.000      0.000
 EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 11.040
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

11.04	2.13	1765.19	0.00	0.00	1765.22	0.03	0.00	0.00	1766.30
3200.	310.	631.	2259.	336.	393.	1643.	0.	0.	1764.00
0.00	0.92	1.60	1.37	0.080	0.070	0.080	0.000	1763.00	2548.77
0.004970	0.	0.	0.	0	0	7	0.00	2542.11	5581.35

FLOW DISTRIBUTION FOR SECNO= 11.04 CWSEL= 1765.19

STA=	2549.	2780.	3115.	3960.	5110.	5581.
PER Q=	4.0	5.7	19.7	62.5	8.1	
AREA=	137.1	198.7	393.3	1363.7	279.5	
VEL=	0.9	0.9	1.6	1.5	0.9	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.04 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 11.040
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

11.04	2.65	1765.65	0.00	0.00	1765.69	0.04	0.00	0.00	1766.30

```
     5900.      750.     1050.     4100.      650.      575.     2438.        0.          0.     1764.00
      0.00      1.15      1.83      1.68     0.080     0.070     0.080     0.000    1763.00     2458.36
 0.004994        0.        0.        1.         0         0         5      0.00    3020.88     5765.64
)
 FLOW DISTRIBUTION FOR SECNO=     11.04          CWSEL=   1765.65

 STA=    2458.     2780.     3246.     3960.     5110.     5766.
   PER Q=     5.2       7.5      17.8      58.9      10.6
    AREA=   265.3     384.4     574.5    1896.8     540.7
     VEL=     1.2       1.2       1.8       1.8       1.2

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 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 T1         CORECD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 11.04 - Normal Depth

 J1   ICHECK      INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL      FQ
       -10.        4.         0.        0.  0.005000        0.00       0.0         0.      0.000     0.000
 J2   NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC     IRU       CHNIM     ITRACE
        3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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  31-AUG-87     00:10:24                                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.040
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

 3265 DIVIDED FLOW

    11.04      3.19  1766.19      0.00      0.00  1766.25      0.06      0.00      0.00  1766.30
   10200.     1596.     1709.     6895.     1147.      829.     3475.        0.        0.  1764.00
     0.00      1.39      2.06      1.98     0.080     0.070     0.080     0.000  1763.00  2352.63
 0.004966        0.        0.        1.         0         0         5      0.00  3560.84  5981.18
)
 FLOW DISTRIBUTION FOR SECNO=     11.04          CWSEL=   1766.19

 STA=    2353.     2780.     3399.     3960.     5110.     5981.
   PER Q=     6.4       9.3      16.8      54.6      13.0
    AREA=   468.3     678.7     829.5    2520.4     954.7
     VEL=     1.4       1.4       2.1       2.2       1.4

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1       CCRECO/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       Overflow Cross Section 11.04 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -10.       5.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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 31-AUG-87    00:10:24                                                                    PAGE    8

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XAL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.040
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     11.04      4.77  1767.77      0.03      0.00  1767.89      0.12      0.00      0.00  1766.30
   32000.     7065.     5387.    19548.     3093.     1667.     7168.        0.        0.  1764.00
      0.00      2.28      3.23      2.73     0.080     0.070     0.080     0.000  1763.00  2044.27
 0.005032        0.        0.        0.         0         0         4      0.00  4565.47  6609.75
)
 FLOW DISTRIBUTION FOR SECNO=     11.04          CWSEL=   1767.77

 STA=    2044.     2780.     3430.     3960.     5110.     6610.
   PER Q=     8.7      13.4      16.8      43.3      17.8
    AREA=  1387.9    1704.9    1666.7    4338.9    2829.2
     VEL=     2.0       2.5       3.2       3.2       2.0

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 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Sectior
```

SUMMARY PRINTOUT TABLE 153

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11.040	0.00	0.00	0.00	1763.00	3200.00	1765.19	0.00	1765.22	49.70	1.60	2372.18	453.90
11.040	0.00	0.00	0.00	1763.00	5900.00	1765.65	0.00	1765.69	49.94	1.83	3661.74	834.85
11.040	0.00	0.00	0.00	1763.00	10200.00	1766.19	0.00	1766.25	49.66	2.06	5451.59	1447.47
11.040	0.00	0.00	0.00	1763.00	32000.00	1767.77	0.00	1767.89	50.32	3.23	11927.61	4511.04

Overflow Cross Section

SUMMARY PRINTOUT TABLE 159

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.040	3200.00	1765.19	0.00	0.00	0.00	2542.11	0.00
11.040	5900.00	1765.65	0.46	0.00	0.00	3020.88	0.00
11.040	10200.00	1766.19	0.54	0.00	0.00	3580.84	0.00
11.040	32000.00	1767.77	1.58	0.00	0.00	4565.47	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.27 - Normal Depth
J1       0          2                    0.0036
J2       1                    -1
J3     150
NC 0.120    0.080    0.080       0.1       0.3
ST       4     3200     5900     10200     32000
X1 11.27         5     2940      7460
X2                                                                          15
GR1776.0      2000  1772.0      2940   1757.7      4340   1772.0      7460  1776.0      8460
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.27 - Normal Depth
J1     -10          3                    0.0036
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.27 - Normal Depth
J1     -10          4                    0.0036
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.27 - Normal Depth
J1     -10          5                    0.0036
J2      15                    -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:10:39          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 11.27 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        2.        3.        0.  0.003600      0.00      0.0       0.     0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.120     0.080     0.083     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1     11.270     5.000  2940.003  7460.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1776.000  2000.000  1772.000  2940.000  1767.700  4340.000  1772.000  7460.000  1776.000  8460.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

•PROF 1

CCHV= 0.100 CEHV= 0.300
•SECNO 11.270
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.27	2.25	1769.95	0.00	0.00	1769.97	0.02	0.00	0.00	1772.00
3200.	0.	3200.	0.	0.	2660.	0.	0.	0.	1772.00
0.00	0.00	1.20	0.00	0.120	0.080	0.080	0.000	1767.70	3607.57
0.003587	0.	0.	0.	0	0	4	0.00	2364.70	5972.27

FLOW DISTRIBUTION FOR SECNO= 11.27 CWSEL= 1769.95

STA= 3608. 7460.
PER Q= 100.0
AREA= 2659.7
VEL= 1.2

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.27 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.003600	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	WLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

•PROF 2

CCHV= 0.100 CEHV= 0.300
•SECNO 11.270
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.27	2.82	1770.52	0.00	0.00	1770.55	0.03	0.00	0.00	1772.00
5900.	0.	5900.	0.	0.	4191.	0.	0.	0.	1772.00
0.00	0.00	1.41	0.00	0.120	0.080	0.080	0.000	1767.70	3420.62
0.003627	0.	0.	0.	0	0	5	0.00	2968.29	6388.91

FLOW DISTRIBUTION FOR SECNO= 11.27 CWSEL= 1770.52

STA= 3421. 7460.

```
  PER Q=    100.0
  AREA=   4190.8
   VEL=      1.4

1
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 ************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1        CORPCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 11.27 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       4.        0.        0.  0.003600      0.00      0.0       0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROP      VOL       TWA     LEFT/RIGHT
    TIME      V_OB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.270
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     11.27       3.47   1771.17      0.00      0.00   1771.21      0.04      0.00      0.00   1772.00
    10200.         0.   10200.         0.         0.    6314.         0.         0.         0.   1772.00
      0.00       0.00      1.62      0.00     0.120     0.080     0.080     0.000   1767.70   3211.53
  0.003633         0.         0.         0.         0         0         5      0.00   3643.36   6854.88
3
 FLOW DISTRIBUTION FOR SECNO=     11.27          CWSEL=   1771.17

 STA=    3212.     7460.
   PER Q=    100.0
    AREA=   6314.1
     VEL=      1.6

1
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 ************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ************************************************
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```
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 11.27 - Normal Depth

J1  ICHECK     INO        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.       5.         0.         0.   0.003600       0.00       0.0        0.       0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        ARCH       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.270
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    11.27       5.16    1772.86       0.00       0.00    1772.95       0.09       0.00       0.00    1772.00
    32000.        37.      31903.        59.        87.      13611.        93.         0.         0.    1772.00
      0.00       0.43       2.34       0.54      0.120      0.080      0.080      0.000    1767.70    2737.62
 0.003662         0.         0.         0.          0          0          4       0.00    4937.69    7675.30

 FLOW DISTRIBUTION FOR SECNO=     11.27          CWSEL=   1772.86

 STA=     2738.     2940.     7460.     7675.
   PER Q=      0.1      59.7       0.2
    AREA=     57.1   13610.8      92.7
     VEL=      0.4       2.3       0.6

1
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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section
 SUMMARY PRINTOUT TABLE  150

      SECNO       XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     11.270       0.00       0.00       0.00    1767.70    3200.00    1769.95       0.00    1769.97      35.87       1.20    2659.72     534.32
     11.270       0.00       0.00       0.00    1767.70    5900.00    1770.52       0.00    1770.55      36.27       1.41    4190.83     979.71
     11.270       0.00       0.00       0.00    1767.70   10200.00    1771.17       0.00    1771.21      36.33       1.62    6314.05    1692.19
     11.270       0.00       0.00       0.00    1767.70   32000.00    1772.86       0.00    1772.95      36.62       2.34   13790.59    5288.14
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.270	3200.00	1769.95	0.00	0.00	0.00	2364.70	0.00
11.270	5900.00	1770.52	0.57	0.00	0.00	2968.29	0.00
11.270	10200.00	1771.17	0.64	0.00	0.00	3643.36	0.00
11.270	32000.00	1772.86	1.70	0.00	0.00	4937.69	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.48 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.080    0.080    0.080      0.1      0.3
QT       4    3200     5600    10200    32000
X1 11.48         7     3340     3860
X2                                                                          15
GR1780.0     1000   1776.0     2000   1772.0     3340   1771.4     3390   1772.0     3860
GR1776.0     7540   1780.0     8690
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.48 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.48 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.48 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1


ER
EOF..
```

172

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:10:54          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X           XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 11.48 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.005000      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.080     0.080     0.080     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1     11.480     7.000  3340.000  3860.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1780.000  1000.000  1776.000  2000.000  1772.000  3340.000  1771.400  3390.000  1772.000  3860.000
GR   1776.000  7540.000  1780.000  8690.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q       QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF I

CCHV= 0.100 CEHV= 0.300
*SECNO 11.480
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.48	2.07	1773.47	0.00	0.00	1773.51	0.04	0.00	0.00	1772.00
3200.	384.	1761.	1055.	360.	918.	989.	0.	0.	1772.00
0.00	1.07	1.92	1.07	0.080	0.080	0.080	0.000	1771.40	2848.97
0.004992	0.	0.	0.	0	0	5	0.00	2359.91	5208.78

FLOW DISTRIBUTION FOR SECNO= 11.48 CWSEL= 1773.47

STA=	2349.	3340.	3860.	5209.
PER Q=	12.0	55.0	33.0	
AREA=	360.0	919.3	988.7	
VEL=	1.1	1.9	1.1	

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 CCRECO/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.48 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 11.490
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.49	2.58	1773.98	0.00	0.00	1774.03	0.05	0.00	0.00	1772.00
5900.	855.	2696.	2349.	656.	1185.	1801.	0.	0.	1772.00
0.00	1.30	2.28	1.30	0.080	0.080	0.030	0.000	1771.40	2677.24
0.005006	0.	0.	0.	0	0	5	0.00	3002.88	5680.12

FLOW DISTRIBUTION FOR SECNO= 11.48 CWSEL= 1773.98

```
STA=     2677.     3340.     5860.     6680.
  PER Q=     14.5      45.7      39.8
   AREA=    655.6    1184.7    1900.3
    VEL=      1.3       2.3       1.3

1
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 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1        CORPCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 11.48 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       4.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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 31-AUG-87    00:10:55                                                    PAGE    6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.480
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    11.48      3.14  1774.54      0.00      0.00  1774.61      0.06      0.00      0.00  1772.00
    10200.     1678.     3915.     4607.     1083.     1478.     2975.        0.        0.  1772.00
       0.00      1.55      2.65      1.55     0.080     0.080     0.080     0.000  1771.40  2487.98
 0.005045        0.        0.        0.         0         0         5      0.00  3711.89  6199.87

 FLOW DISTRIBUTION FOR SECNO=     11.48          CWSEL=   1774.54

 STA=     2489.     3340.     3860.     6200.
   PER Q=     16.4      38.4      45.2
    AREA=    1083.4    1478.5    2975.4
     VEL=      1.5       2.6       1.5

1
 31-AUG-87    00:10:55                                                    PAGE    7


 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************
```

T1 CORFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.48 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROF	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 11.480
2095 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.48	4.76	1776.16	0.00	0.00	1776.26	0.11	0.00	0.00	1772.00
3200.00	6341.	8245.	17414.	2895.	2316.	7945.	0.	0.	1772.00
0.00	2.19	3.56	2.19	0.080	0.080	0.080	0.000	1771.40	1960.51
0.004997	0.	0.	0.	0	0	5	0.00	5624.90	7585.41

FLOW DISTRIBUTION FOR SECNO= 11.48 CWSEL= 1776.16

STA=	1951.	3340.	3960.	7540.	7585.
PER Q=	19.8	25.8	54.4	0.0	
AREA=	2894.8	2318.1	7941.3	3.6	
VEL=	2.2	3.6	2.2	0.2	

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11.480	0.00	0.00	0.00	1771.40	3200.00	1773.47	0.00	1773.51	49.92	1.92	2267.03	452.89
11.480	0.00	0.00	0.00	1771.40	5900.00	1773.98	0.00	1774.03	50.06	2.28	3640.64	833.91
11.480	0.00	0.00	0.00	1771.40	10200.00	1774.54	0.00	1774.61	50.45	2.65	5537.32	1436.11
11.480	0.00	0.00	0.00	1771.40	32000.00	1776.16	0.00	1776.26	49.97	3.56	13157.76	4526.92

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.480	3200.00	1773.47	0.00	0.00	0.00	2359.91	0.00
11.480	5900.00	1773.98	0.51	0.00	0.00	3002.88	0.00
11.480	10200.00	1774.54	0.56	0.00	0.00	3711.89	0.00
11.480	32000.00	1776.16	1.61	0.00	0.00	5624.90	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.77 - Normal Depth
J1      0           2                    0.0050
J2      1                -1
J3    150
NC 0.080   0.080   0.080     0.1      0.3
ST      4    3200    5900   10200    32000
X1 11.77         5    2000    6730
X2                                                              15
GR1784.0    1220  1780.0    2000  1776.0    3430  1780.0    6730  1784.0    8240
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.77 - Normal Depth
J1    -10           3                    0.0050
J2      2                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.77 - Normal Depth
J1    -10           4                    0.0050
J2      3                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.77 - Normal Depth
J1    -10           5                    0.0050
J2     15                -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:11:09          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1        CORECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 11.77 - Normal Depth

J1  ICHECK     INQ       NINV      IDTR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.005000      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.080       0.080       0.080       0.100       0.300       0.000       0.000       0.000       0.000       0.000
QT       4.000    3200.000    5900.000   10200.000   32000.000       0.000       0.000       0.000       0.000       0.000
X1      11.770       5.000    2000.000    6730.000       0.000       0.000       0.000       0.000       0.000       0.000
X2       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000      15.000
GR    1784.000    1220.000    1780.000    2000.000    1776.000    3430.000    1780.000    6730.000    1784.000    8240.000
EJ       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 11.770
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.77	2.02	1778.02	0.00	0.00	1778.05	0.03	0.00	0.00	1780.00
3200.	0.	3200.	0.	0.	2418.	0.	0.	0.	1780.00
0.00	0.00	1.32	0.00	0.080	0.080	0.080	0.000	1776.00	2706.97
0.004999	0.	0.	0.	0	0	4	0.00	2351.56	5098.53

FLOW DISTRIBUTION FOR SECNO= 11.77 CWSEL= 1778.02

STA= 2707. 6730.
PER Q= 100.0
AREA= 2418.4
VEL= 1.3

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.77 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.3	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 11.770
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.77	2.54	1778.54	0.00	0.00	1778.58	0.04	0.00	0.00	1780.00
5900.	0.	5900.	0.	0.	3817.	0.	0.	0.	1780.00
0.00	0.00	1.55	0.00	0.080	0.080	0.080	0.000	1776.00	2521.67
0.005033	0.	0.	0.	0	0	5	0.00	3004.46	5526.14

FLOW DISTRIBUTION FOR SECNO= 11.77 CWSEL= 1778.54

STA= 2522. 6730.

```
 PER Q=    100.0
  AREA=   3816.8
   VEL=      1.5

1
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 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1        CORPCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 11.77 - Normal Depth

 J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.        4.         0.         0.   0.005000       0.00       0.0         0.       0.000      0.000
 J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
       3.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
 31-AUG-87     00:11:10                                                                    PAGE     6

   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 *PROF 3

 CCHV=    0.100  CEHV=    0.300
 *SECNO 11.770
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     11.77       3.12    1779.12       0.00       0.00    1779.16       0.05       0.00       0.00    1780.00
   10200.          0.   10200.          0.          0.       5739.          0.          0.          0.    1780.00
      0.00       0.00       1.78       0.00      0.080      0.080      0.080      0.000    1776.00    2316.22
  0.005070          0.         0.         0.          0          0          5       0.00    3684.05    6000.27

1
 FLOW DISTRIBUTION FOR SECNO=      11.77          CWSEL=    1779.12

 STA=     2316.     6730.
   PER Q=    100.0
    AREA=   5738.8
     VEL=      1.8

1
 31-AUG-87     00:11:10                                                                    PAGE     7


 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************
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```
T1        CORECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 11.77 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.        5.         0.         0.   0.005000       0.00       0.0        0.      0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
 31-AUG-87    00:11:10                                                                          PAGE     8

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XAL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      COPAR      TOPWID      ENDST

 *PROF  4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.770
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    11.77       4.67    1780.67       0.33       0.00    1780.77       0.10       0.00       0.00    1780.00
    32000.       28.      31919.       54.        44.      12629.       85.         0.         0.      1780.00
      0.00       0.63       2.53       0.63     0.080      0.080      0.080      0.000    1776.00    1869.37
 0.004998          0.         0.         0.         0          0          5       0.00    5113.53    6982.90

 FLOW DISTRIBUTION FOR SECNO=     11.77          CWSEL=   1780.67

 STA=     1869.     2000.     6730.     6983.
   PER Q=      0.1       99.7       0.2
    AREA=     43.8   12628.7      84.7
     VEL=      0.6       2.5       0.6

1
 31-AUG-87    00:11:10                                                                          PAGE     9


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section
 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
      11.770     0.00       0.00       0.00       1776.00    3200.00    1778.02    0.00       1778.05    49.99      1.32       2418.42    452.58
      11.770     0.00       0.00       0.00       1776.00    5900.00    1778.54    0.00       1778.58    50.33      1.55       3816.83    831.62
      11.770     0.00       0.00       0.00       1776.00    10200.00   1779.12    0.00       1779.16    50.70      1.78       5738.79    1432.47
      11.770     0.00       0.00       0.00       1776.00    32000.00   1780.67    0.00       1780.77    49.98      2.53       12757.20   4526.27
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.770	3200.00	1778.02	0.00	0.00	0.00	2391.56	0.00
11.770	5900.00	1778.54	0.52	0.00	0.00	3004.46	0.00
11.770	10200.00	1779.12	0.57	0.00	0.00	3684.05	0.00
11.770	32000.00	1780.67	1.55	0.00	0.00	5113.53	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.97 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.080    0.050    0.050      0.1      0.3
QT       4    2200     3800     6000    15400
ET                              7.1      7.1              3000
X1 11.97         8     5670     6870
X2                                                                        15
GR1788.0     1470  1785.0     2000  1784.0     2750  1783.0     5670  1782.0     6060
GR1784.0     6870  1785.0     6920  1786.0     7270
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.97 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.97 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.97 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1

ER
EOF..
```

228

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1**********************************************************
 *  WATER SURFACE PROFILES                                *
 *  VERSION OF NOVEMBER 1976                              *
 *  UPDATED AUGUST 1983                                   *
 *                                                        *
 *  RUN DATE  28-DEC-87 TIME   02:07:50                   *
 **********************************************************
```


```
 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  THE HYDROLOGIC ENGINEERING CENTER  *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616            *
 *  (916) 440-2105 (FTS) 448-2105      *
 ***************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X          XXXXX   XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX

1
  28-DEC-87     02:07:50                                                    PAGE     1


 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ***************************************************

 T1         CORECD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 11.97 - Normal Depth

 J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.         2.         0.         0.   0.005000       0.00       0.0        0.       0.000      0.000
 J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
        1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
 J3   VARIABLE CODES FOR SUMMARY PRINTOUT
      150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

 NC       0.030      0.050      0.050      0.100      0.300      0.000      0.000      0.000      0.000      0.000
 QT       4.000   2200.000   3900.000   6900.000  15400.000      0.000      0.000      0.000      0.000      0.000
 ET       0.000      0.000      0.000      7.100      7.100      0.000   3000.000      0.000      0.000      0.000
 X1      11.970      8.000   5670.000   6870.000      0.000      0.000      0.000      0.000      0.000      0.000
 X2       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
 GR    1788.000   1470.000   1785.000   2000.000   1784.000   2750.000   1783.000   5670.000   1782.000   6060.000
 GR    1784.000   6870.000   1785.000   6920.000   1786.000   7270.000      0.000      0.000      0.000      0.000
 EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
  28-DEC-87     02:07:50                                                    PAGE     2

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
```

	Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
	TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
	SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 11.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.97	1.60	1783.60	0.00	0.00	1783.66	0.05	0.00	0.00	1783.00
2200.	314.	1886.	0.	531.	950.	0.	0.	0.	1784.00
0.00	0.59	1.98	0.00	0.080	0.050	0.050	0.000	1782.00	3909.52
0.005023	0.	0.	0.	0	0	6	0.00	2799.66	6709.18

FLOW DISTRIBUTION FOR SECNO= 11.97 CWSEL= 1783.60

STA=	3910.	5670.	6870.
PER Q=	14.3	85.7	
AREA=	530.6	950.4	
VEL=	0.6	2.0	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.97 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
	Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
	TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
	SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 11.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.97	1.90	1783.90	0.00	0.00	1783.96	0.06	0.00	0.00	1783.00
3800.	920.	2890.	0.	1187.	1279.	0.	0.	0.	1784.00
0.00	0.78	2.25	0.00	0.080	0.050	0.050	0.000	1782.00	3036.94
0.005040	0.	0.	0.	0	0	5	0.00	3793.26	6830.20

FLOW DISTRIBUTION FOR SECNO= 11.97 CWSEL= 1783.90

```
 STA=     3037.     5670.     6870.
   PER Q=     24.2      75.8
    AREA=   1187.0    1279.0
     VEL=      0.8       2.3

1
  28-DEC-87     02:07:50                                                    PAGE     5


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1         CCRECD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 11.97 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q         WSEL      FQ

      -10.        4.        0.        0.  0.005000       0.00      0.0        0.      0.000     0.000

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC     IBW       CHNIM     ITRACE

       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  28-DEC-87     02:07:50                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.970
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

 3470 ENCROACHMENT STATIONS=    3000.0     7270.0  TYPE=     1  TARGET=    -3000.000
     11.97      2.17   1784.17      0.00   1783.60   1784.24      0.07      0.00      0.00   1783.00
     6000.      1968.     4032.        0.     1894.     1595.        1.        0.        0.   1784.00
      0.00      1.04      2.53      0.40     0.080     0.050     0.050     0.000   1782.00   3000.00
  0.004951         0.        0.        0.         0         0        20      0.00   3878.33   6878.33
3
 FLOW DISTRIBUTION FOR SECNO=     11.97          CWSEL=   1784.17

 STA=     3000.     5670.     6870.     6878.
   PER Q=     32.8      67.2       0.0
    AREA=   1893.6    1594.8       0.7
     VEL=      1.0       2.5       0.4

1
  28-DEC-87     02:07:50                                                    PAGE     7


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
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ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.97 - Normal Depth

	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
J1	-10.	5.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
J2	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 11.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3470 ENCROACHMENT STATIONS= 3000.0 7270.0 TYPE= 1 TARGET= -3000.000

11.97	2.94	1784.94	0.00	1783.60	1785.06	0.12	0.00	0.00	1763.00	
15400.	6721.	8651.	28.	3951.	2524.	22.	0.	0.	1784.00	
0.00	1.70	3.43	1.26	0.080	0.050	0.050	0.000	1782.00	3000.00	
0.004935	0.	0.	0.	0	0	19	0.00	3917.04	6917.04	

FLOW DISTRIBUTION FOR SECNO= 11.97 CWSEL= 1784.94

STA=	3000.	5670.	6870.	6917.
PER Q=	43.6	56.2	0.2	
AREA=	3961.0	2524.0	22.1	
VEL=	1.7	3.4	1.3	

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K

11.970	0.00	0.00	0.00	1782.00	2200.00	1783.60	0.00	1783.66	50.23	1.98	1480.97	310.42
11.970	0.00	0.00	0.00	1782.00	3800.00	1783.90	0.00	1783.96	50.40	2.25	2465.99	535.26
11.970	0.00	0.00	0.00	1782.00	6000.00	1784.17	0.00	1784.24	49.51	2.53	3489.14	852.70
11.970	0.00	0.00	0.00	1782.00	15400.00	1784.94	0.00	1785.06	49.35	3.43	6507.08	2192.28

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.970	2200.00	1783.60	0.00	0.00	0.00	2799.66	0.00
11.970	3800.00	1783.90	0.30	0.00	0.00	3793.26	0.00
11.970	6000.00	1784.17	0.26	0.00	0.56	3876.33	0.00
11.970	15400.00	1784.94	0.77	0.00	1.34	3917.04	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -   50,51,52,53,54,55
**************************************************
```

EOF..

```
CCCCCC
      3
     12  ************************************************
     12  STA 2000 IS LOCATED ON MAP WITH TIC MARK
     12  ************************************************
T1         Clark County, Nevada COE - 100 year flood
T2         James M. Montgomery Consulting Engineers, Inc.
T3         Charleston  Overflow X-Sec. 12
J1            2                  0.0238                                  1975
J2     1              -1
J3   150
NC 0.123   0.123   0.123
JT     2    1500    12000
K1    12       7     2630     3130
GR  1975    2000  1972.5     2630     1970     3130     1975     3300     1980     3480
GR  1985    3860    1990     4370
EJ
T1         Clark County, Nevada COE - 500 year flood
T2         James M. Montgomery Consulting Engineers, Inc.
T3         Charleston  Overflow X-Sec. 12
J1            3                  0.0238                                  1975
J2    15              -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:46:59          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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 ***********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***********************************************

C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 12

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      G          WSEL       FQ
       0.         2.         0.         0.   0.023800       0.00       0.0        0.   1975.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC     0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT     2.000   1500.000  12000.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
        ***************************************************
        STA 2300 IS LOCATED ON MAP WITH TIC MARK
        ***************************************************
X1    12.000      7.000   2630.000   3130.000      0.000      0.000      0.000      0.000      0.000      0.000
GR  1975.000   2000.000   1972.500   2630.000   1970.000   3130.000   1975.000   3300.000   1980.000   3480.000
GR  1985.000   3860.000   1990.000   4370.000      0.000      0.000      0.000      0.000      0.000      0.000
EJ     0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 12.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

12.00	2.45	1972.45	0.00	1975.00	1972.52	0.07	0.00	0.00	1972.59
1500.	0.	1282.	218.	0.	601.	102.	0.	0.	1970.00
0.00	0.00	2.13	2.13	0.123	0.123	0.123	0.000	1970.00	2639.77
0.023787	0.	0.	0.	0	0	6	0.00	573.57	3213.34

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Charlston Overflow X-Sec. 12

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.023800	0.00	0.0	0.	1975.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 12.000
3280 CROSS SECTION 12.00 EXTENDED 0.04 FEET

STA 2000 IS LOCATED ON MAP WITH TIC MARK

12.00	5.04	1975.04	0.00	1975.00	1975.31	0.27	0.00	0.00	1972.59
12000.	1819.	8667.	1514.	816.	1897.	433.	0.	0.	1970.00
0.00	2.23	4.57	3.50	0.123	0.123	0.123	0.000	1970.00	2000.00
0.024150	0.	0.	0.	0	0	3	0.00	1301.61	3301.61

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

     Charlston  Overflow
SUMMARY PRINTOUT TABLE  150

      SECNO       XLCH       ELTRD      ELLC       ELMIN       Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     12.000       0.00       0.00       0.00     1970.00    1500.00    1972.45       0.00    1972.52     237.87       2.13     702.96     97.26
     12.000       0.00       0.00       0.00     1970.00   12000.00    1975.04       0.00    1975.31     241.50       4.57    3145.78    772.13

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     Charlston  Overflow
SUMMARY PRINTOUT TABLE  150

      SECNO         Q          CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
     12.000     1500.00     1972.45       0.00       0.00      -2.55     573.57       0.00
     12.000    12000.00     1975.04       2.59       0.00       0.04    1301.61       0.00

1
 18-FEB-88    15:47:01                                                                                                          PAGE     7


 SUMMARY OF ERRORS AND SPECIAL NOTES

1
 18-FEB-88    15:47:18                                                                                                          PAGE     1


**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************


EOF..
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```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.16 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.080    0.050    0.050      0.1       0.3
QT       4    2200     3800     6000     15400
ET                                  7.1                 2900
K1 12.16         7    5230     7050
K2                                                          15
GR1791.0     1830   1790.0     2000   1787.0     5230   1786.5     7050   1789.0     7440
GR1790.0     7520   1792.0     7950
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.16 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.16 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.16 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1

ER
EOF..
```

225

1 **
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 28-DEC-87 TIME 01:53:23 *
****

****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
****


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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X         X     X              X     X
X     X  X         X                    X     X
XXXXXXX  XXXX      X           XXXXX    XXXXX
X     X  X         X                    X
X     X  X         X     X              X
X     X  XXXXXXX   XXXXX                XXXXXXX
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1
28-DEC-87 01:53:24 PAGE 1

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**********************************************

T1        CORECO/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.16 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.005000      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.080     0.050     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       4.000  2200.000  3900.000  6300.000 15400.000     0.000     0.000     0.000     0.000     0.000
ET       0.000     0.000     0.000     0.000     7.100     0.000  2900.000     0.000     0.000     0.000
X1      12.160     7.000  5230.000  7050.000     0.000     0.000     0.000     0.000     0.000     0.000
X2       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR    1791.000  1830.000  1790.000  2000.000  1787.000  5230.000  1788.500  7050.000  1789.000  7440.000
GR    1790.000  7520.000  1792.000  7850.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

1
28-DEC-87 01:53:24 PAGE 2

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
```

Q	WLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST	

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.16	1.24	1788.24	0.00	0.00	1788.26	0.03	0.00	0.00	1787.00
2200.	785.	1415.	0.	821.	926.	0.	0.	0.	1788.50
0.00	0.96	1.53	0.00	0.000	0.050	0.050	0.000	1787.00	3900.07
0.005033	0.	0.	0.	0	0	5	0.00	2828.68	6728.75

FLOW DISTRIBUTION FOR SECNO= 12.16 CWSEL= 1788.24

STA=	3900.	5230.	7050.
PER Q=	35.7	64.3	
AREA=	821.3	925.6	
VEL=	1.0	1.5	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.16 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.16	1.52	1788.52	0.00	0.00	1788.55	0.04	0.00	0.00	1787.00
3800.	1350.	2450.	0.	1236.	1393.	0.	0.	0.	1788.50
0.00	1.09	1.76	0.32	0.000	0.050	0.050	0.000	1787.00	3598.70
0.005008	0.	0.	0.	0	0	6	0.00	3463.10	7061.91

FLOW DISTRIBUTION FOR SECNO= 12.16 CWSEL= 1788.52

```
 STA=     3599.     5230.     7050.
   PER Q=     35.5      64.5
    AREA=   1235.8    1392.5
     VEL=      1.1       1.8

1
  28-DEC-87     01:53:24                                                                    PAGE     5


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1         CCRFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 12.16 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       4.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  28-DEC-87     01:53:24                                                                    PAGE     6

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

   *PROF 3

   CCHV=   0.100  CEHV=   0.300
   *SECNO 12.160
   2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
       12.16      1.77   1788.77      0.00   1788.82      0.05      0.00      0.00   1787.00
        6000.     2039.     3946.      15.     1678.     1848.      28.        0.        0.   1788.50
         0.00      1.22      2.13      0.55    0.080     0.050     0.050     0.000  1787.00   3329.01
    0.005053        0.        0.        0.        0         0         5      0.00   3928.18   7257.19
0
   FLOW DISTRIBUTION FOR SECNO=     12.16          CWSEL=   1788.77

   STA=     3329.     5230.     7050.     7257.
     PER Q=     34.0      65.8       0.3
      AREA=   1678.2    1848.4      27.5
       VEL=      1.2       2.1       0.5

1
  28-DEC-87     01:53:24                                                                    PAGE     7


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
```

```
T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.16 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       5.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCH      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     COPAR     TOPWID     ENDST

*PROF 4

CCHV=   0.100  CEHV=   0.300
*SECNO 12.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3470 ENCROACHMENT STATIONS=     2900.0     7850.0  TYPE=      1  TARGET=    -2900.000
    12.16       2.48   1789.48      0.00   1788.24   1789.59      0.10      0.00      0.00   1787.00
 15400.       5359.      9546.       495.      3265.     3155.       295.       0.        0.   1788.50
     0.00       1.64      3.03      1.58      0.080     0.050     0.050     0.000   1787.00   2900.00
 0.004977       0.        0.        0.          0         0        20       0.00   4578.68   7478.68

FLOW DISTRIBUTION FOR SECNO=     12.16          CWSEL=   1789.48

STA=     2900.     5230.     7050.     7440.     7479.
  PER Q=     34.8      62.0       3.2       0.0
  AREA=   3265.5    3155.0     286.1       9.3
   VEL=      1.6       3.0       1.7       0.8
```



```
  ************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

  Overflow Cross Sectior

SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD     ELLC      ELMIN     Q         CWSEL     CRIWS     EG        10K*S     VCH       AREA      .01K
     12.160      0.00      0.00      0.00   1787.00   2200.00   1788.24      0.00   1788.26     50.33      1.53   1746.86    310.11
```

12.150	0.00	0.00	0.00	1787.00	3800.00	1788.52	0.00	1788.55	50.08	1.76	2628.46	536.98
12.150	0.00	0.00	0.00	1787.00	6000.00	1788.77	0.00	1788.82	50.53	2.13	3554.17	844.06
12.150	0.00	0.00	0.00	1787.00	15400.00	1789.48	0.00	1789.59	49.77	3.03	6715.90	2182.94

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.150	2200.00	1788.24	0.00	0.00	0.00	2828.68	0.00
12.150	3800.00	1788.52	0.28	0.00	0.00	3463.10	0.00
12.150	6000.00	1788.77	0.25	0.00	0.00	3928.18	0.00
12.150	15400.00	1789.48	0.72	0.00	1.25	4578.68	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth
J1       0         2                    0.0053
J2       1                  -1
J3     150
NC 0.050    0.060    0.050      0.1       0.3
ST       4    2200     3800     6000    15400
X1 12.35         5     2240     6160
X2                                                                      15
GR1800.0     2000  1795.0     2240  1792.5     4900  1795.0     6160  1800.0     6900
EJ
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth
J1     -10         3                    0.0053
J2       2                  -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth
J1     -10         4                    0.0053
J2       3                  -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth
J1     -10         5                    0.0053
J2      15                  -1
```

```
ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:11:55          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X     X
XXXXXXX  XXXX      X           XXXXX  XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX    XXXXX            XXXXXXX
```



```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.35 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        2.        0.        0.  0.005300      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.050     0.060     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  2200.000  3900.000  6000.000 15400.000     0.000     0.000     0.000     0.000     0.000
X1     12.350     5.000  2240.000  6160.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1800.000  2000.000  1795.000  2240.000  1792.500  4900.000  1795.000  6160.000  1800.000  6900.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
```

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.350
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.35	1.31	1793.81	0.00	0.00	1793.85	0.04	0.00	0.00	1795.00
2200.	0.	2200.	0.	0.	1348.	0.	0.	0.	1795.00
0.00	0.00	1.63	0.00	0.050	0.050	0.060	0.000	1752.50	3504.67
0.005293	0.	0.	0.	0	0	6	0.00	2056.28	5560.95

FLOW DISTRIBUTION FOR SECNO= 12.35 CWSEL= 1793.81

STA= 3505. 6160.
PER Q= 100.0
AREA= 1348.2
VEL= 1.6

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.35 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005300	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IRW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.350
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.35	1.61	1794.11	0.00	0.00	1794.17	0.05	0.00	0.00	1795.00
3800.	0.	3800.	0.	0.	2045.	0.	0.	0.	1795.00
0.00	0.00	1.86	0.00	0.050	0.050	0.060	0.000	1792.50	3181.65
0.005200	0.	0.	0.	0	0	4	0.00	2532.30	5713.96

FLOW DISTRIBUTION FOR SECNO= 12.35 CWSEL= 1794.11

STA= 3182. 6160.

PER Q= 100.0
AREA= 2044.8
VEL= 1.9

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 31,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECO/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.35 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	3.	0.	0.005300	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 12.350
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.35	1.92	1794.42	0.00	0.00	1794.48	0.07	0.00	0.00	1795.00
6000.	0.	6000.	0.	0.	2880.	0.	0.	0.	1795.00
0.00	0.00	2.08	0.00	0.050	0.050	0.060	0.000	1752.59	2860.64
0.005203	0.	0.	0.	0	0	4	0.00	3005.08	5865.92

FLOW DISTRIBUTION FOR SECNO= 12.35 CWSEL= 1794.42

STA= 2861. 6160.
PER Q= 100.0
AREA= 2879.6
VEL= 2.1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 31,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

```
T1        CORRCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.35 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       5.        0.        0.  0.005300      0.00      0.0       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 12.350
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     12.35      2.68   1795.18      0.00      0.00   1795.30      0.12      0.00      0.00   1795.00
   15400.        0.     15399.        1.        1.      5602.        2.        0.        0.   1795.00
      0.00      0.43      2.75      0.36     0.050     0.050     0.060     0.000   1792.50   2231.40
  0.005313        0.        0.        0.         0         0         6      0.00   3955.12   6186.52
 FLOW DISTRIBUTION FOR SECNO=     12.35          CWSEL=   1795.18

 STA=    2231.     2240.     6160.     6187.
   PER Q=     0.0     100.0       0.0
    AREA=     0.8    5602.5       2.4
     VEL=     0.4       2.7       0.4
```



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 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section
 SUMMARY PRINTOUT TABLE  150

       SECNO      XLCH      ELTRD      ELLC      ELMIN        Q         CWSEL     CRIWS      EG        10K*S     VCH       AREA      .01K
       12.350     0.00      0.00       0.00     1792.50    2200.00    1793.81     0.00     1793.85    52.93     1.63     1348.18    302.39
       12.350     0.00      0.00       0.00     1792.50    3800.00    1794.11     0.00     1794.17    52.00     1.86     2044.82    526.98
       12.350     0.00      0.00       0.00     1792.50    6000.00    1794.42     0.00     1794.48    52.03     2.08     2879.62    831.83
       12.350     0.00      0.00       0.00     1792.50   15400.00    1795.18     0.00     1795.30    53.13     2.75     5605.61   2112.81
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.350	2200.00	1793.81	0.00	0.00	0.00	2056.28	0.00
12.350	3800.00	1794.11	0.30	0.00	0.00	2532.30	0.00
12.350	6000.00	1794.42	0.30	0.00	0.00	3005.08	0.00
12.350	15400.00	1795.18	0.76	0.00	0.00	3955.12	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.58 - Normal Depth
J1       0          2                    0.0053
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1      0.3
ST       4     2200     3800     6000    15400
X1  12.58          5     2170     5830
X2                                                                          15
GR1805.0     2000  1800.0     2170  1796.8     3530  1800.0     5830  1803.0     6210
EJ
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.58 - Normal Depth
J1     -10          3                    0.0053
J2       2                    -1
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.58 - Normal Depth
J1     -10          4                    0.0053
J2       3                    -1
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.58 - Normal Depth
J1     -10          5                    0.0053
J2      15                    -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:12:09          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X           XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX    XXXXX            XXXXXXX
```



```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.58 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        2.        0.        0.  0.005300      0.00      0.0       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.050     0.050     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  2200.000  3900.000  6000.000 15400.000     0.000     0.000     0.000     0.000     0.000
X1     12.580     5.000  2170.000  5830.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1805.000  2000.000  1800.000  2170.000  1796.800  3530.000  1800.000  5830.000  1803.000  6210.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.580
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.58	1.48	1798.28	0.00	0.00	1799.32	0.05	0.00	0.00	1800.00
2200.	0.	2200.	0.	0.	1245.	0.	0.	0.	1800.00
0.00	0.00	1.77	0.00	0.050	0.050	0.050	0.000	1796.80	2902.92
0.005305	0.	0.	0.	0	0	6	0.00	1687.59	4590.51

FLOW DISTRIBUTION FOR SECNO= 12.58 CWSEL= 1798.28

STA= 2903. 5830.
PER C= 100.0
AREA= 1244.9
VEL= 1.8

****
HEC2 RELEASE DATED NOV 76 LEDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.58 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005300	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.580
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.58	1.81	1798.61	0.00	0.00	1798.67	0.06	0.00	0.00	1800.00
3800.	0.	3800.	0.	0.	1872.	0.	0.	0.	1800.00
0.00	0.00	2.03	0.00	0.050	0.050	0.050	0.000	1796.80	2761.02
0.005331	0.	0.	0.	0	0	6	0.00	2069.45	4830.47

FLOW DISTRIBUTION FOR SECNO= 12.58 CWSEL= 1798.61

STA= 2761. 5830.

PER G= 100.0
AREA= 1272.2
VEL= 2.0

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.58 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.005300	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 12.580
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.58	2.15	1798.95	0.30	0.00	1799.03	0.08	0.00	0.00	1800.00
6000.	0.	6000.	0.	0.	2634.	0.	0.	0.	1800.00
0.00	0.00	2.28	0.00	0.050	0.050	0.050	0.000	1756.80	2617.83
0.005346	0.	0.	0.	0	0	6	0.00	2454.80	5072.63

FLOW DISTRIBUTION FOR SECNO= 12.58 CWSEL= 1798.95

STA= 2618. 5830.
PER Q= 100.0
AREA= 2634.3
VEL= 2.3

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

```
T1         CCRECD/CDE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.58 - Normal Depth

J1  ICHECK      INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL      FQ
      -10.        5.         0.        0.   0.005300        0.00       0.0         0.      0.000     0.000
J2  NPROF       IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS   BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XAL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 12.580
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    12.58       3.06   1799.86      0.00      0.00   1799.99      0.13      0.00      0.00   1800.00
 15400.          0.     15400.        0.        0.     5359.        0.        0.        0.   1800.00
     0.00       0.00      2.87      0.00     0.050     0.050     0.050     0.000   1796.80   2229.04
0.005301          0.        0.        0.         0         0         5      0.00   3501.11   5730.15
}
 FLOW DISTRIBUTION FOR SECNO=     12.58          CWSEL=   1799.86
 STA=     2229.      5830.
   PER Q=    100.0
    AREA=   5358.5
     VEL=      2.9
```



```
 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Sectior

 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD     ELLC      ELMIN      Q         CWSEL     CRIWS     EG        10K*S     VCH       AREA      .01K
     12.580      0.00      0.00      0.00      1796.80   2200.00   1798.28      0.00   1798.32     53.05      1.77   1244.88    302.05
     12.580      0.00      0.00      0.00      1796.80   3800.00   1798.61      0.00   1798.67     53.31      2.03   1872.15    520.45
     12.580      0.00      0.00      0.00      1796.80   6000.00   1798.95      0.00   1799.03     53.46      2.28   2634.30    820.63
     12.580      0.00      0.00      0.00      1796.80  15400.00   1799.86      0.00   1799.99     53.01      2.87   5358.51   2115.07
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.580	2200.00	1798.28	0.00	0.00	0.00	1687.59	0.00
12.580	3800.00	1798.61	0.33	0.00	0.00	2069.45	0.00
12.580	6000.00	1798.95	0.34	0.00	0.00	2454.80	0.00
12.580	15400.00	1799.86	0.91	0.00	0.00	3501.11	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.76 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1       0.3
QT       4     2200     3800     6000     15400
K1 12.76           5     2500     5880
K2                                                                      15
GR1810.0     2000   1805.0     2500   1802.5     3920   1805.0     5680   1810.0     5980
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.76 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.76 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.76 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:12:24          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X          XXXXX   XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX    XXXXX            XXXXXXX
```



```
 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************

 T1        CCRFCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 12.76 - Normal Depth

 J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         2.         0.         0.  0.005000       0.00       0.0        0.         0.000      0.000

 J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     150.000    0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

 NC      0.050      0.050      0.050      0.100      0.300      0.000      0.000      0.000      0.000      0.000
 GT   4000.000   2200.000   3800.000   6000.000  15400.000      0.000      0.000      0.000      0.000      0.000
 X1     12.760      5.000   2500.000   5880.000      0.000      0.000      0.000      0.000      0.000      0.000
 X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
 GR   1810.000   2000.000   1805.000   2500.000   1802.500   3920.000   1805.000   5880.000   1810.000   5980.000
 EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.760
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.76	1.41	1803.91	0.00	0.00	1803.95	0.04	0.00	0.00	1805.00
2200.	0.	2200.	0.	0.	1336.	1.	0.	0.	1805.00
0.00	0.00	1.65	0.00	0.050	0.050	0.050	0.000	1802.50	3121.60
0.004917	0.	0.	0.	0	0	5	0.00	1900.42	5022.02

3
FLOW DISTRIBUTION FOR SECNO= 12.76 CWSEL= 1803.91

STA= 3122. 5880.
PER Q= 100.0
AREA= 1335.5
VEL= 1.6

1
31-AUG-87 00:12:24 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.76 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.760
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.76	1.72	1804.22	0.00	0.00	1804.28	0.06	0.00	0.00	1805.00
3800.	0.	3800.	0.	0.	2000.	0.	0.	0.	1805.00
0.00	0.00	1.90	0.00	0.050	0.050	0.050	0.000	1802.50	2942.99
0.004998	0.	0.	0.	0	0	4	0.00	2325.57	5268.55

3
FLOW DISTRIBUTION FOR SECNO= 12.76 CWSEL= 1804.22

STA= 2943. 5880.

PER Q= 1000.0
AREA= 2000.0
VEL= 1.9

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.76 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	1.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 12.760
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.76	2.04	1804.54	0.00	0.00	1804.61	0.07	0.00	0.00	1805.00
6000.	0.	6000.	0.	0.	2813.	0.	0.	0.	1805.00
0.00	0.00	2.13	0.00	0.050	0.050	0.050	0.000	1802.50	2761.33
0.005019	0.	0.	0.	0	0	5	0.00	2757.97	5819.29

FLOW DISTRIBUTION FOR SECNO= 12.76 CWSEL= 1804.54

STA= 2761. 5880.
PER Q= 100.0
AREA= 2812.8
VEL= 2.1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

```
T1        CCRECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.76 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
     -10.        5.         0.         0.   0.005000       0.00       0.0        0.       0.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.001     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
   Q          OLOB       OCH        QROB       ALOB       ACH        ARCP       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 12.760
 2096 WSEL NOT GIVEN.AVG OF MAX.MIN USED
    12.76       2.84   1805.34       0.00       0.00   1805.47       0.13       0.00       0.00   1805.00
   15400.         4.     15396.         1.         6.     5374.         1.         0.         0.    1805.00
     9.00       0.65       2.86       0.54      0.050      0.050      0.050      0.000    1802.50   2466.00
 0.005007         0.         0.         0.          0          0          6       0.00    3420.80   5886.80

 FLOW DISTRIBUTION FOR SECNO=     12.76          CWSEL=   1805.34

 STA=    2466.     2500.     5880.     5887.
   PER Q=       0.0     100.0       0.0
    AREA=       5.8    5374.1       1.2
     VEL=       0.6       2.9       0.6
```



```
 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section

 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     12.760      0.00       0.00       0.00    1802.50    2200.00    1803.91       0.00    1803.95      49.17      1.65    1335.54     313.74
     12.760      0.00       0.00       0.00    1802.50    3800.00    1804.22       0.00    1804.28      49.98      1.90    1999.95     537.52
     12.760      0.00       0.00       0.00    1802.50    6000.00    1804.54       0.00    1804.61      50.18      2.13    2812.84     847.03
     12.760      0.00       0.00       0.00    1802.50   15400.00    1805.34       0.00    1805.47      50.07      2.86    5381.02    2176.43
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.750	2200.00	1803.91	0.00	0.00	0.00	1900.42	0.00
12.760	3800.00	1804.22	0.31	0.00	0.00	2325.57	0.00
12.760	6000.00	1804.54	0.32	0.00	0.00	2757.97	0.00
12.760	15400.00	1805.34	0.80	0.00	0.00	3420.80	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.97 - Normal Depth
J1       0          2                    0.0067
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1       0.3
QT       4    2200     3800     6000     15400
X1  12.97          7     3490     4500
X2                                                                                  15
GR1817.0     2000   1815.0     2310   1810.0     3490   1808.5     4010   1810.0     4500
GR1815.0     5250   1816.0     5310
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.97 - Normal Depth
J1    -10          3                    0.0067
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.97 - Normal Depth
J1    -10          4                    0.0067
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.97 - Normal Depth
J1    -10          5                    0.0067
J2      15                    -1
```

```
ER
EOF..
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1 **
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 31-AUG-87 TIME 00:12:38 *
****

****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
****


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X     X
XXXXXXX  XXXX      X          XXXXX   XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX   XXXXX              XXXXXXX
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1
31-AUG-87 00:12:39

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.97 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.006700	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.050	0.050	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	4.000	2200.000	3600.000	6000.000	15400.000	0.000	0.000	0.000	0.000	0.000
X1	12.970	7.000	3490.000	4500.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1817.000	2000.000	1815.000	2310.000	1810.000	3490.000	1808.500	4010.000	1810.000	4500.000
GR	1815.000	5250.000	1816.000	5310.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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31-AUG-87 00:12:39

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.97	1.69	1810.19	0.00	0.00	1810.27	0.08	0.00	0.00	1810.00
2200.	2.	2197.	1.	4.	945.	3.	0.	0.	1810.00
0.00	0.50	2.32	0.50	0.050	0.050	0.050	0.000	1808.50	3446.15
0.006681	0.	0.	0.	0	0	4	0.00	1981.72	4527.87

FLOW DISTRIBUTION FOR SECNO= 12.97 CWSEL= 1810.19

STA=	3446.	3490.	4500.	4528.
PER Q=	0.1	99.8	0.1	
AREA=	4.1	945.1	2.6	
VEL=	0.5	2.3	0.5	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.97 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.006700	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.97	2.04	1810.54	0.00	0.00	1810.66	0.13	0.00	0.00	1810.00
3800.	34.	3744.	22.	34.	1300.	22.	0.	0.	1810.00
0.00	1.01	2.88	1.01	0.050	0.050	0.050	0.000	1808.50	3363.27
0.006709	0.	0.	0.	0	0	5	0.00	1217.28	4580.55

FLOW DISTRIBUTION FOR SECNO= 12.97 CWSEL= 1810.54

```
 STA=    3363.      3490.      4500.      4581.
   PER G=      0.9       98.5        0.6
    AREA=     34.0     1299.9       21.6
     VEL=      1.0        2.9        1.0

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 31-AUG-87    00:12:39                                                                    PAGE     5


 ********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ********************************************

 T1        CORECD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 12.97 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.        4.        3.        0.  0.006700      0.00      0.3       0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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 31-AUG-87    00:12:39                                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IOC       ICONT     CORAR     TOPWID       ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 12.970
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     12.97      2.42   1810.92      0.00      0.00   1811.09      0.18      0.00      0.00   1810.00
     6000.       143.      5766.       91.       99.      1682.       63.       0.        0.   1810.00
      0.00      1.45      3.43      1.45     0.050     0.050     0.050     0.000   1808.50   3274.02
  0.006742        0.        0.        0.         0         0         5      0.00   1363.25   4637.27
1
 FLOW DISTRIBUTION FOR SECNO=     12.97          CWSEL=   1810.92

 STA=    3274.      3490.      4500.      4637.
   PER G=      2.4       96.1        1.5
    AREA=     98.8     1681.8       62.8
     VEL=      1.4        3.4        1.4

1
 31-AUG-87    00:12:39                                                                    PAGE     7


 ********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ********************************************
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T1       CORPS/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       Overflow Cross Section 12.97 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.       5.         0.         0.   0.006700       0.00       0.0        0.       0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
 31-AUG-87    00:12:39                                                                          PAGE     8

   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 12.970
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    12.97      3.52  1812.02      0.00      0.00  1812.35      0.33      0.00      0.00  1810.00
 15400.     1135.    13461.      753.      483.     2801.      307.        0.        0.  1810.00
     0.00      2.45      4.81      2.45     0.050     0.050     0.050     0.000  1808.50  3012.44
 0.006708        0.        0.        0.         0         0         5      0.00  1791.05  4803.53
3
 FLOW DISTRIBUTION FOR SECNO=     12.97          CWSEL=   1812.02

 STA=     3012.     3490.     4500.     4804.
   PER G=      7.7      87.4       4.9
    AREA=    483.2    2801.3     307.1
     VEL=      2.5       4.8       2.5

1
 31-AUG-87    00:12:39                                                                          PAGE     9


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section
 SUMMARY PRINTOUT TABLE  150

       SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
      12.970      0.00       0.00       0.00    1808.50    2200.00    1810.19       0.00    1810.27      66.81       2.32     951.81     269.15
      12.970      0.00       0.00       0.00    1808.50    3800.00    1810.54       0.00    1810.66      67.08       2.88    1355.50     463.97
      12.970      0.00       0.00       0.00    1808.50    6000.00    1810.92       0.00    1811.09      67.42       3.43    1843.43     730.73
      12.970      0.00       0.00       0.00    1808.50   15400.00    1812.02       0.00    1812.35      67.08       4.81    3591.54    1880.23
```

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.970	2200.00	1810.19	0.00	0.00	0.00	1081.72	0.00
12.970	3800.00	1810.54	0.35	0.00	0.00	1217.28	0.00
12.970	6000.00	1810.92	0.38	0.00	0.00	1363.25	0.00
12.970	15400.00	1812.02	1.11	0.00	0.00	1791.09	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:47:45          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X        X     X            X     X
X      X  X        X                  X     X
XXXXXXXX  XXXX     X          XXXXX    XXXXX
X      X  X        X                  X
X      X  X        X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
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  18-FEB-88     15:47:46                                                    PAGE     1


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.012600        0.00      0.0       0.  1850.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


NC      0.123     0.123     0.022     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      4.000  7200.000 10000.000 12500.000 17000.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     7.100     7.100     7.100     7.100     0.000  2000.000  8640.000     0.000     0.000
          ************************************************
          STA 2000 IS LOCATED ON MAP WITH TIC MARK
          ************************************************
X1     13.000    38.000  4340.000  4356.200     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1854.000  2000.000  1853.000  2400.000  1853.000  2800.000  1850.000  3040.000  1847.000  3450.000
GR   1847.100  3700.000  1846.000  3950.000  1848.000  4340.000  1843.600  4340.100  1843.600  4346.100
GR   1848.100  4346.200  1848.000  4350.000  1843.600  4350.100  1843.600  4356.100  1848.000  4356.200
GR   1847.100  4560.000  1846.000  4820.000  1844.000  5070.000  1846.000  5560.000  1846.000  5720.000
```

GR	1845.000	5870.000	1846.000	6000.000	1845.000	6100.000	1842.000	6750.000	1845.000	7100.000
GR	1846.700	7900.000	1850.000	8640.000	1847.700	9180.000	1848.000	9870.000	1850.800	10350.000
GR	1850.100	10900.000	1851.000	11400.000	1850.000	11770.000	1855.000	12500.000	1854.000	13400.300
GR	1854.000	13650.000	1855.000	13870.000	1857.000	14040.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 13.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2000.0 8640.0 TYPE= 1 TARGET= 6640.000

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

13.00	3.90	1845.90	0.00	0.00	1846.01	0.11	0.00	0.00	1548.00
7200.	0.	253.	6947.	0.	28.	3384.	0.	0.	1848.00
0.00	0.00	9.08	2.05	0.123	0.022	0.123	0.000	1842.00	4340.05
0.012581	3.	0.	0.	0	0	7	0.00	2425.43	7469.75

FLOW DISTRIBUTION FOR SECNO= 13.00 CWSEL= 1845.90

STA=	4340.	4356.	5070.	5535.	5870.	5987.	6100.	6750.	7100.	7470.
PER Q=	3.5	4.1	8.3	0.7	0.6	0.4	52.6	28.3	1.8	
AREA=	27.8	225.1	441.3	60.5	52.4	40.3	1558.7	839.3	166.0	
VEL=	9.1	1.3	1.3	0.8	0.8	0.8	2.4	2.4	0.8	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 13

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.012600	0.00	0.0	0.	1850.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

```
    Q           GLOB        GCH         GROB        ALOB        ACH         AROB        VOL         TWA    LEFT/RIGHT
    TIME        VLOB        VCH         VROB        XNL         XNCH        XNR         WTN         ELMIN       SSTA
    SLOPE       XLOBL       XLCH        XLOBR       ITRIAL      IDC         ICONT       CORAR       TOPWID      ENDST

 *PROF 2
 *SECNO 13.000
 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=     2000.0     8640.0  TYPE=      1  TARGET=     6640.000
           **************************************************
           STA 2000 IS LOCATED ON MAP WITH TIC MARK
           **************************************************
     13.00        4.28   1846.28        0.00   1845.90   1846.40        0.12        0.00        0.00   1848.00
   10000.           7.         312.        9681.          18.          33.        4427.          0.          0.   1848.00
      0.00        0.37        9.60        2.19       0.123       0.022       0.123       0.000    1842.00    3879.05
 0.012528          0.          0.          0.           0           0           6        0.00    3020.58    7628.64
1
 FLOW DISTRIBUTION FOR SECNO=     13.00          CWSEL=   1846.28

 STA=     3879.     4005.     4356.     5070.     5560.     6100.     6750.     7100.     7629.
   PER Q=     0.1       3.1       5.2      10.0       3.7      48.4      26.1       3.4
     AREA=   17.9      32.5     331.4     629.1     343.3    1809.5     974.3     339.3
      VEL=    0.4       9.6       1.6       1.6       1.1       2.7       2.7       1.0

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  18-FEB-88     15:47:46                                                                    PAGE     5


 **************************************************
   HEC2 RELEASE DATED NOV 76 LEDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1          Clark County, Nevada COE - 100 year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Overflow X-Sec. 13

 J1  ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      Q           WSEL       FQ
        0.         4.          0.         0.   0.012600        0.00       0.0         0.   1850.000      0.000
 J2  NPROF       IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW         CHNIM      ITRACE
       3.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
  18-FEB-88     15:47:46                                                                    PAGE     6

    SECNO       DEPTH       CWSEL       CRIWS       WSELK       EG          HV          HL          OLOSS    BANK ELEV
    Q           QLOB        QCH         QROB        ALOB        ACH         AROB        VOL         TWA    LEFT/RIGHT
    TIME        VLOB        VCH         VROB        XNL         XNCH        XNR         WTN         ELMIN       SSTA
    SLOPE       XLOBL       XLCH        XLOBR       ITRIAL      IDC         ICONT       CORAR       TOPWID      ENDST

 *PROF 3
 *SECNO 13.000
 3265 DIVIDED FLOW
```

```
 3470 ENCROACHMENT STATIONS=     2000.0     8640.0  TYPE=      1  TARGET=     6640.000
             ************************************************
             STA 2000 IS LOCATED ON MAP WITH TIC MARK
             ************************************************
      13.00       4.56  1846.56      0.00  1845.90  1846.69      0.12      0.00      0.00  1848.00
     12500.        41.      358.     12102.      70.       36.     5252.        0.        0.  1848.00
       0.00       0.58      9.96      2.30     0.123     0.022     0.123     0.000   1842.00  3609.71
  0.012576         0.        0.        0.         0         0         6      0.00   3330.73  7742.85
1
 FLOW DISTRIBUTION FOR SECNO=      13.00          CWSEL=   1846.56

 STA=     3810.     4059.     4356.     5070.     5560.     6000.     6750.     7100.     7743.
   PER Q=     0.3       2.9       5.9      11.2       4.0      46.7      24.5       4.6
    AREA=    70.0      35.9     431.2     765.0     386.9    2095.9    1071.4     501.8
     VEL=     0.6      10.0       1.7       1.8       1.3       2.8       2.9       1.1

1
  18-FEB-88    15:47:46                                                              PAGE     7


 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 T1          Clark County, Nevada COE - 500 year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Overflow X-Sec. 13

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q          WSEL      FQ
        0.        5.        0.        0.  0.012600       0.00      0.0       0.  1850.000      0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  18-FEB-88    15:47:46                                                              PAGE     8

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 *PROF 4

 *SECNO 13.000

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=     2000.0     8640.0  TYPE=      1  TARGET=     6640.000
             ************************************************
             STA 2000 IS LOCATED ON MAP WITH TIC MARK
             ************************************************
      13.00       4.98  1846.98      0.00  1845.90  1847.12      0.13      0.00      0.00  1848.00
     17000.        180.      426.     16393.     215.       41.     6597.        0.        0.  1848.00
       0.00       0.84     10.37      2.48     0.123     0.022     0.123     0.000   1842.00  3704.46
  0.012485         0.        0.        0.         0         0         5      0.00   3756.58  7871.84
```

FLOW DISTRIBUTION FOR SECNO= 13.00 CWSEL= 1846.98

STA=	3704.	4142.	4356.	5070.	5560.	5870.	6100.	6750.	7100.	7800.	7872.
PER Q=	1.1	2.5	6.8	12.2	3.5	3.5	41.3	22.2	6.8	0.0	
AREA=	214.6	41.1	621.0	971.3	379.5	340.9	2263.4	1218.8	792.5	10.1	
VEL=	0.8	10.4	1.9	2.1	1.6	1.8	3.1	3.1	1.5	0.4	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 13

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13.000	0.00	0.00	0.00	1842.00	7200.00	1845.90	0.00	1846.01	125.81	9.08	3411.38	641.90
13.000	0.00	0.00	0.00	1842.00	10000.00	1846.28	0.00	1846.40	125.28	9.60	4477.32	893.44
13.000	0.00	0.00	0.00	1842.00	12500.00	1846.56	0.00	1846.69	125.76	9.96	5358.10	1114.63
13.000	0.00	0.00	0.00	1842.00	17000.00	1846.98	0.00	1847.12	124.85	10.37	6853.20	1521.43

Overflow X-Sec. 13

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
13.000	7200.00	1845.90	0.00	0.00	0.00	2425.43	0.00
13.000	10000.00	1846.28	0.39	0.00	0.39	3020.98	0.00
13.000	12500.00	1846.56	0.28	0.00	0.66	3330.73	0.00
13.000	17000.00	1846.98	0.42	0.00	1.08	3756.58	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****

```
      HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
      ERROR CORR -   01,02,03,04,05
      MODIFICATION -   50,51,52,53,54,55
    ..................................................


EOF..
```

```
                3
     13.0  ************************************************************
     13.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
     13.0  ************************************************************
T1             Clark County, Nevada COE -  25 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 13
J1                2                0.0126                                  1850
J2       1                -1
J3     150
NC  0.123   0.123    0.022
JT       4    7200    10000    12500    17000
ET            7.1      7.1      7.1      7.1             2000     8640
X1       13     38     4340  4356.2
X2                                                                        15.0
GR   1854     2000     1853     2400     1853     2800  1850.0     3040  1847.0     3450
GR   1847     3700     1846     3950     1848     4340  1843.6  4340.1  1843.6  4346.1
GR   1848  4346.2     1848     4350  1843.6  4350.1  1843.6  4356.1    1848  4356.2
GR   1847     4560     1846     4820     1844     5070  1846     5560  1846.0     5720
GR   1845     5870     1846     6000     1845     6100  1842     6750    1845     7100
GR1846.7     7800     1850     8640   1847.7     9180  1848     9870  1850.8    10350
GR   1850    10900     1851    11400     1850    11770  1855    12500    1854    13400
GR   1854    13650     1855    13870     1857    14040
EJ
T1             Clark County, Nevada COE -  50 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 13
J1                3                0.0126                                  1850
J2       2                -1
T1             Clark County, Nevada COE - 100 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 13
J1                4                0.0126                                  1850
J2       3                -1
T1             Clark County, Nevada COE - 500 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 13
J1                5                0.0126                                  1850
J2    15                -1


ER
EOF..
```

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1      0.3
ET       4     2200     3800     6000    15400
X1 13.26         7     4170     5490
X2                                                                        15
GR1828.0     1530  1824.0     1870  1820.0     4170  1818.0     4380  1820.0     5490
GR1825.0     6200  1826.0     6370
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10          5                    0.0050
J2      15                    -1


ER
EOF..
```

```
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1      0           2                    0.0050
J2      1                -1
J3    150
NC 0.050   0.050    0.050      0.1       0.3
QT      4    2200     3900     6300     15400
X1 13.26        7     4170     5490
X2                                                                          15
GR1828.0    1530  1824.0     1870  1820.0     4170  1818.0     4380  1820.0     5490
GR1825.0    6200  1826.0     6370
EJ
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10       3                    0.0050
J2      2                -1
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10       4                    0.0050
J2      3                -1
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10       5                    0.0050
J2     15                -1


ER
EOF..
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```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
VC 0.050    0.050    0.050      0.1       0.3
QT       4     2200     3800     6000     15400
K1 13.26          7     4170     5490
K2                                                                          15
GR1828.0     1530   1824.0     1870   1920.0     4170   1818.0     4380   1820.0     5490
GR1825.0     6200   1826.0     6370
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          5                    0.0050
J2       15                   -1
```

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ER
EOF..
```

U.S. ARMY CORPS OF ENGINEERS
THE HYDROLOGIC ENGINEERING CENTER
609 SECOND STREET, SUITE D
DAVIS, CALIFORNIA 95616
(916) 440-2105 (FTS) 448-2105


```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:12:53          *
 *************************************************

      X     X  XXXXXXX   XXXXX              XXXXX
      X     X  X        X     X            X     X
      X     X  X        X                  X     X
      XXXXXXX  XXXX     X          XXXXX    XXXXX
      X     X  X        X                  X
      X     X  X        X     X            X
      X     X  XXXXXXX   XXXXX              XXXXXXX

1
  31-AUG-87     00:12:54                                                PAGE     1


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ************************************************

 T1        CCRFCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 13.26 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.005000      0.00      0.0       0.     0.000     0.000

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000   0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 NC      0.050     0.050     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
 QT      4.000  2200.000  3800.000  6000.000 15400.000     0.000     0.000     0.000     0.000     0.000
 X1     13.260     7.000  4170.000  5490.000     0.000     0.000     0.000     0.000     0.000     0.000
 X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
 GR   1828.000  1530.000  1824.000  1870.000  1820.000  4170.000  1818.000  4380.000  1820.000  5490.000
 GR   1825.000  6200.000  1826.000  6370.000     0.000     0.000     0.000     0.000     0.000     0.000
 EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  31-AUG-87     00:12:54                                                PAGE     2

    SEC NO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 13.260
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

13.25	1.83	1819.83	0.00	0.00	1819.89	0.06	0.00	0.00	1820.00
2200.	0.	2200.	0.	0.	1110.	0.	0.	0.	1820.00
0.00	0.00	1.98	0.00	0.050	0.050	0.050	0.000	1818.00	4187.44
0.004995	0.	0.	0.	0	0	5	0.00	1210.35	5397.79

FLOW DISTRIBUTION FOR SECNO= 13.26 CWSEL= 1819.83

STA= 4187. 5490.
PER Q= 100.0
AREA= 1109.7
VEL= 2.0

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 13.26 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	3.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 13.260
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

13.26	2.21	1820.21	0.00	0.00	1820.30	0.09	0.00	0.00	1820.00
3800.	6.	3792.	2.	13.	1601.	3.	0.	0.	1820.00
0.00	0.47	2.37	0.47	0.050	0.050	0.050	0.000	1818.00	4047.45
0.004908	0.	0.	0.	0	0	4	0.00	1472.82	5520.27

FLOW DISTRIBUTION FOR SECNO= 13.26 CWSEL= 1820.21

```
STA=    4047.     4179.     5490.     5520.
  PER Q=     3.2      96.8       0.3
    AREA=   13.1    1601.3       3.2
     VEL=    0.5       2.4       0.5

1
 31-AUG-87     00:12:54                                                                    PAGE     5


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1        CCRECO/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 13.26 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       4.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
 31-AUG-87     00:12:54                                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       ARCE      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     COPAR     TOPWID       ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 13.260
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     13.26      2.57   1820.57      0.00      0.00   1820.69      0.12      0.00      0.00   1820.00
     6000.       85.     5894.       21.       93.     2071.       23.       0.        0.    1820.00
      0.00      0.91      2.85      0.91     0.050     0.050     0.050     0.000   1818.00   3842.84
  0.005030        0.        0.        0.         0         0         5      0.00   1727.95   5570.79

 FLOW DISTRIBUTION FOR SECNO=     13.26          CWSEL=   1820.57

 STA=    3843.     4170.     5490.     5571.
   PER Q=     1.4      98.2       0.3
     AREA=   93.1    2071.0      23.0
      VEL=    0.9       2.8       0.9

1
 31-AUG-87     00:12:54                                                                    PAGE     7


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************
```

```
T1        CCRFCD/CDE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 13.26 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.       5.         0.         0.   0.005000       0.00       0.0        0.       0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```


SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCE	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 4

CCHV=   0.100  CEHV=   0.300
*SECNO 13.260
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    13.26       3.61   1821.61       0.00       0.00   1821.83       0.23       0.00       0.00   1820.00
 15400.       1348.      13719.       333.       741.      3439.       183.         0.         0.   1820.00
     0.00       1.82       3.99       1.82      0.050      0.050      0.050      0.000    1818.00   3246.86
0.005024         0.         0.         0.          0          0          5       0.00    2471.12   5717.98

FLOW DISTRIBUTION FOR SECNO=     13.26          CWSEL=   1821.61

STA=    3247.     4170.     5490.     5718.
 PER Q=     8.8      89.1       2.2
  AREA=   741.0    3439.2     183.0
   VEL=     1.8       4.0       1.8
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

  Overflow Cross Sectior

SUMMARY PRINTOUT TABLE  150
```

SECNO	XLCH	ELTRO	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13.250	0.00	0.00	0.00	1818.00	2200.00	1819.83	0.00	1819.89	49.95	1.98	1109.73	311.27
13.250	0.00	0.00	0.00	1818.00	3800.00	1820.21	0.00	1820.30	49.08	2.37	1617.62	542.43
13.260	0.00	0.00	0.00	1818.00	6000.00	1820.57	0.00	1820.69	50.30	2.85	2187.07	846.01
13.260	0.00	0.00	0.00	1818.00	15400.00	1821.61	0.00	1821.83	50.24	3.99	4363.26	2172.63

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
13.260	2200.00	1819.83	0.00	0.00	0.00	1210.35	0.00
13.260	3800.00	1820.21	0.38	0.00	0.00	1472.82	0.00
13.260	6000.00	1820.57	0.36	0.00	0.00	1727.95	0.00
13.260	15400.00	1821.61	1.04	0.00	0.00	2471.12	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
CCCC      3
CC    14.0  ************************************************
CC    14.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
CC    14.0  ************************************************
T1            Clark County, Nevada COE - 100 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 14
J1               2                    0.0201                              1900
J2     1             -1
J3   150
VC 0.123   0.123    0.123
JT     4   1000     7500
X1  14.0       8     4420     4610
K2                                                                                  15.0
GR  1908    2000     1901     3080     1903     3900     1900     4260     1899     4420
GR  1900    4610     1905     6220     1907     6460
EJ
T1            Clark County, Nevada COE - 500 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 14
J1               3                    0.0201                              1900
J2    15             -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:48:25          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X            X     X
X      X  X         X                  X     X
XXXXXXX   XXXX      X          XXXXX    XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
```



```
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 **************************************************

C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 14

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.        2.         0.         0.   0.020100       0.00       0.0        0.   1900.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
    1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT      4.000   1000.000   7500.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
        ***************************************************
        STA 2000 IS LOCATED ON MAP WITH TIC MARK
        ***************************************************
X1     14.000      8.000   4420.000   4610.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   1908.000   2000.000   1901.000   3080.000   1903.000   3900.000   1900.000   4260.000   1899.000   4420.000
GR   1900.000   4610.000   1905.000   6220.000   1907.000   6460.000      0.000      0.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 14.000

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

14.00	1.76	1900.76	0.00	1900.00	1900.81	0.05	0.00	0.00	1899.00
1000.	436.	481.	84.	236.	239.	93.	0.	0.	1900.00
0.00	1.85	2.01	0.90	0.123	0.123	0.123	0.000	1899.00	4168.99
0.020369	0.	0.	0.	0	0	6	0.00	685.22	4854.21

FLOW DISTRIBUTION FOR SECNO= 14.00 CWSEL= 1900.76

STA=	4169.	4260.	4420.	4610.	4854.
PER Q=	3.1	40.5	48.1	8.4	
AREA=	34.5	201.3	239.1	92.6	
VEL=	0.9	2.0	2.0	0.9	

1
18-FEB-88 15:48:26 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 14

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.020100	0.00	0.0	0.	1900.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
18-FEB-88 15:48:26 PAGE 4

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 14.000

3265 DIVIDED FLOW

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK

STA 2900 IS LOCATED ON MAP WITH TIC MARK

14.00	3.52	1902.52	0.00	1900.00	1902.63	0.11	0.00	0.00	1899.00	
7500.	3412.	2050.	2038.	1515.	574.	1021.	0.	0.	1900.00	
0.00	2.25	3.57	2.30	0.123	0.123	0.123	0.000	1899.00	2845.65	
0.020051	0.	0.	0.	0	0	6	0.00	2320.47	5421.09	

FLOW DISTRIBUTION FOR SECNO= 14.00 CWSEL= 1902.52

STA=	2846.	3080.	3703.	4260.	4420.	4610.	5421.
PER Q=	3.4	9.0	10.1	23.0	27.3	27.2	
AREA=	178.3	472.9	380.7	493.0	573.6	1021.5	
VEL=	1.4	1.4	2.0	3.6	3.6	2.3	

18-FEB-88 15:48:26 PAGE 5

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 14

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
14.000	0.00	0.00	0.00	1899.00	1000.00	1900.76	0.00	1900.81	203.69	2.01	567.55	70.07
14.000	0.00	0.00	0.00	1899.00	7500.00	1902.52	0.00	1902.63	200.51	3.57	3109.68	529.66

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Overflow X-Sec. 14

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
14.000	1000.00	1900.76	0.00	0.00	0.76	685.22	0.00
14.000	7500.00	1902.52	1.76	0.00	2.52	2320.47	0.00

18-FEB-88 15:48:26 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

18-FEB-88 15:49:02 PAGE 1

```
 ***************************************************
   HEC2 RELEASE DATED NOV 76 (EDATED) MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ***************************************************


EOF..
```

```
      3
   15.0  ************************************************
   15.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
   15.0  ************************************************
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 15
J1             2                  0.0100                          1800
J2     1              -1
J3   150
NC 0.123   0.123   0.123
JT     2    1000    7500
X1  15.0       9    4420    4880
X2                                                                 15.0
GR  1812    2000    1810    2960    1808    3530  1807.7    3970  1807.5    4420
GR1807.6    4890    1809    5300  1810.5    5730    1813    6650
EJ
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 15
J1             3                  0.0100                          1800
J2    15              -1


ER
EOF..
```

```
CCCCCC
         3
     15.0  ************************************************
     15.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
     15.0  ************************************************
T1             Clark County, Nevada COE - 100 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 15
J1                2                    0.0100                              1800
J2       1                -1
J3     150
NC  0.123    0.123    0.123
ST       2    1000     7500
K1    15.0       9     4420     4880                                                  15.0
X2
GR    1812     2000     1810     2960     1808     3530   1807.7     3970   1807.5     4420
GR1807.6     4880     1809     5300   1810.5     5730     1813     6650
EJ
T1             Clark County, Nevada COE - 500 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 15
J1                3                    0.0100                              1800
J2      15               -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:49:44          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ***************************************************

C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 15

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

      0.        2.         0.         0.   0.010000        0.00       0.0         0.   1800.000       0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IRV        CHNIM      ITRACE

    1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000    0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT      2.000   1000.000   7500.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          ***************************************************
          STA 2000 IS LOCATED ON MAP WITH TIC MARK
          ***************************************************
X1     15.000      9.000   4420.000   4880.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   1812.000   2000.000   1810.000   2960.000   1808.000   3530.000   1807.700   3970.000   1807.500   4420.000
GR   1807.600   4880.000   1809.000   5300.000   1810.500   5730.000   1813.000   6650.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 15.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

15.00	0.87	1808.37	0.10	1800.00	1808.39	0.01	0.00	0.00	1807.50
1000.	542.	401.	57.	598.	379.	90.	0.	0.	1807.60
0.00	0.91	1.06	0.54	0.123	0.123	0.123	0.000	1807.50	3423.72
0.009976	0.	0.	0.	0	0	5	0.00	1688.16	5111.88

FLOW DISTRIBUTION FOR SECNO= 15.00 CWSEL= 1808.37

STA=	3424.	3530.	3970.	4420.	4880.	5112.
PER Q=	0.8	18.0	35.4	40.1	5.7	
AREA=	19.8	230.1	347.8	378.5	89.6	
VEL=	0.4	0.8	1.0	1.1	0.6	

1

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 15

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.010000	0.00	0.0	0.	1800.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 15.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

15.00	2.32	1809.82	0.00	1800.00	1809.88	0.05	0.00	0.00	1807.50

7500.	4236.	2179.	1085.	2342.	1045.	737.	0.	0.	1807.50	
0.00	1.81	2.08	1.47	0.123	0.123	0.123	0.000	1807.50	3010.52	
0.009957	0.	0.	0.	0	0	5	0.00	2525.34	5535.86	

FLOW DISTRIBUTION FOR SECNO= 15.00 CWSEL= 1809.82

STA=	3011.	3530.	3970.	4420.	4880.	5300.	5536.
PER Q=	7.2	21.9	27.4	29.0	13.6	0.9	
AREA=	473.4	868.0	1000.3	1045.4	639.5	97.0	
VEL=	1.1	1.9	2.1	2.1	1.6	0.7	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 15
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
15.000	0.00	0.00	0.00	1807.50	1000.00	1808.37	0.00	1808.39	99.76	1.06	1065.88	100.12
15.000	0.00	0.00	0.00	1807.50	7500.00	1809.82	0.00	1809.88	99.57	2.08	4123.73	751.63

Overflow X-Sec. 15
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
15.000	1000.00	1808.37	0.00	0.00	8.37	1688.16	0.00
15.000	7500.00	1809.82	1.45	0.00	9.82	2525.34	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982

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      ERROR CORR -   01,02,03,04,05
      MODIFICATION -   50,51,52,53,54,55
    ************************************************
```

EOF..

```
       3
      15     ************************************************
      16       TIC MARK LOCATED ON MAP AT STA 7420
      16     ************************************************
T1            Clark County, Nevada COE -  25 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 16
J1               2                  0.0068                              1800
J2       1          -1
J3     150
NC  0.050   0.050   0.060
ST       4    6200    9000   11500   16000
X1    16.0      19    9470   11830
X2                                                                      15.0
GR    1792    7420  1793.4    7670  1793.3    8320    1791    8520  1791.8    8580
GR1790.5    8660    1792    8720    1793    8880    1792    9010    1792    9160
GR1790.9    9470  1790.9    9750  1788.8   10000  1789.9   10300  1789.1   10500
GR    1792   11100    1792   11260    1796   11830  1799.3   12260
EJ
T1            Clark County, Nevada COE -  50 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 16
J1               3                  0.0068                              1900
J2       2          -1
T1            Clark County, Nevada COE - 100 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 16
J1               4                  0.0068                              1900
J2       3          -1
T1            Clark County, Nevada COE - 500 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 16
J1               5                  0.0068                              1800
J2      15          -1


ER

EOF..
```

```
CC
     3
    13.0  ****************************************************
    13.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
    13.0  ****************************************************
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13A
J1              2                0.0132                                  1850
J2       1              -1
J3     150
NC  0.123   0.123    0.022
QT       4   7200    10300    12500    17000
ET           7.1      7.1      7.1      7.1          2000     5720
K1      13     38     4340   4356.2
K2                                                                      15.0
GR    1854     2000     1853     2400     1853     2800   1850.0     3040   1847.0     3450
GR    1847     3700     1846     3950     1848     4340   1843.6   4340.1   1843.6   4346.1
GR    1848   4346.2     1848     4350   1843.6   4350.1   1843.6   4356.1     1848   4356.2
GR    1847     4560     1846     4920     1844     5070     1846     5560   1846.0     5720
GR    1845     5870     1846     6000     1845     6100     1842     6750     1845     7100
GR1846.7       7800     1850     8640   1847.7     9180     1848     9870   1850.8    10350
GR    1850    10900     1851    11400     1850    11770     1855    12500     1854    13400
GR    1854    13650     1855    13970     1857    14040
EJ
T1          Clark County, Nevada COE -  50 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13
J1              3                0.0132                                  1850
J2       2              -1
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13
J1              4                0.0132                                  1850
J2       3              -1
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13
J1              5                0.0132                                  1850
J2      15              -1


ER
EOF..
```

```
T1          Clark County, Nevaca COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16A
J1             2                  0.0068                                  1800
J2       1              -1
J3     150
NC   0.060   0.060   0.040
QT       4    7200   10000   12500   17000
ET            7.1     7.1     7.1     7.1            2000    2370
KI    16.0     15    2280    2305
K2                                                                        15.0
GR1803.2      2000  1801.6    2210  1801.6    2280    1799    2285    1759  2300
GR1802.8      2305  1802.8    2370  1802.3    2550  1800.7    2790    1800  3170
GR   1798      3670  1800.5    4270  1796.8    5070  1800.8    5960    1803  6360
EJ
T1          Clark County, Nevada COE -  50 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16A
J1             3                  0.0068                                  1800
J2       2              -1
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16A
J1             4                  0.0068                                  1800
J2       3              -1
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16A
J1             5                  0.0068                                  1800
J2    15               -1

ER

EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:50:29          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

I
18-FEB-88 15:50:31


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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.006800      0.00      0.0       0.  1800.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.050     0.050     0.060     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      4.000  6200.000  9000.000 11500.000 16000.000     0.000     0.000     0.000     0.000     0.000
          ************************************************
          TIC MARK LOCATED ON MAP AT STA 7420
          ************************************************
X1     16.100    19.000  9470.000 11830.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1792.000  7420.000  1793.400  7670.000  1793.300  8320.000  1791.000  8520.000  1791.800  8580.000
GR   1790.500  8660.000  1792.000  8720.000  1793.000  8880.000  1792.000  9000.000  1792.000  9160.000
GR   1790.900  9470.000  1790.900  9750.000  1788.800 10000.000  1789.900 10300.000  1789.100 10500.000
GR   1792.000 11100.000  1792.000 11260.000  1796.000 11830.000  1799.300 12260.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 16.000

3265 DIVIDED FLOW

****
TIC MARK LOCATED ON MAP AT STA 7420
****

16.00	2.73	1791.53	0.00	1800.00	1791.64	0.11	0.00	0.00	1790.90
6200.	173.	6027.	0.	134.	2272.	0.	0.	0.	1796.00
0.00	1.29	2.65	0.00	0.050	0.060	0.050	0.000	1768.80	6473.66
0.006795	0.	0.	0.	0	0	9	0.00	1902.94	11003.37

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 1791.53

STA=	6474.	8520.	8560.	8660.	8731.	9470.	11830.
PER Q=	0.2	0.2	0.8	0.5	1.0	97.2	
AREA=	12.3	10.7	32.8	21.3	56.4	2271.7	
VEL=	1.0	1.0	1.6	1.6	1.1	2.7	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada CDE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 16

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.006800	0.00	0.0	0.	1800.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 16.000

3265 DIVIDED FLOW

TIC MARK LOCATED ON MAP AT STA 7420

16.00	3.10	1791.90	0.00	1800.00	1792.03	0.13	0.00	0.00	1790.90
9000.	507.	8493.	0.	303.	2843.	0.	0.	0.	1796.00
0.00	1.67	2.99	0.00	0.050	0.060	0.050	0.000	1788.80	8442.06
0.006811	0.	0.	0.	0	0	12	0.00	2163.15	11078.56

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 1791.90

STA=	8442.	8520.	8580.	8660.	8716.	9470.	11830.
PER Q=	0.6	0.5	1.3	0.8	2.4	94.4	
AREA=	34.9	29.8	59.7	39.0	139.9	2842.6	
VEL=	1.4	1.5	2.0	1.9	1.5	3.0	

1

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 100 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 16

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.006800	0.00	0.0	0.	1800.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

18-FEB-88 15:50:31 PAGE 6

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

*PROF 3

*SECNO 16.000

3265 DIVIDED FLOW

3280 CROSS SECTION 16.00 EXTENDED 0.21 FEET

TIC MARK LOCATED ON MAP AT STA 7420

16.00	3.41	1792.21	0.00	1800.00	1792.35	0.14	0.00	0.00	1790.90
11500.	1072.	10428.	0.	530.	3381.	0.	0.	0.	1796.00
0.00	2.02	3.08	0.00	0.050	0.060	0.050	0.000	1788.80	7420.00

0.006788 0. 0. 0. 0 0 8 0.00 2688.22 11289.26

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 1792.21

STA=	7420.	7457.	8520.	8580.	8660.	8720.	8753.	9000.	9160.	9470.	11830.
PER Q=	0.0	1.0	0.9	1.9	1.2	0.0	0.0	0.2	4.1	90.7	
AREA=	3.8	63.2	48.3	84.4	57.3	3.4	2.5	32.9	234.1	3380.9	
VEL=	0.5	1.7	2.1	2.5	2.4	0.5	0.5	0.9	2.0	3.1	


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 16

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.006800	0.00	0.0	0.	1800.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

*SECNO 16.000

3265 DIVIDED FLOW

3280 CROSS SECTION 16.00 EXTENDED 0.58 FEET

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**************************************************
  TIC MARK LOCATED ON MAP AT STA 7420
**************************************************
```

16.00	3.78	1792.58	0.00	1800.00	1792.75	0.17	0.00	0.00	1790.80
16000.	2162.	13838.	0.	892.	4069.	0.	0.	0.	1796.00
0.00	2.43	3.40	0.00	0.050	0.060	0.050	0.000	1788.80	7420.00
0.006699	0.	0.	0.	0	0	7	0.00	2944.63	11342.37

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 1792.58

STA=	7420.	7523.	8520.	8580.	8660.	8720.	8812.	9000.	9160.	9470.	11830.
PER Q=	0.2	1.4	1.2	2.2	1.5	0.2	0.1	1.0	5.8	86.5	
AREA=	29.8	108.3	70.7	114.2	79.7	26.7	20.0	92.5	349.7	4068.8	
VEL=	1.1	2.1	2.7	3.1	2.9	1.1	1.1	1.7	2.6	3.4	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 16

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
16.000	0.00	0.00	0.00	1788.80	6200.00	1791.53	0.00	1791.64	67.95	2.65	2405.31	752.16
16.000	0.00	0.00	0.00	1788.80	9000.00	1791.90	0.00	1792.03	68.11	2.99	3145.92	1090.55
16.000	0.00	0.00	0.00	1788.80	11500.00	1792.21	0.00	1792.35	67.88	3.08	3910.81	1395.31
16.000	0.00	0.00	0.00	1788.80	16000.00	1792.58	0.00	1792.75	66.99	3.40	4960.41	1954.85

1

Overflow X-Sec. 16

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
16.000	6200.00	1791.53	0.00	0.00	-8.47	1902.94	0.00
16.000	9000.00	1791.90	0.36	0.00	-8.10	2163.15	0.00
16.000	11500.00	1792.21	0.31	0.00	-7.79	2688.22	0.00
16.000	16000.00	1792.58	0.37	0.00	-7.42	2944.63	0.00

1

SUMMARY OF ERRORS AND SPECIAL NOTES

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
C
C        3
C       17
C       17     ****************************************
C       17     TIC MARK LOCATED ON MAP AT STA 2000
C       17     ****************************************
T1             Clark County, Nevada COE -  25 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 17
J1                2                    0.0053                              1760
J2       1               -1
J3     150
NC  0.123   0.123   0.123
ST       4   4300    6500    9500   14500
X1    17.0      14    3925    4000
X2                                                                          15.0
GR1765.1     2000  1761.0    2475  1763.5    2850  1764.1    3050    1760    3925
GR1755.0     3975  1760.0    4000  1751.2    4750  1761.2    5430    1760    5850
GR1758.4     6020  1760.0    6190  1751.4    7450  1764.5    7940
EJ
T1             Clark County, Nevada COE -  50 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 17
J1                3                    0.0053                              1760
J2       2               -1
T1             Clark County, Nevada COE - 100 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 17
J1                4                    0.0053                              1760
J2       3               -1
T1             Clark County, Nevada COE - 500 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 17
J1                5                    0.0053                              1760
J2      15               -1


ER

EOF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:51:29          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X          XXXXX      XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX                XXXXXXX
```



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  *************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -   50,51,52,53,54,55
  *************************************************


C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 17

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.         2.         0.         0.   0.005300       0.00       0.0        0.   1760.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT      4.000   4300.000   6500.000   9500.000  14500.000      0.000      0.000      0.000      0.000      0.000
              *************************************
              TIC MARK LOCATED ON MAP AT STA 2000
              *************************************
X1     17.000     14.000   3925.000   4000.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   1765.100   2000.000   1761.000   2475.000   1763.500   2850.000   1764.100   3050.000   1760.000   3925.000
GR   1755.000   3975.000   1760.000   4000.000   1761.200   4750.000   1761.200   5430.000   1760.000   5850.000
GR   1758.400   6020.000   1760.000   6180.000   1761.400   7450.000   1764.500   7940.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 17.000

3265 DIVIDED FLOW

****
TIC MARK LOCATED ON MAP AT STA 2000
****

17.00	6.61	1761.61	0.00	1760.00	1761.63	0.02	0.00	0.00	1760.00
4300.	229.	691.	3381.	324.	308.	3404.	0.	0.	1760.00
0.00	0.71	2.24	0.39	0.123	0.123	0.123	0.000	1755.00	2404.70
0.005306	0.	0.	0.	0	0	6	0.00	4061.93	7482.69

FLOW DISTRIBUTION FOR SECNO= 17.00 CWSEL= 1761.61

STA=	2415.	2475.	2566.	3925.	4000.	4750.	5430.	5850.	6020.	6180.	7450.	7483.
PER Q=	0.2	0.3	4.9	16.1	15.5	3.1	5.7	15.0	14.2	22.1	0.0	
AREA=	21.3	27.6	275.5	308.3	755.1	276.7	422.9	409.1	385.1	1151.6	3.4	
VEL=	0.4	0.4	0.3	2.2	0.9	0.5	0.9	1.5	1.6	0.8	0.2	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada CDE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 17

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.005300	0.00	0.0	0.	1760.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 17.000

3265 DIVIDED FLOW

****
TIC MARK LOCATED ON MAP AT STA 2000
****

17.00	6.95	1761.95	0.03	1760.00	1761.98	0.03	0.00	0.00	1760.00
6500.	418.	791.	5291.	528.	334.	4622.	0.	0.	1760.00
0.00	0.79	2.37	1.14	0.123	0.123	0.123	0.000	1755.00	2364.48
0.005308	0.	0.	0.	0	0	4	0.00	4283.19	7537.56

FLOW DISTRIBUTION FOR SECNO= 17.00 CWSEL= 1761.95

STA=	2364.	2475.	2618.	3925.	4000.	4750.	5430.	5850.	6020.	6180.	7450.	7538.
PER Q=	0.4	0.6	5.4	12.2	16.8	5.8	9.4	12.5	11.7	25.1	0.1	
AREA=	52.7	68.2	407.4	334.0	1015.5	512.7	568.7	468.2	440.6	1592.5	24.3	
VEL=	0.5	0.5	0.9	2.4	1.1	0.7	1.1	1.7	1.7	1.0	0.4	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 100 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 17

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.005300	0.00	0.0	0.	1760.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

*SECNO 17.000

3265 DIVIDED FLOW

****
TIC MARK LOCATED ON MAP AT STA 2000
****

17.00	7.33	1762.33	0.00	1760.00	1762.37	0.03	0.00	0.00	1760.00
9500.	729.	909.	7862.	818.	363.	5980.	0.	0.	1760.00
0.00	0.89	2.51	1.31	0.123	0.123	0.123	0.000	1755.00	2320.38
0.005338	0.	0.	0.	0	0	5	0.00	4525.77	7597.72

FLOW DISTRIBUTION FOR SECNO= 17.00 CWSEL= 1762.33

STA=	2320.	2475.	2675.	3925.	4000.	4750.	5430.	5850.	6020.	6180.	7450.	7598.
PER Q=	0.7	0.9	6.0	9.6	17.5	7.8	9.8	10.6	10.0	26.8	0.4	
AREA=	103.2	133.6	581.6	362.6	1301.0	771.6	728.5	532.9	501.5	2075.8	69.0	
VEL=	0.7	0.7	1.1	2.5	1.3	1.0	1.3	1.9	1.9	1.2	0.5	


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 17

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        5.        0.        0.  0.005300      0.00      0.0       0.  1760.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 4

*SECNO 17.000

3265 DIVIDED FLOW

                ****************************************
                 TIC MARK LOCATED ON MAP AT STA 2000
                ****************************************
    17.00       7.86   1762.86      0.00   1760.00   1762.90      0.04      0.00      0.00   1760.00
 14500.      1360.      1074.     12065.     1335.      402.     7899.        0.        0.   1760.00
     0.00       1.02      2.67      1.53     0.123     0.123     0.123     0.000   1755.00   2259.30
 0.005281        0.        0.        0.         0         0         6      0.00   4861.79   7681.06

FLOW DISTRIBUTION FOR SECNO=     17.00          CWSEL=   1762.86

STA=     2259.     2475.     2754.     3925.     4000.     4750.     5430.     5850.     6020.     6180.     7450.     7681.
  PER Q=      1.2       1.5       6.7       7.4      17.7       9.6       9.9       9.0       8.4      27.8       0.8
    AREA=   200.8     260.0     873.9     402.1    1696.4    1130.1     950.0     622.5     585.9    2745.4     168.9
     VEL=     0.8       0.8       1.1       2.7       1.5       1.2       1.5       2.1       2.1       1.5       0.7
```

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

     Overflow X-Sec. 17
SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD      ELLC      ELMIN       Q         CWSEL      CRIWS      EG        10K*S      VCH       AREA       .01K
     17.000      0.00       0.00      0.00     1755.00   4300.00    1761.61      0.00     1761.63    53.06      2.24     4036.25    590.30
     17.000      0.00       0.00      0.00     1755.00   6500.00    1761.95      0.00     1761.98    53.08      2.37     5484.82    892.15
     17.000      0.00       0.00      0.00     1755.00   9500.00    1762.33      0.00     1762.37    53.38      2.51     7161.22   1300.23
     17.000      0.00       0.00      0.00     1755.00  14500.00    1762.86      0.00     1762.90    52.81      2.67     9635.92   1995.39

1
  18-FEB-88    15:51:30                                                                                          PAGE   10

     Overflow X-Sec. 17
SUMMARY PRINTOUT TABLE  150

      SECNO       Q         CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
     17.000    4300.00    1761.61       0.00       0.00       1.61    4861.93      0.00
     17.000    6500.00    1761.95       0.35       0.00       1.95    4293.19      0.00
     17.000    9500.00    1762.33       0.38       0.00       2.33    4525.77      0.00
     17.000   14500.00    1762.86       0.53       0.00       2.86    4861.79      0.00

1
  18-FEB-88    15:51:30                                                                                          PAGE   11


  SUMMARY OF ERRORS AND SPECIAL NOTES

1
  18-FEB-88    15:51:49                                                                                          PAGE    1


 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************


 EOF..
```

```
3
   18.0  ************************************************
   18.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
   18.0  ************************************************
T1         Clark County, Nevada COE -  100 year flood
T2         James M. Montgomery Consulting Engineers, Inc.
T3         Overflow X-Sec. 1@
J1            2                    0.0044                          1740
J2     1             -1
J3   150
NC 0.123  0.123   0.123
JT     2    750    5500
K1  18.0     15    2280    2305
K2                                                                  15.0
GR  1744    2000  1741.7    2200  1745.4    2370    1749    2500  1743.8    2760
GR1745.7    2870  1743.5    2960  1744.5    3150    1744    3300    1745    3450
GR1743.8    3600  1744.6    3840  1742.8    4580    1744    5380    1748    6530
EJ
T1         Clark County, Nevada COE - 500 year flood
T2         James M. Montgomery Consulting Engineers, Inc.
T3         Overflow X-Sec. 1@
J1            3                    0.0044                          1740
J2    15              -1


ER

EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:52:19          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX

1
  18-FEB-88     15:52:19                                                    PAGE     1


  ************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -   50,51,52,53,54,55
  ************************************************


  C
  T1          Clark County, Nevada COE -  100 year flood
  T2          James M. Montgomery Consulting Engineers, Inc.
  T3          Overflow X-Sec. 18

  J1   ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      G          WSEL       FQ
          0.         2.         0.         0.   0.004400       0.00       0.0        0.   1740.000       0.000
  J2   NPROF       IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
          1.000      3.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
  J3   VARIABLE CODES FOR SUMMARY PRINTOUT
       150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

  NC        0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
  NT        2.000    750.000   5500.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
            ************************************************
            STA 2000 IS LOCATED ON MAP WITH TIC MARK
            ************************************************
  X1       18.000     15.000   2280.000   2305.000      0.000      0.000      0.000      0.000      0.000      0.000
  X2        0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
  GR     1744.000   2000.000   1741.700   2200.000   1745.400   2370.000   1749.000   2500.000   1743.800   2760.000
  GR     1745.700   2870.000   1743.500   2960.000   1744.500   3150.000   1744.000   3300.000   1745.000   3450.000
  GR     1743.300   3600.000   1744.600   3840.000   1742.800   4580.000   1744.000   5380.000   1748.000   6530.000
  EJ        0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 18.000

3265 DIVIDED FLOW

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

18.00	2.29	1743.99	0.30	1740.00	1744.00	0.01	0.00	0.00	1794.00
750.	0.	0.	750.	0.	0.	1154.	0.	0.	1794.00
0.00	0.00	0.00	0.55	0.123	0.123	0.123	0.000	1741.70	2000.63
0.004373	0.	0.	0.	0	0	8	0.00	1806.80	5375.20

FLOW DISTRIBUTION FOR SECNO= 18.00 CWSEL= 1743.99

STA=	2001.	2200.	2305.	2760.	2771.	2960.	3054.	3600.	3658.	4580.	5375.
PER Q=	26.7	14.1	0.3	0.0	0.2	1.0	0.1	0.1	22.1	35.5	
AREA=	228.6	120.8	0.9	1.1	5.0	23.1	2.3	5.6	292.4	474.2	
VEL=	0.9	0.9	0.2	0.2	0.3	0.3	0.2	0.2	0.6	0.6	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 18

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.004400	0.00	0.0	0.	1740.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 18.000

3265 DIVIDED FLOW

3280 CROSS SECTION 18.00 EXTENDED 1.34 FEET

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

18.00	3.64	1745.34	0.00	1740.00	1745.36	0.02	0.00	0.00	1794.00	
5500.	0.	0.	5500.	0.	0.	4995.	0.	0.	1794.00	
0.00	0.00	0.00	1.10	0.123	0.123	0.123	0.000	1741.70	2000.00	
0.004362	0.	0.	0.	0	0	6	0.00	3415.85	5766.40	

FLOW DISTRIBUTION FOR SECNO= 18.00 CWSEL= 1745.34

STA=	2000.	2200.	2367.	3150.	3450.	3840.	4580.	5380.	5766.
PER Q=	13.2	6.6	7.0	4.2	6.3	24.6	35.1	2.9	
AREA=	498.8	305.1	453.5	290.7	416.1	1216.5	1555.2	259.7	
VEL=	1.5	1.2	0.9	0.8	0.9	1.1	1.2	0.6	

1

18-FEB-88 15:52:19 PAGE 5

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 18

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
18.000	0.00	0.00	0.00	1741.70	750.00	1743.99	0.00	1744.00	43.73	0.00	1153.85	113.42
18.000	0.00	0.00	0.00	1741.70	5500.00	1745.34	0.00	1745.36	43.62	0.00	4995.54	832.80

1

18-FEB-88 15:52:19 PAGE 6

Overflow X-Sec. 18

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
18.000	750.00	1743.99	0.00	0.00	3.99	1806.80	0.00
18.000	5500.00	1745.34	1.35	0.00	5.34	3415.85	0.00

1

18-FEB-88 15:52:19 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:53:03          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

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1
  18-FEB-88    15:53:05                                                    PAGE    1


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ************************************************

 C
 T1          Clark County, Nevada COE -  100-year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Las Vegas Creek Overflow X-Sec. 19          DMH 9/26/87

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.011800      0.00      0.0       0.  1795.000     0.000
 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000   0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 NC      0.025     0.140     0.025     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 QT      2.000  1000.000  7500.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
          ************************************************
          ST4 0.00 IS LOCATED ON MAP WITH TIC MARK
          ************************************************
 X1     19.000    13.000   320.000   420.000     0.000     0.000     0.000     0.000     0.000     0.000
 X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
 GR   1819.000     0.000  1791.000    30.000  1791.000   130.000  1819.000   161.000  1820.000   260.000
 GR   1791.500   320.000  1791.500   420.000  1791.500   870.000  1795.000  1280.000  1795.000  1680.000
 GR   1794.500  1690.000  1795.000  1850.000  1800.000  2210.000     0.000     0.000     0.000     0.000
 EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 19.000

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

****
STA 0.00 IS LOCATED ON MAP WITH TIC MARK
****

19.00	1.09	1792.09	1792.09	1795.00	1792.41	0.33	0.00	0.00	1791.50
1000.	604.	215.	181.	110.	59.	285.	0.	0.	1791.50
0.00	5.47	3.66	0.54	0.025	0.025	0.140	0.000	1791.00	28.83
0.007699	0.	0.	0.	0	14	0	0.00	722.42	938.81

FLOW DISTRIBUTION FOR SECNO= 19.00 CWSEL= 1792.09

STA=	29.	30.	130.	131.	320.	420.	870.	939.
PER Q=	0.2	60.0	0.2	0.1	21.5	17.3	0.8	
AREA=	0.6	108.7	0.7	0.4	58.7	264.3	20.2	
VEL=	2.8	5.5	2.8	2.2	3.7	0.7	0.4	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 19

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.011800	0.00	0.0	0.	1795.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 19.100

*SECNO 19.000

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

****
STA 0.00 IS LOCATED ON MAP WITH TIC MARK
****

19.00	2.87	1793.87	1793.87	1795.00	1794.99	1.12	0.00	0.00	1791.50
7500.	3142.	2224.	2134.	302.	237.	1394.	0.	0.	1791.50
0.00	10.42	9.39	1.53	0.025	0.025	0.148	0.000	1791.00	26.93
0.007912	0.	0.	0.	0	19	0	0.00	938.59	1147.36

FLOW DISTRIBUTION FOR SECNO= 19.00 CWSEL= 1793.87

STA=	27.	30.	130.	133.	320.	420.	970.	1147.
PER Q=	0.3	40.8	0.3	0.4	29.7	23.8	4.6	
AREA=	4.4	296.8	4.6	5.9	236.8	1065.5	328.3	
VEL=	5.5	10.7	5.5	5.5	9.4	1.7	1.1	

1
18-FEB-88 15:53:05 PAGE 5

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Las Vegas Creek Over

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	19.000	0.00	0.00	0.00	1791.00	1000.00	1792.09	1792.09	1792.41	76.99	3.66	453.67	113.97
*	19.000	0.00	0.00	0.00	1791.00	7500.00	1793.87	1793.87	1794.99	79.12	9.39	1932.19	843.17

1
18-FEB-88 15:53:05 PAGE 6

Las Vegas Creek Over

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	19.000	1000.00	1792.09	0.00	0.00	-2.91	722.42	0.00
*	19.000	7500.00	1793.87	1.78	0.00	-1.13	938.59	0.00

1
18-FEB-88 15:53:05 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

```
 CAUTION  SECNO=   19.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=   19.000  PROFILE= 2  CRITICAL DEPTH ASSUMED

1
  18-FEB-88     15:53:23                                                                    PAGE     1


  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************



 EOF..
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```
CC          3
CC       21.0  ************************************************
CC       21.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
CC       21.0  ************************************************
T1               Clark County, Nevada COE - 100 year Flood
T2               James M. Montgomery Consulting Engineers, Inc.
T3               Charleston  Overflow X-Sec. 21
J1                  2                    .0238                                  2000
J2       1                -1
J3     150
NC   0.123    0.123    0.123
QT       2    1500    12000
K1      21      13     2870     4220
GR    1993    2000     1990     2470     1990     2580     1990     2870     1988     3025
GR    1988    3025     1988     4060   1988.4     4220     1995     4880   1996.1     5350
GR    1996    5610   1998.2     5960   2000.8     6115     2000     6410
EJ
T1               Clark County, Nevada COE - 500 year flood
T2               James M. Montgomery Consulting Engineers, Inc.
T3               Charleston  Overflow X-Sec. 21
J1                  3                    0.0238                                 2000
J2      15                -1


ER

EOF..
```

```
1*********************************************
 *  WATER SURFACE PROFILES                   *
 *  VERSION OF NOVEMBER 1976                 *
 *  UPDATED AUGUST 1983                      *
 *                                           *
 *  RUN DATE  18-FEB-88 TIME   15:54:19      *
 *********************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 **************************************************

C
T1          Clark County, Nevada COE - 100 year Flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 21

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         2.         0.         0.  0.023800       0.00       0.0        0.  2000.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000


NC       0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT       2.000   1500.000  12000.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          ********************************************************
          STA 2300 IS LOCATED ON MAP WITH TIC MARK
          ********************************************************
X1      21.000     13.000   2870.000   4220.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    1993.000   2000.000   1990.000   2470.000   1990.000   2580.000   1990.000   2870.000   1988.000   3025.000
GR    1988.000   3025.000   1988.000   4060.000   1988.400   4220.000   1995.000   4880.000   1996.100   5350.000
GR    1996.000   5610.000   1998.200   5860.000   2000.800   6115.000   2000.000   6400.000      0.000      0.000
EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 21.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

21.00	0.81	1988.81	0.00	2000.00	1988.85	0.04	0.00	0.00	1990.00
1500.	0.	1495.	5.	0.	960.	3.	0.	0.	1988.40
0.00	0.00	1.56	0.55	0.123	0.123	0.123	0.000	1988.00	2562.29
0.023777	0.	0.	0.	0	0	10	0.00	1258.63	4260.92

1

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Charleston Overflow X-Sec. 21

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.023000	8.00	0.0	0.	2000.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 21.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

21.00	3.19	1991.19	0.00	2000.00	1991.50	0.31	0.00	0.00	1990.00
12000.	753.	10650.	597.	586.	4118.	389.	0.	0.	1988.40
0.00	1.28	2.59	1.53	0.123	0.123	0.123	0.000	1988.00	2283.71
0.022870	0.	0.	0.	0	0	7	0.00	2215.20	4498.91

1

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

     Charleston  Overflow
SUMMARY PRINTOUT TABLE  150

      SECNO       XLCH       ELTRD      ELLC       ELMIN       Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     21.000       0.00       0.00       0.00      1988.00    1500.00    1988.81      0.00     1988.85    237.77      1.56     568.73     97.28
     21.000       0.00       0.00       0.00      1988.00   12000.00    1991.19      0.00     1991.50    228.70      2.59    5093.58    793.51

1
 18-FEB-88     15:54:20                                                                                                          PAGE     6

     Charleston  Overflow
SUMMARY PRINTOUT TABLE  150

      SECNO         Q          CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
     21.000      1500.00     1988.81       0.00       0.00     -11.19     1298.63      0.00
     21.000     12000.00     1991.19       2.38       0.00      -8.81     2215.20      0.00

1
 18-FEB-88     15:54:20                                                                                                          PAGE     7


  SUMMARY OF ERRORS AND SPECIAL NOTES

1
 18-FEB-88     15:54:28                                                                                                          PAGE     1


 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************


EOF..
```

```
CCCC
CCCC      3
C     1.00        Single cross section normal depth analysis of LOB 500-year
C     1.00        overflow downstream of I-15; Q = 6,500 cfs (combined divided
C     1.00        flow at I-15 and split flow between LVW x10.665 and 10.55)
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR LOB BREAKOUT D/S OF I-15
J1                2                    0.0090
J2     -1                    -1
J3    150
QT          1     6500
NC 0.037   0.037    0.037      0.1       0.3
X1    1.00          4         405       860
X2                                                                        15
GR1894.0          0   1892.0      405   1892.0      860   1894.0     1060
EJ


ER
EOF..
```

```
I*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   5-FEB-88 TIME   11:40:29          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

1


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 500-YEAR LOB BREAKOUT D/S OF I-15

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.009000      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      1.000  6500.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.037     0.037     0.037     0.100     0.300     0.000     0.000     0.000     0.000     0.000
        Single cross section normal depth analysis of LOB 500-year
        overflow downstream of I-15; Q = 6,500 cfs (combined divided
        flow at I-15 and split flow between LVW x10.665 and 10.55)
X1      1.000     4.000   405.000   860.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1894.000     0.000  1892.000   405.000  1892.000   860.000  1894.000  1060.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TCPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
Single cross section normal depth analysis of LOB 500-year overflow downstream of I-15; Q = 6,500 cfs (combined divided flow at I-15 and split flow between LVW x10.665 and 10.55)

1.00	1.83	1893.83	0.00	0.00	1894.24	0.41	0.00	0.00	1892.00
6500.	1204.	4701.	595.	338.	832.	167.	0.	0.	1892.00
0.00	3.56	5.65	3.55	0.037	0.037	0.037	0.000	1892.00	34.90
0.008866	3.	0.	3.	0	0	5	0.00	1007.86	1042.76

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 1893.83

STA=	35.	405.	860.	1043.
PER Q=	18.5	72.3	9.1	
AREA=	338.2	831.6	167.0	
VEL=	3.6	5.7	3.5	

1
5-FEB-88 11:40:30 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 500-Y
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	1892.00	6500.00	1893.83	0.00	1894.24	88.66	5.65	1336.79	690.32

1
5-FEB-88 11:40:30 PAGE 4

LAS VEGAS WASH - 500-Y
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	6500.00	1893.83	0.00	0.00	0.00	1007.86	0.00

1
5-FEB-88 11:40:30 PAGE 5

SUMMARY OF ERRORS AND SPECIAL NOTES

1


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
CCCC
C       2
C    2.00       Single cross section normal depth analysis of LOB 25-year
C    2.00       overflow downstream of x10.49; Q = 900 cfs
T1          CORPS OF ENGINEERS/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 25-YEAR LOB BREAKOUT D/S OF x10.49
J1                    2                    0.0030
J2      -1                    -1
J3     150
QT       1       900
NC   0.037     0.037     0.037       0.1       0.3
X1    2.00         6       290       310
X2                                                                        15
GR1886.0           0    1884.0        50    1882.4       185    1882.0       290    1882.0       310
GR1884.0       715
EJ


ER
EOF..
```

123

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   6-FEB-88 TIME   02:34:26          *
 *************************************************
```

```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************
```

```
C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR LOB BREAKOUT D/S OF x10.49
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.003000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.037	0.037	0.037	0.100	0.300	0.000	0.000	0.000	0.000	0.000

Single cross section normal depth analysis of LOB 25-year overflow downstream of x10.49; Q = 900 cfs

X1	2.000	6.000	290.000	310.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1886.000	0.000	1884.000	50.000	1882.400	185.000	1882.000	290.000	1882.000	310.000
GR	1884.000	715.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 2.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
Single cross section normal depth analysis of LOB 25-year overflow downstream of x10.49; Q = 900 cfs

2.00	1.48	1883.48	0.00	0.00	1883.55	0.07	0.00	0.00	1882.00
900.	419.	84.	397.	193.	30.	221.	0.	0.	1882.00
0.00	2.29	2.86	1.80	0.037	0.037	0.037	0.000	1882.00	94.20
0.003011	0.	0.	0.	0	0	6	0.00	514.73	608.93

FLOW DISTRIBUTION FOR SECNO= 2.00 CWSEL= 1883.48

STA=	94.	185.	290.	310.	609.
PER Q=	7.9	38.6	9.4	44.1	
AREA=	48.9	134.0	29.5	220.6	
VEL=	1.5	2.6	2.9	1.8	

1
6-FEB-88 02:34:26 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.000	0.00	0.00	0.00	1882.00	900.00	1883.48	0.00	1883.55	30.11	2.86	433.00	164.03

1
6-FEB-88 02:34:26 PAGE 4

LAS VEGAS WASH - 25-YE
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.000	900.00	1883.48	0.00	0.00	0.00	514.73	0.00

1
6-FEB-88 02:34:26 PAGE 5

SUMMARY OF ERRORS AND SPECIAL NOTES

1


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
3
3.00        Single cross section normal depth analysis of LOB 25-year
3.00        breakout at Cheyenne Avenue; Q = 800 cfs (determined by split
3.00        flow analysis between x10.15 and Cheyenne Ave.)
T1      CORFCD/COE OVERFLOW STUDY
T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3      LAS VEGAS WASH - 25-YEAR LOB BREAKOUT u/s of Cheyenne Avenue
J1            2                  0.0058
J2    -1                -1
J3   150
QT      1     800
NC 0.100  0.100   0.015     0.1      0.3
K1  3.00      5     550     635
K2                                                                    15
GR1970.0      0  1868.0     320  1866.0     550  1866.1     635  1867.9     860
EJ


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   7-FEB-88 TIME   20:49:21          *
 *************************************************
```

```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```

126

```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X          XXXXX     XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
```

1
7-FEB-88 20:49:21 PAGE 1

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************
```

```
C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR LOB BREAKOUT u/s of Cheyenne Avenue
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.000	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.100	0.100	0.015	0.100	0.300	0.000	0.000	0.000	0.000	0.000

Single cross section normal depth analysis of LOB 25-year breakout at Cheyenne Avenue; Q = 800 cfs (determined by split flow analysis between x10.15 and Cheyenne Ave.)

X1	3.000	5.000	550.000	635.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1873.000	0.000	1868.000	320.000	1866.000	550.000	1866.100	635.000	1867.900	860.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
7-FEB-88 20:49:21 PAGE 2

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 3.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3720 CRITICAL DEPTH ASSUMED
Single cross section normal depth analysis of LOB 25-year breakout at Cheyenne Avenue; Q = 800 cfs (determined by split flow analysis between x10.15 and Cheyenne Ave.)

3.00	1.33	1867.33	1867.33	0.00	1867.85	0.53	0.00	0.00	1866.00
800.	62.	684.	54.	101.	108.	94.	0.	0.	1866.10
0.00	0.61	6.31	0.58	0.100	0.015	0.100	0.000	1866.00	397.55
0.00292	0.	0.	0.	0	11	0	0.00	390.66	788.21

FLOW DISTRIBUTION FOR SECNO= 3.00 CWSEL= 1867.33

STA=	398.	550.	635.	788.
PER Q=	7.7	85.5	6.8	
AREA=	101.1	108.4	93.9	
VEL=	0.6	6.3	0.6	

1
7-FEB-88 20:49:21 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE
SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	3.000	0.00	0.00	0.00	1866.00	800.00	1867.33	1867.33	1867.85	29.29	6.31	303.37	147.83

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LAS VEGAS WASH - 25-YE
SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	3.000	800.00	1867.33	0.00	0.00	0.00	390.66	0.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 3.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

1


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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     12
    0.00        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    0.00        Centerline Station at 2333
    0.20        Centerline Station at 2200
    0.46        Centerline Station at 2803
    0.73        Centerline Station at 2440
    0.98        Centerline Station at 2546
    1.24        Centerline Station at 2918
    1.45        Centerline Station at 3015
    1.65        Centerline Station at 3173
    1.82        Centerline Station at 3349
    2.03        Centerline Station at 2646
    2.23        Centerline Station at 2583
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR (d/s reach)
J1              2                0.0062              0.5
J2     -1                -1
J3     150
NC   .070     .050     .070      0.1      0.3
QT       1  84000
K1    0.00       26     2184     3356     1100     1100     1172
GR1660.0       1525   1656.0     1565   1552.0     1815   1650.8     2000   1649.1     2154
GR1646.5       2151   1646.5     2179   1651.4     2184   1646.6     2219   1644.0     2333
GR1644.2       2538   1644.9     3218   1652.5     3356   1645.1     3396   1646.8     3454
GR1653.3       3482   1647.6     3517   1647.2     3776   1646.8     4108   1648.9     4410
GR1652.0       4930   1652.0     4970   1650.0     5770   1652.0     6725   1656.8     7610
GR1657.3       7630
NC    0.08     0.08     0.08
K1    0.20       18     2000     3245     1000     1600     1060
GR1668.0       1700   1657.9     2000   1655.3     2266   1650.9     2504   1651.5     2847
GR1651.4       2969   1654.9     3245   1657.5     3707   1659.1     3965   1658.8     4067
GR1660.0       4087   1654.0     4230   1660.0     4330   1659.5     5260   1656.0     5860
GR1660.0       6750   1660.0     7250   1661.8     7290
K1    0.46       32     2338     2969     1225     2800     1380
GR1680.0       1550   1676.0     1570   1672.0     1595   1672.0     1880   1667.8     2000
GR1663.3       2088   1661.5     2167   1663.0     2180   1658.9     2192   1658.9     2204
GR1664.1       2216   1664.0     2231   1658.7     2338   1657.0     2782   1655.6     2792
GR1655.6       2813   1659.0     2969   1659.7     3550   1661.8     3850   1661.2     4025
GR1657.5       4045   1660.0     4075   1568.0     4425   1668.0     4545   1664.0     4565
GR1664.0       5375   1668.0     5395   1558.0     5420   1664.0     5710   1664.0     6745
GR1668.0       7105   1670.0     7725
K1    0.73       32     2324     3575     1300     2400     1436
GR1684.0       1680   1680.0     1955   1576.0     1975   1675.2     2000   1672.7     2103
GR1674.3       2119   1674.3     2147   1573.8     2166   1670.2     2249   1671.3     2324
GR1665.3       2810   1666.3     3275   1558.7     3575   1669.4     3778   1670.8     4365
GR1674.1       4481   1677.5     4513   1573.6     4576   1672.0     4796   1672.0     5036
GR1677.0       5736   1672.0     6436   1572.0     6940   1676.0     6970   1676.0     7010
GR1672.0       7030   1672.0     7350   1576.0     7410   1676.0     7440   1672.0     7730
GR1676.0       8370   1680.0     8640
NC    0.08     0.07     0.08
K1    0.98       20     2331     3773     1300     2320     1312
GR1688.0       1510   1684.0     1610   1580.0     1780   1677.6     2000   1675.5     2079
GR1678.3       2107   1678.3     2134   1677.3     2228   1676.5     2331   1678.7     2349
GR1673.2       3058   1674.6     3773   1574.8     4553   1676.5     4631   1676.0     4691
GR1675.0       4891   1676.0     5100   1580.0     7300   1681.5     7950   1684.0     8585
K1    1.24       21     2000     4140     1100      900     1344
GR1692.0       1440   1688.0     1455   1584.0     1545   1684.0     1770   1688.0     1820
GR1688.0       1900   1687.3     2000   1681.2     2167   1676.2     2265   1675.2     2918
GR1676.8       3294   1677.1     3639   1678.0     3909   1677.7     4140   1680.0     4220
GR1681.0       4250   1680.0     4280   1579.0     5480   1680.0     6030   1684.0     7180
GR1686.0       8495
K1    1.45       16     2442     3875     1300      900     1108
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GR1689.7   2996   1683.2   2132   1680.9   2215   1679.6   2442   1678.3   2832
GR1679.5   3527   1679.3   3716   1681.3   3875   1681.4   4015   1680.7   4060
GR1680.3   4075   1681.4   5175   1684.0   5975   1684.0   7175   1685.5   7540
GR1688.0   8380
NC   0.08   0.06     0.06
X1   1.65     25     3159   3203    875    725   1044
GR1720.0   1700   1716.0   1780   1712.0   1850   1708.0   1910   1692.6   2000
GR1681.2   2403   1681.9   2804   1682.9   3093   1681.3   3118   1683.3   3159
GR1680.7   3173   1683.1   3203   1682.5   3252   1680.9   3278   1683.1   3354
GR1682.3   3443   1681.5   3539   1682.7   3591   1681.4   3625   1683.3   3670
GR1685.1   4014   1685.0   4183   1684.4   5383   1684.0   6920   1692.0   8220
NC   0.08   0.08     0.04     .1     .3
X1   1.82     40     3175   3635    850   1050    948
GR1716.0   1780   1712.0   1850   1708.0   1910   1706.2   2000   1700.6   2084
GR1695.3   2155   1696.4   2197   1695.1   2243   1692.5   2272   1690.9   2307
GR1690.9   2378   1692.3   2411   1691.4   2448   1690.3   2479   1686.9   2812
GR1687.4   2937   1689.6   3112   1689.6   3175   1689.5   3217   1689.0   3259
GR1687.7   3323   1687.1   3349   1689.0   3369   1687.6   3375   1687.6   3392
GR1689.3   3402   1689.0   3429   1689.0   3437   1689.0   3493   1689.2   3510
GR1689.2   3532   1689.2   3543   1688.3   3562   1688.2   3588   1687.8   3615
GR1694.8   3635   1692.0   3655   1692.0   4865   1696.0   6450   1700.0   7530
NC   0.1     0.1     0.04
X1   2.03     45     2601   2684   1050    800   1076
GR1708.0   1240   1704.0   1290   1700.0   1300   1696.0   1330   1696.0   1685
GR1700.0   1700   1696.0   1785   1692.0   1960   1691.9   2000   1690.1   2040
GR1689.7   2080   1689.7   2212   1689.7   2287   1691.6   2440   1692.4   2487
GR1691.5   2563   1691.9   2601   1691.2   2617   1690.9   2631   1687.8   2635
GR1687.8   2656   1689.7   2668   1691.6   2679   1692.6   2684   1692.3   2709
GR1692.3   2739   1692.2   2766   1689.9   2776   1689.9   2823   1690.1   2850
GR1692.2   2874   1691.4   2924   1690.8   2957   1690.1   2980   1689.2   2998
GR1690.5   3015   1689.7   3026   1689.7   3047   1698.3   3080   1696.0   3105
GR1695.5   4495   1696.0   4740   1700.0   6550   1700.0   7450   1704.0   7570
NC   0.03     0.1     0.035
X1   2.23     38     2456   2740   1050   1000   1052
GR1716.0    900   1712.0   1110   1708.0   1250   1704.0   1450   1700.0   1605
GR1696.0   1885   1692.0   1910   1692.0   1935   1693.7   2000   1694.4   2187
GR1694.5   2353   1694.2   2420   1692.9   2429   1696.0   2456   1692.6   2482
GR1692.6   2494   1688.2   2506   1689.3   2552   1689.8   2560   1689.7   2606
GR1689.7   2628   1690.3   2646   1692.1   2660   1691.2   2689   1691.5   2701
GR1694.0   2740   1692.3   3010   1690.2   3022   1692.7   3056   1702.3   3092
GR1700.0   3120   1696.0   3130   1696.0   3980   1700.0   3985   1701.7   4020
GR1700.0   4060   1700.0   5800   1704.0   7440
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     12
   0.00        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   0.00        Centerline Station at 2333
   0.20        Centerline Station at 2200
   0.46        Centerline Station at 2833
   0.73        Centerline Station at 2440
   0.98        Centerline Station at 2540
   1.24        Centerline Station at 2918
   1.45        Centerline Station at 3015
   1.65        Centerline Station at 3173
   1.82        Centerline Station at 3349
   2.03        Centerline Station at 2646
   2.23        Centerline Station at 2593
T1         CORFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - 500-YEAR (d/s reach)
J1              2                0.0062                0.5
J2    -1                -1
J3   150
NC  .070    .050     .070      0.1      0.3
QT     1   94000
K1  0.00      26     2184     3356     1100     1100     1172
GR1660.0    1525  1656.0     1565  1652.0     1815  1650.8     2000  1649.1     2154
GR1646.5    2161  1646.5     2179  1651.4     2184  1646.6     2219  1644.0     2333
GR1644.2    2588  1644.9     3218  1652.5     3356  1645.1     3396  1646.8     3454
GR1653.3    3482  1647.6     3517  1647.2     3776  1646.8     4108  1648.0     4410
GR1652.0    4900  1652.0     4970  1650.0     5770  1652.0     6725  1656.0     7610
GR1657.3    7630
NC  0.08    0.08     0.08
X1  0.20      18     2000     3245     1000     1600     1060
GR1668.0    1700  1657.9     2000  1655.3     2266  1650.9     2504  1651.5     2847
GR1651.4    2969  1654.9     3245  1657.5     3707  1659.1     3965  1658.8     4067
GR1660.0    4087  1654.0     4230  1660.0     4330  1659.5     5260  1656.0     5860
GR1660.0    6750  1660.0     7250  1661.8     7290
X1  0.46      32     2338     2969     1225     2800     1380
GR1680.0    1550  1676.0     1570  1672.0     1595  1672.0     1880  1667.8     2000
GR1663.3    2088  1661.5     2167  1653.0     2180  1658.9     2192  1658.9     2204
GR1664.1    2216  1664.0     2231  1658.7     2338  1657.0     2782  1655.6     2792
GR1655.6    2813  1659.0     2969  1659.7     3550  1661.8     3850  1661.2     4025
GR1657.5    4045  1660.0     4075  1668.0     4425  1668.0     4545  1664.0     4565
GR1664.0    5375  1668.0     5395  1668.0     5420  1664.0     5710  1664.0     6745
GR1668.0    7105  1670.0     7725
X1  0.73      32     2324     3575     1300     2400     1436
GR1684.0    1680  1680.0     1995  1576.0     1975  1675.2     2000  1672.7     2103
GR1674.3    2119  1674.3     2147  1573.8     2166  1670.2     2249  1671.3     2324
GR1665.3    2810  1666.3     3275  1668.7     3575  1669.4     3778  1670.8     4365
GR1674.1    4481  1677.5     4513  1673.6     4576  1672.0     4796  1672.0     5036
GR1677.0    5736  1672.0     6436  1572.0     6940  1676.0     6970  1676.0     7010
GR1672.0    7030  1672.0     7350  1576.0     7410  1676.0     7440  1672.0     7730
GR1676.0    8370  1680.0     8640
NC  0.08    0.07     0.08
X1  0.98      20     2331     3773     1300     2320     1312
GR1688.0    1510  1684.0     1610  1580.0     1780  1677.6     2000  1675.5     2079
GR1678.3    2107  1678.3     2134  1677.3     2228  1676.5     2331  1678.7     2349
GR1673.2    3058  1674.6     3773  1574.8     4553  1676.5     4631  1676.0     4691
GR1675.0    4891  1676.0     5100  1580.0     7300  1681.5     7950  1684.0     8585
X1  1.24      21     2000     4140     1100      900     1344
GR1692.0    1440  1688.0     1455  1584.0     1545  1684.0     1770  1688.0     1820
GR1688.0    1900  1687.3     2000  1681.2     2167  1676.2     2265  1675.2     2918
GR1676.8    3294  1677.1     3639  1678.0     3909  1677.7     4140  1680.0     4220
GR1681.0    4250  1680.0     4280  1679.0     5480  1680.0     6030  1684.0     7180
GR1686.0    8495
X1  1.45      16     2442     3875     1300      900     1108
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GR1689.7    2096    1683.2    2132    1680.9    2215    1679.6    2442    1678.3    2832
GR1679.5    3527    1679.3    3716    1681.3    3875    1681.4    4015    1680.7    4060
GR1680.3    4075    1681.4    5175    1684.3    5975    1694.0    7175    1685.5    7540
GR1688.0    8380
NC   0.08    0.06      0.06
K1   1.65      25      3159    3203     975      725     1044
GR1720.0    1700    1716.0    1780    1712.0    1850    1708.0    1910    1692.6    2000
GR1681.2    2403    1681.9    2904    1682.9    3093    1681.3    3118    1683.3    3159
GR1680.7    3173    1683.1    3203    1682.5    3252    1680.9    3278    1683.1    3354
GR1682.3    3443    1681.5    3539    1682.7    3591    1681.4    3625    1683.3    3670
GR1685.1    4014    1685.0    4183    1684.4    5383    1688.0    6920    1692.0    8220
NC   0.08    0.08      0.04      .1      .3
K1   1.82      40      3175    3635     850     1050     948
GR1716.0    1780    1712.0    1850    1708.0    1910    1706.2    2000    1700.6    2084
GR1695.3    2155    1696.4    2197    1695.1    2243    1692.5    2272    1690.9    2307
GR1690.9    2378    1692.3    2411    1691.4    2448    1690.3    2479    1686.9    2812
GR1687.4    2987    1689.6    3112    1689.5    3175    1689.5    3217    1689.0    3259
GR1687.7    3323    1687.1    3349    1689.0    3369    1687.6    3375    1687.6    3392
GR1685.3    3412    1689.0    3429    1689.0    3437    1689.0    3493    1689.2    3510
GR1689.2    3532    1689.2    3543    1688.3    3562    1688.2    3588    1687.8    3615
GR1694.8    3635    1692.0    3655    1692.3    4865    1696.0    6450    1700.0    7530
NC   0.1     0.1      0.04
K1   2.03      45      2601    2664     1050     800     1076
GR1708.3    1240    1704.0    1290    1700.0    1300    1696.9    1330    1696.9    1685
GR1700.0    1700    1696.0    1785    1692.0    1960    1691.9    2000    1690.1    2040
GR1689.7    2080    1689.7    2212    1689.7    2287    1691.6    2440    1692.4    2487
GR1691.5    2563    1691.9    2601    1691.2    2617    1690.9    2631    1687.8    2635
GR1687.8    2656    1689.7    2668    1691.6    2679    1692.6    2684    1692.3    2709
GR1692.3    2739    1692.2    2766    1689.9    2776    1689.9    2823    1690.1    2850
GR1692.2    2874    1691.4    2924    1690.8    2957    1690.1    2930    1689.2    2998
GR1690.5    3015    1689.7    3026    1689.7    3047    1698.3    3080    1696.0    3105
GR1695.5    4495    1696.0    4740    1700.0    6550    1700.0    7450    1704.0    7570
NC   0.03      0.1      0.035
K1   2.23      38      2456    2740     1050     1000     1052
GR1716.0     900    1712.0    1110    1708.0    1250    1704.0    1450    1700.0    1605
GR1696.0    1885    1692.0    1910    1692.0    1935    1693.7    2000    1694.4    2187
GR1694.5    2353    1694.2    2420    1692.9    2429    1696.0    2456    1692.6    2482
GR1692.6    2494    1688.2    2506    1689.3    2552    1689.8    2550    1689.7    2606
GR1689.7    2628    1690.3    2646    1692.1    2660    1691.2    2689    1691.5    2701
GR1694.0    2740    1692.3    3010    1690.2    3022    1692.7    3056    1702.3    3092
GR1700.0    3120    1696.0    3130    1696.0    3980    1700.0    3985    1701.7    4020
GR1700.0    4060    1700.0    5900    1704.0    7440
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EOF..
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     12
    0.00          SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    0.00          Centerline Station at 2333
    0.20          Centerline Station at 2209
    0.46          Centerline Station at 2803
    0.73          Centerline Station at 2440
    0.98          Centerline Station at 2540
    1.24          Centerline Station at 2918
    1.45          Centerline Station at 3015
    1.65          Centerline Station at 3173
    1.82          Centerline Station at 3349
    2.03          Centerline Station at 2646
    2.23          Centerline Station at 2583
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 10-YEAR (d/s Reach)
J1                    2                    0.0062                    0.5
J2          1                -1
J3        150
NC      .070      .050      .070       0.1       0.3
QT          3      7800     14000     24000
ET                   5.1       5.1       5.1      1525      4970
K1      0.00          26      2184      3356      1100      1100      1172
GR1660.0      1525 1656.0      1565 1552.0      1815 1650.8      2000 1649.1      2154
GR1646.5      2161 1646.5      2179 1651.4      2184 1646.6      2219 1644.0      2333
GR1644.2      2588 1644.9      3218 1552.5      3356 1645.1      3396 1646.8      3454
GR1653.3      3482 1647.6      3517 1547.2      3776 1646.8      4108 1648.0      4410
GR1652.0      4930 1652.0      4970 1550.0      5770 1652.0      6725 1656.0      7610
GR1657.3      7630
NC      0.08      0.08      0.08
ET                   5.1       5.1       5.1      1700      4087
K1      0.20          18      2000      3245      1000      1600      1060
GR1668.0      1700 1657.9      2000 1655.3      2266 1650.9      2504 1651.5      2847
GR1651.4      2959 1654.9      3245 1557.5      3707 1659.1      3965 1658.8      4067
GR1660.0      4037 1654.0      4230 1560.0      4330 1659.5      5260 1656.0      5960
GR1650.0      5750 1660.0      7250 1551.8      7290
K1      0.46          23      2338      2969      1225      2800      1380
GR1680.0      1550 1676.0      1570 1672.0      1595 1672.0      1880 1667.8      2000
GR1663.3      2038 1661.5      2167 1653.0      2180 1658.9      2192 1659.9      2204
GR1664.1      2216 1664.0      2231 1658.7      2338 1657.0      2782 1655.6      2792
GR1655.6      2813 1659.0      2969 1659.7      3550 1661.8      3850 1661.2      4025
GR1657.5      4045 1660.0      4075 1568.0      4575
ET                   5.1       5.1       5.1      1680      5736
K1      0.73          32      2324      3575      1300      2400      1436
GR1684.0      1680 1680.0      1895 1676.0      1975 1675.2      2000 1672.7      2103
GR1674.3      2119 1674.3      2147 1673.8      2166 1670.2      2249 1671.3      2324
GR1665.3      2810 1666.3      3275 1568.7      3575 1669.4      3778 1670.8      4365
GR1674.1      4481 1677.5      4513 1573.6      4576 1672.0      4796 1672.0      5036
GR1677.0      5736 1672.0      6436 1672.0      6940 1676.0      6970 1676.0      7010
GR1672.0      7030 1672.0      7350 1676.0      7410 1676.0      7440 1672.0      7730
GR1676.0      8370 1680.0      8640
NC      0.08      0.07      0.08
ET                   5.1       5.1      2107
K1      0.98          20      2331      3773      1300      2320      1312
GR1688.0      1510 1684.0      1610 1580.0      1780 1677.6      2000 1675.5      2079
GR1678.3      2117 1678.3      2134 1677.3      2228 1676.5      2331 1678.7      2349
GR1673.2      3058 1674.6      3773 1674.8      4553 1676.5      4631 1676.0      4691
GR1675.0      4891 1676.0      5100 1680.0      7300 1681.5      7950 1684.0      8585
ET                   5.1       5.1       5.1      1900      7740
K1      1.24          21      2000      4143      1100       900      1344
GR1692.0      1440 1688.0      1455 1584.0      1545 1684.0      1770 1688.0      1820
GR1688.0      1980 1687.3      2000 1681.2      2167 1676.2      2265 1675.2      2918
GR1676.8      3294 1677.1      3639 1678.0      3909 1677.7      4140 1680.0      4220
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GR1681.0    4250   1680.0    4280   1679.0    5480   1680.0    6030   1684.0    7180
GR1686.5    7740
X1   1.45     16     2442     3875     1300      900     1108
GR1689.7    2096   1683.2    2132   1680.9    2215   1679.6    2442   1678.3    2832
GR1679.5    3527   1679.3    3716   1681.3    3875   1681.4    4015   1680.7    4060
GR1680.3    4075   1681.4    5175   1684.0    5975   1684.0    7175   1685.5    7540
GR1688.0    8380
NC   0.08   0.06     0.06
ET           5.1                    1700      4014
X1   1.65     25     3159     3203      975       725     1044
GR1720.0    1700   1716.0    1780   1712.0    1850   1708.0    1910   1692.6    2000
GR1681.2    2403   1681.9    2504   1682.9    3093   1681.3    3118   1683.3    3159
GR1680.7    3173   1683.1    3203   1682.5    3252   1680.9    3278   1683.1    3354
GR1682.3    3443   1681.5    3539   1682.7    3591   1681.4    3625   1683.3    3670
GR1685.1    4014   1685.0    4183   1684.4    5383   1688.0    6920   1692.0    8220
NC   0.08   0.08     0.04      .1       .3
ET           5.1      5.1     5.1      1780      3535
X1   1.82     40     3175     3635       850      1050      948
GR1716.0    1780   1712.0    1950   1708.0    1910   1706.2    2000   1700.6    2084
GR1695.3    2155   1696.4    2197   1695.1    2243   1692.5    2272   1690.9    2307
GR1690.9    2378   1692.3    2411   1691.4    2448   1690.3    2479   1686.9    2812
GR1687.4    2987   1689.6    3112   1689.6    3175   1689.5    3217   1689.0    3259
GR1687.7    3323   1687.1    3349   1689.0    3369   1687.6    3375   1687.6    3392
GR1689.3    3402   1689.0    3429   1689.0    3437   1689.0    3493   1689.2    3510
GR1689.2    3532   1689.2    3543   1688.3    3562   1688.2    3588   1687.8    3615
GR1694.8    3635   1692.0    3655   1692.0    4865   1696.0    6450   1700.0    7530
NC    0.1    0.1     0.04
ET           5.1      5.1     5.1      1240      3080
X1   2.03     45     2601     2684      1050       800     1076
GR1708.0    1240   1704.0    1290   1700.0    1300   1696.0    1330   1696.0    1685
GR1700.0    1700   1696.0    1785   1692.0    1960   1691.9    2000   1690.1    2040
GR1689.7    2080   1689.7    2212   1689.7    2287   1691.6    2440   1692.4    2487
GR1691.5    2563   1691.9    2601   1691.2    2617   1690.9    2631   1687.8    2635
GR1687.8    2656   1689.7    2668   1691.6    2679   1692.6    2684   1692.3    2709
GR1692.3    2739   1692.2    2766   1689.9    2776   1689.9    2823   1690.1    2850
GR1692.2    2874   1691.4    2924   1690.6    2957   1690.1    2980   1689.2    2998
GR1690.5    3015   1689.7    3026   1689.7    3047   1698.3    3080   1696.0    3105
GR1695.5    4495   1696.0    4740   1700.0    6550   1700.0    7450   1704.0    7570
NC   0.03    0.1     0.035
ET           5.1      5.1     5.1       900      3092
X1   2.23     38     2456     2740      1050      1000     1052
GR1716.0     900   1712.0    1110   1708.0    1250   1704.0    1450   1700.0    1605
GR1696.0    1885   1692.0    1910   1692.0    1935   1693.7    2010   1694.4    2187
GR1694.5    2353   1694.2    2420   1692.9    2429   1696.0    2456   1692.6    2482
GR1692.6    2494   1688.2    2506   1689.3    2552   1689.8    2560   1689.7    2606
GR1689.7    2628   1690.3    2646   1692.1    2660   1691.2    2689   1691.5    2701
GR1694.0    2740   1692.3    3010   1690.2    3022   1692.7    3056   1702.3    3092
GR1700.0    3120   1696.0    3130   1696.0    3980   1700.0    3985   1701.7    4020
GR1700.0    4060   1700.0    5800   1704.0    7440
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR (d/s reach)
J1               3                    0.0062                0.5
J2       2              -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 100-YEAR (d/s reach)
J1               4                    0.0062                0.5
J2     15               -1


ER
EOF..
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12
 0.00        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
 0.00        Centerline Station at 2333
 0.20        Centerline Station at 2200
 0.46        Centerline Station at 2803
 0.73        Centerline Station at 2440
 0.98        Centerline Station at 2540
 1.24        Centerline Station at 2918
 1.45        Centerline Station at 3015
 1.65        Centerline Station at 3173
 1.82        Centerline Station at 3349
 2.03        Centerline Station at 2646
 2.23        Centerline Station at 2583
T1       CCRFCD/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       LAS VEGAS WASH - NONDAMAGING FLOWS (d/s Reach)
J1              2                0.3062                0.5
J2       1             -1
J3     150
NC   .070     .050     .070      0.1      0.3
BT       3    5500     5600     5700
ET             5.1      5.1      5.1     1525     4970
X1   0.00       26     2184     3356     1100     1100     1172
GR1660.0     1525   1656.0     1565   1652.0     1815   1650.8     2000   1649.1     2154
GR1646.5     2161   1646.5     2179   1651.4     2184   1646.6     2219   1644.0     2333
GR1644.2     2588   1644.9     3218   1652.5     3356   1645.1     3396   1646.8     3454
GR1653.3     3482   1647.6     3617   1647.2     3776   1646.8     4108   1648.0     4410
GR1652.0     4900   1652.0     4970   1650.0     5770   1652.0     6725   1656.0     7610
GR1657.3     7630
NC   0.08    0.08     0.08
ET             5.1      5.1      5.1     1700     4087
X1   0.20       18     2000     3245     1000     1600     1060
GR1668.0     1700   1657.9     2000   1655.3     2266   1650.9     2504   1651.5     2847
GR1651.4     2969   1654.9     3245   1657.5     3707   1659.1     3965   1658.8     4067
GR1660.0     4087   1654.0     4230   1660.0     4330   1659.5     5250   1656.0     5860
GR1660.0     6750   1660.0     7250   1561.8     7290
X1   0.46       23     2338     2969     1225     2800     1380
GR1680.0     1550   1676.0     1570   1672.0     1595   1672.0     1980   1667.8     2000
GR1663.3     2038   1661.5     2167   1663.0     2180   1658.9     2192   1658.9     2204
GR1664.1     2216   1664.0     2231   1658.7     2338   1657.0     2732   1655.6     2792
GR1655.6     2813   1659.0     2969   1659.7     3550   1661.8     3850   1661.2     4025
GR1657.5     4045   1660.0     4075   1668.0     4575
ET             5.1      5.1      5.1     1680     5736
X1   0.73       32     2324     3575     1300     2400     1436
GR1684.0     1680   1680.0     1895   1576.0     1975   1675.2     2000   1672.7     2103
GR1674.3     2119   1674.3     2147   1573.8     2166   1670.2     2249   1671.3     2324
GR1665.3     2810   1666.3     3275   1568.7     3575   1669.4     3778   1670.8     4365
GR1674.1     4481   1677.5     4513   1673.6     4576   1672.0     4796   1672.0     5036
GR1677.0     5736   1672.0     6436   1672.0     6940   1676.0     6970   1676.0     7010
GR1672.0     7030   1672.0     7350   1676.0     7410   1676.0     7440   1672.0     7730
GR1676.0     8370   1680.0     8640
NC   0.08    0.07     0.08
ET             5.1      5.1      5.1     2107
X1   0.98       20     2331     3773     1300     2320     1312
GR1688.0     1510   1684.0     1610   1680.0     1780   1677.6     2000   1675.5     2079
GR1678.3     2107   1678.3     2134   1677.3     2228   1676.5     2331   1678.7     2349
GR1673.2     3058   1674.6     3773   1674.8     4553   1676.5     4631   1676.0     4691
GR1675.0     4891   1676.0     5100   1680.0     7300   1681.5     7950   1684.0     8585
ET             5.1      5.1      5.1     1900     7740
X1   1.24       21     2000     4140     1100      900     1344
GR1692.0     1440   1688.0     1455   1684.0     1545   1684.0     1770   1688.0     1820
GR1688.0     1900   1687.3     2000   1681.2     2167   1676.2     2265   1675.2     2918
GR1676.8     3294   1677.1     3635   1678.0     3909   1677.7     4140   1680.0     4220
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GR1681.0    4250   1680.0    4260   1679.0    5480   1680.0    6030   1684.0    7180
GR1686.5    7740
X1   1.45     16     2442     3875     1300      900     1108
GR1689.7    2096   1683.2    2132   1680.9    2215   1679.6    2442   1678.3    2832
GR1679.5    3527   1679.3    3716   1681.3    3875   1681.4    4015   1680.7    4060
GR1680.3    4075   1681.4    5175   1684.0    5975   1684.0    7175   1685.5    7540
GR1688.0    8380
NC   0.08   0.06     0.06
ET           5.1      5.1      5.1     1700     4014
X1   1.65     25     3159     3203      975      725     1044
GR1720.0    1700   1716.0    1780   1712.0    1850   1708.0    1910   1692.6    2000
GR1681.2    2403   1681.9    2904   1582.9    3093   1681.3    3118   1683.3    3159
GR1680.7    3173   1683.1    3203   1682.5    3252   1680.9    3278   1683.1    3354
GR1682.3    3443   1681.5    3539   1682.7    3591   1681.4    3625   1683.3    3670
GR1685.1    4014   1685.0    4183   1684.4    5383   1688.0    6920   1692.0    8220
NC   0.08   0.08     0.04      .1      .3
ET           5.1      5.1      5.1     1780     3635
X1   1.82     40     3175     3695      850     1050      948
GR1716.0    1780   1712.0    1850   1708.0    1910   1706.2    2000   1700.6    2084
GR1695.3    2155   1696.4    2197   1695.1    2243   1692.5    2272   1690.9    2307
GR1690.9    2378   1692.3    2411   1691.4    2448   1690.3    2479   1686.9    2812
GR1687.4    2987   1689.6    3112   1589.6    3175   1689.5    3217   1689.0    3259
GR1687.7    3323   1687.1    3349   1689.0    3369   1687.6    3375   1687.6    3392
GR1689.3    3402   1689.0    3429   1689.1    3437   1689.0    3493   1689.2    3510
GR1689.2    3532   1689.2    3543   1688.3    3562   1688.2    3588   1687.9    3615
GR1694.8    3635   1692.0    3655   1592.0    4865   1696.0    6450   1700.0    7530
NC    0.1    0.1     0.04
ET           5.1      5.1      5.1     1240     3080
X1   2.03     45     2601     2684     1050      800     1076
GR1708.0    1240   1704.0    1290   1700.0    1330   1696.0    1330   1696.0    1685
GR1700.0    1700   1696.0    1785   1592.0    1960   1691.9    2030   1690.1    2040
GR1689.7    2080   1689.7    2212   1689.7    2287   1691.6    2440   1692.4    2487
GR1691.5    2563   1691.9    2601   1591.2    2617   1690.9    2631   1687.8    2635
GR1687.8    2656   1689.7    2668   1691.6    2679   1692.6    2684   1692.3    2709
GR1692.3    2739   1692.2    2766   1689.9    2776   1689.9    2823   1690.1    2850
GR1692.2    2874   1691.4    2924   1690.8    2957   1690.1    2980   1689.2    2998
GR1690.5    3015   1689.7    3026   1689.7    3047   1698.3    3080   1696.0    3105
GR1695.5    4495   1696.0    4740   1700.0    6550   1700.0    7450   1704.0    7570
NC   0.03    0.1    0.035
ET           5.1      5.1      5.1      900     3092
X1   2.23     38     2456     2740     1050     1000     1052
GR1715.0     900   1712.0    1110   1708.0    1250   1704.0    1450   1700.0    1605
GR1696.0    1885   1692.0    1910   1692.0    1935   1693.7    2000   1694.4    2187
GR1694.5    2353   1694.2    2420   1592.9    2429   1696.0    2456   1692.6    2482
GR1692.6    2494   1688.2    2506   1689.3    2552   1689.8    2560   1689.7    2606
GR1689.7    2628   1690.3    2646   1592.1    2660   1691.2    2689   1691.5    2701
GR1694.8    2740   1692.3    3010   1690.2    3022   1692.7    3056   1702.3    3092
GR1700.0    3120   1696.0    3130   1696.0    3980   1700.0    3985   1701.7    4020
GR1700.0    4060   1700.0    5800   1704.0    7440
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR (d/s reach)
J1               3                    0.3062                0.5
J2       2              -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 100-YEAR (d/s reach)
J1               4                    0.3062                0.5
J2     15               -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   6-MAY-88 TIME   10:42:30          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - NONDAMAGING FLOWS (d/s Reach)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.006200      0.00      0.5       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.370     0.050     0.070     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      3.000  5500.000  5600.000  5700.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     5.100     5.100     5.100  1525.000  4970.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above Advance Wastewater Treatment Plant)
                Centerline Station at 2333
X1      0.000    26.000  2184.000  3356.000  1100.000  1100.000  1172.000     0.000     0.000     0.000
GR   1660.300  1525.000  1656.000  1565.000  1652.000  1815.000  1650.800  2000.000  1649.100  2154.000
GR   1646.500  2161.000  1646.500  2179.000  1651.400  2184.000  1646.600  2219.000  1644.000  2333.000
GR   1644.200  2588.000  1644.900  3218.000  1652.500  3356.000  1645.100  3396.000  1646.800  3454.000
GR   1653.300  3482.000  1647.600  3517.000  1647.200  3776.000  1646.800  4108.000  1648.000  4410.000
GR   1652.300  4900.000  1652.000  4970.000  1650.000  5770.000  1652.000  6725.000  1656.000  7610.000
GR   1657.300  7630.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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NC	0.080	0.080	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1700.000	4087.000	0.000	0.000	0.000	0.000
		Centerline Station at 2200								
X1	0.200	18.000	2000.000	3245.000	1000.000	1600.000	1060.000	0.000	0.000	0.000
GR	1668.000	1700.000	1657.900	2000.000	1655.300	2266.000	1650.900	2504.000	1651.500	2847.000
GR	1651.400	2969.000	1654.900	3245.000	1657.500	3707.000	1659.100	3965.000	1658.800	4067.000
GR	1660.000	4087.000	1654.000	4230.000	1660.000	4330.000	1659.500	5260.000	1656.000	5860.000
GR	1660.000	6750.000	1660.000	7250.000	1661.800	7290.000	0.000	0.000	0.000	0.000
		Centerline Station at 2803								
X1	0.462	23.000	2338.000	2969.000	1225.000	2800.000	1380.000	0.000	0.000	0.000
GR	1680.000	1550.000	1676.000	1570.000	1672.000	1595.000	1672.000	1880.000	1667.800	2000.000
GR	1663.300	2088.000	1661.500	2167.000	1663.000	2180.000	1658.900	2192.000	1658.900	2204.000
GR	1664.100	2216.000	1664.000	2231.000	1658.700	2338.000	1657.000	2782.000	1655.600	2792.000
GR	1655.500	2813.000	1659.000	2969.000	1659.700	3550.000	1661.800	3850.000	1661.200	4025.000

GR	1657.500	4045.000	1660.000	4075.000	1668.000	4575.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1680.000	5736.000	0.000	0.000	0.000	0.000
		Centerline Station at 2440								
X1	0.730	32.000	2324.000	3575.000	1300.000	2400.000	1436.000	0.000	0.000	0.000
GR	1684.000	1680.000	1680.000	1895.000	1676.000	1975.000	1675.200	2000.000	1672.700	2103.000
GR	1674.300	2119.000	1674.300	2147.000	1673.900	2166.000	1670.200	2249.000	1671.300	2324.000
GR	1665.300	2810.000	1666.300	3275.000	1668.700	3575.000	1669.400	3778.000	1670.800	4365.000
GR	1674.100	4481.000	1677.500	4513.000	1673.600	4576.000	1672.000	4796.000	1672.000	5036.000
GR	1677.000	5736.000	1672.000	6436.000	1672.000	6940.000	1676.000	6970.000	1676.000	7010.000
GR	1672.000	7030.000	1672.000	7390.000	1676.000	7410.000	1676.000	7440.000	1672.000	7730.000
GR	1676.000	8370.000	1680.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.080	0.070	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	2107.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2540								
X1	0.980	20.000	2331.000	3773.000	1300.000	2320.000	1312.000	0.000	0.000	0.000
GR	1688.000	1510.000	1684.000	1610.000	1680.000	1780.000	1677.600	2000.000	1675.500	2079.000
GR	1678.300	2107.000	1678.300	2134.000	1677.300	2228.000	1676.500	2331.000	1678.700	2349.000
GR	1673.200	3058.000	1674.600	3773.000	1674.800	4553.000	1676.500	4631.000	1676.000	4691.000
GR	1675.000	4891.000	1676.000	5100.000	1680.000	7300.000	1681.500	7950.000	1684.000	8585.000
ET	0.000	5.100	5.100	5.100	1900.000	7740.000	0.000	0.000	0.000	0.000
		Centerline Station at 2918								
X1	1.240	21.000	2000.000	4140.000	1100.000	900.000	1344.000	0.000	0.000	0.000
GR	1692.000	1440.000	1688.000	1455.000	1684.000	1545.000	1684.000	1770.000	1688.000	1820.000
GR	1688.000	1900.000	1687.300	2000.000	1681.200	2167.000	1676.200	2265.000	1675.200	2918.000
GR	1676.800	3294.000	1677.100	3639.000	1678.000	3909.000	1677.700	4140.000	1680.000	4220.000
GR	1681.000	4250.000	1680.000	4280.000	1679.000	5480.000	1680.000	6030.000	1684.000	7180.000
GR	1686.500	7740.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 3015								
X1	1.450	16.000	2442.000	3875.000	1300.000	900.000	1108.000	0.000	0.000	0.000
GR	1689.700	2096.000	1683.200	2132.000	1680.900	2215.000	1679.600	2442.000	1678.300	2832.000
GR	1679.500	3527.000	1679.300	3716.000	1681.300	3875.000	1681.400	4015.000	1680.700	4060.000
GR	1680.300	4075.000	1681.400	5175.000	1684.000	5975.000	1684.000	7175.000	1685.500	7540.000
GR	1688.000	8380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.080	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1700.000	4014.000	0.000	0.000	0.000	0.000
		Centerline Station at 3173								
X1	1.550	25.000	3159.000	3203.000	975.000	725.000	1044.000	0.000	0.000	0.000
GR	1720.000	1700.000	1716.000	1780.000	1712.000	1850.000	1708.000	1910.000	1692.600	2000.000
GR	1681.200	2403.000	1681.900	2904.000	1682.900	3093.000	1681.300	3118.000	1683.300	3159.000
GR	1680.700	3173.000	1683.100	3203.000	1682.500	3252.000	1680.900	3278.000	1683.100	3354.000
GR	1682.300	3443.000	1681.500	3539.000	1682.700	3591.000	1681.400	3625.000	1683.300	3670.000
GR	1685.100	4014.000	1685.000	4183.000	1684.400	5383.000	1688.000	6920.000	1692.000	8220.000

NC	0.080	0.080	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1780.000	3635.000	0.000	0.000	0.000	0.000

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Centerline Station at 3349

X1	1.820	40.000	3175.000	3635.000	850.000	1050.000	548.000	0.000	0.000	0.000
GR	1716.000	1780.000	1712.000	1850.000	1708.000	1910.000	1706.200	2000.000	1700.600	2084.000
GR	1695.300	2155.000	1696.400	2197.000	1695.100	2243.000	1692.500	2272.000	1690.900	2307.000
GR	1690.900	2378.000	1692.300	2411.000	1691.400	2448.000	1690.300	2479.000	1686.900	2812.000
GR	1687.400	2987.000	1689.600	3112.000	1689.600	3175.000	1689.500	3217.000	1689.000	3259.000
GR	1687.700	3323.000	1687.100	3349.000	1689.000	3369.000	1687.600	3375.000	1687.600	3392.000
GR	1689.300	3402.000	1689.000	3429.000	1689.000	3437.000	1689.000	3493.000	1689.200	3510.000
GR	1689.200	3532.000	1689.200	3543.000	1688.300	3562.000	1688.200	3588.000	1687.800	3615.000
GR	1694.800	3635.000	1692.000	3655.000	1692.000	4865.000	1696.000	6450.000	1700.000	7530.000

NC	0.100	0.100	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1240.000	3080.000	0.000	0.000	0.000	0.000

Centerline Station at 2546

X1	2.130	45.000	2601.000	2684.000	1050.000	800.000	1076.000	0.000	0.000	0.000
GR	1708.000	1240.000	1704.000	1290.000	1700.000	1300.000	1696.000	1330.000	1696.000	1685.000
GR	1700.000	1700.000	1696.000	1785.000	1692.000	1960.000	1691.900	2000.000	1690.100	2040.000
GR	1689.700	2080.000	1689.700	2212.000	1689.700	2287.000	1691.600	2440.000	1692.400	2487.000
GR	1691.500	2563.000	1691.900	2601.000	1691.200	2617.000	1690.900	2631.000	1687.800	2635.000
GR	1687.300	2656.000	1689.700	2668.000	1691.600	2679.000	1692.600	2684.000	1692.300	2709.000
GR	1692.300	2739.000	1692.200	2766.000	1689.900	2776.000	1689.900	2823.000	1690.100	2850.000
GR	1692.200	2874.000	1691.400	2924.000	1690.800	2957.000	1690.100	2980.000	1689.200	2998.000
GR	1690.500	3015.000	1689.700	3026.000	1689.700	3047.000	1698.300	3080.000	1696.000	3105.000
GR	1695.500	4495.000	1696.000	4740.000	1700.000	6550.000	1700.000	7450.000	1704.000	7570.000

NC	0.030	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	900.000	3092.000	0.000	0.000	0.000	0.000

Centerline Station at 2583

X1	2.230	38.000	2456.000	2740.000	1050.000	1000.000	1052.000	0.000	0.000	0.000
GR	1716.000	900.000	1712.000	1110.000	1708.000	1250.000	1704.000	1450.000	1700.000	1605.000
GR	1696.300	1885.000	1692.000	1910.000	1692.000	1935.000	1693.700	2000.000	1694.400	2187.000
GR	1694.500	2353.000	1694.200	2420.000	1692.900	2429.000	1696.000	2456.000	1692.600	2482.000
GR	1692.600	2494.000	1688.200	2506.000	1689.300	2552.000	1689.800	2560.000	1689.700	2606.000
GR	1689.700	2628.000	1690.300	2646.000	1692.100	2660.000	1691.200	2689.000	1691.500	2701.000
GR	1694.300	2740.000	1692.300	3010.000	1690.200	3022.000	1692.700	3056.000	1702.300	3052.000
GR	1700.000	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.000	4060.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	2.55	1646.55	0.00	0.00	1646.66	0.11	0.00	0.00	1651.40
5500.	0.	5422.	78.	1.	2052.	42.	0.	0.	1652.50

0.00	0.23	2.64	1.95	0.070	0.070	0.050	0.000	1644.00	2160.86
0.006150	1100.	1172.	1100.	0	0	7	0.00	1102.31	3445.48

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1700.0 4097.0 TYPE= 1 TARGET= 2387.000

Centerline Station at 2200

0.20	3.22	1654.12	0.00	0.00	1654.25	0.13	7.58	0.01	1657.50
5500.	0.	5500.	0.	0.	1900.	0.	49.	24.	1654.90
0.10	0.00	2.90	0.00	0.080	0.080	0.080	0.000	1650.90	2329.80
0.008361	1000.	1060.	1600.	4	0	0	0.00	853.72	3183.53

*SECNO 0.450

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	5.22	1660.82	0.00	0.00	1660.88	0.06	6.62	0.01	1658.70
5500.	87.	4167.	1245.	78.	2020.	1053.	146.	76.	1659.00
0.33	1.11	2.06	1.18	0.080	0.080	0.080	0.000	1655.60	2186.39
0.002614	1225.	1380.	2800.	4	0	0	0.00	1535.08	4126.00

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1681.0 5736.0 TYPE= 1 TARGET= 4056.000

Centerline Station at 2440

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
0.73	3.00	1668.30	0.00	0.00	1668.45	0.15	7.54	0.03	1671.30
5500.	0.	5500.	0.	0.	1777.	239.	126.	1668.70	
0.47	0.00	3.09	0.00	0.080	0.080	0.080	0.000	1665.30	2566.99
0.012181	1300.	1436.	2400.	4	0	0	0.00	958.04	3525.03

*SECNO 0.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2107.0 8585.0 TYPE= 1 TARGET= -2107.000

Centerline Station at 2540

0.98	2.98	1676.18	0.00	0.00	1676.22	0.03	7.76	0.01	1676.50
5500.	0.	3495.	2005.	0.	2211.	1497.	339.	194.	1674.60
0.75	0.00	1.58	1.34	0.080	0.080	0.070	0.000	1673.20	2672.89
0.002856	1300.	1312.	2320.	2	0	0	0.00	2478.31	5203.06

*SECNO 1.240

3470 ENCROACHMENT STATIONS= 1900.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	3.60	1678.80	0.00	0.00	1678.83	0.02	2.61	0.00	1687.30
5500.	0.	5488.	12.	0.	4346.	21.	455.	255.	1677.70
1.03	0.00	1.26	0.55	0.080	0.080	0.070	0.000	1675.20	2213.97
0.001562	1100.	1344.	900.	4	0	0	0.00	1964.42	4178.39

*SECNO 1.450

3265 DIVIDED FLOW

Centerline Station at 3015

1.45	2.88	1681.18	0.00	0.00	1681.22	0.04	2.39	0.01	1679.60

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     5500.      213.     5001.      285.      214.     2938.      409.      556.      311.    1681.30
      1.22      1.00      1.70      0.70     0.080     0.080     0.070     0.000   1678.30   2204.73
 0.003199     1300.     1108.      900.         3         0         0      0.00   2591.78   4959.54

 *SECNO 1.650

 3470 ENCROACHMENT STATIONS=     1703.0     4014.0  TYPE=     1  TARGET=    2314.000

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                Centerline Station at 3173
      1.65      3.43   1684.13      0.00      0.00   1684.19      0.05      2.96      0.00   1683.30
      5500.     3346.      221.     1934.     1899.      97.      955.      627.      354.    1683.10
      1.36      1.76      2.28      2.02     0.080     0.060     0.060     0.000   1680.70   2299.35
 0.002986      975.     1044.      725.         4         0         0      0.00   1529.64   3828.99

 CCHV=   0.100  CEHV=   0.300
 *SECNO 1.820

 3265 DIVIDED FLOW


 3470 ENCROACHMENT STATIONS=     1781.0     3635.0  TYPE=     1  TARGET=    1855.000
                Centerline Station at 3349
      1.82      2.68   1689.58      0.00      0.00   1689.87      0.28      5.61      0.07   1689.60
      5500.     3514.     1996.        0.       913.      402.        0.      671.      380.  100000.00
      1.42      3.85      4.94      0.00     0.080     0.040     0.080     0.000   1686.98   2549.26
 0.019869      850.      548.     1050.         4         0         0      0.00    999.56   3620.09

 *SECNO 2.030

 3470 ENCROACHMENT STATIONS=     1241.0     3080.0  TYPE=     1  TARGET=    1840.000
                Centerline Station at 2646
      2.03      6.10   1693.90      0.00      0.00   1693.97      0.07      4.08      0.02   1691.90
      5500.     2828.     1234.     1439.     2115.      330.     1099.      727.      406.    1692.60
      1.57      1.34      3.74      1.31     0.100     0.040     0.100     0.000   1687.80   1877.23
 0.001652     1050.     1076.       80.         6         0         0      0.00   1185.85   3063.08

 *SECNO 2.230

 3265 DIVIDED FLOW


 3470 ENCROACHMENT STATIONS=      903.0     3092.0  TYPE=     1  TARGET=    2192.000
                Centerline Station at 2583
      2.23      6.86   1695.06      0.00      0.00   1695.19      0.13      1.20      0.02   1696.00
      5500.     1128.     3851.      521.      619.     1183.      693.      799.      434.    1694.00
      1.68      1.82      3.25      0.75     0.030     0.035     0.100     0.000   1686.20   1890.90
 0.000853     1050.     1052.     1000.         2         0         0      0.00   1158.50   3064.84

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   6-MAY-88     10:42:31                                                          PAGE     7


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1         CCRFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         LAS VEGAS WASH - 50-YEAR (d/s reach)
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J1	ICHECK	INN	KINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.006200	0.00	0.5	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	2.57	1646.57	0.00	1646.55	1646.68	0.11	0.00	0.00	1651.40
5600.	0.	5518.	81.	1.	2075.	43.	0.	0.	1652.50
0.00	0.29	2.66	1.90	0.070	0.070	0.050	0.000	1644.00	2160.81
0.006158	1100.	1172.	1100.	0	0	7	0.00	1104.58	3446.22

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1701.0 4087.0 TYPE= 1 TARGET= 2387.000
Centerline Station at 2200

0.20	3.25	1654.15	0.00	1654.12	1654.28	0.13	7.59	0.01	1657.30
5600.	0.	5600.	0.	0.	1924.	0.	49.	24.	1654.90
0.10	0.00	2.91	0.00	0.080	0.080	0.080	0.000	1650.90	2328.30
0.008364	1000.	1060.	1601.	4	0	0	0.00	857.42	3185.72

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	5.25	1660.85	0.00	1660.82	1660.91	0.06	6.62	0.01	1658.70
5600.	89.	4223.	1287.	80.	2038.	1077.	148.	76.	1659.00
0.33	1.12	2.07	1.19	0.080	0.080	0.080	0.000	1655.60	2186.31
0.002607	1225.	1380.	2803.	4	0	0	0.00	1541.89	4127.80

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1681.0 5736.0 TYPE= 1 TARGET= 4056.000
Centerline Station at 2440

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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      0.75      3.02   1668.32      0.00   1668.37   1668.47      0.15      7.54      0.05   1671.30
      5600.        0.      5600.        0.        0.      1799.        1.       242.       126.      1668.70
       0.47      0.00      3.11      0.00     0.080     0.080     0.080     0.000   1665.30   2565.14
   0.012201     1300.      1436.      2400.         4         0         0      0.00    962.74   3527.88

 *SECNO 0.980

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=    2107.0     8585.0   TYPE=      1   TARGET=    -2107.000
                    Centerline Station at 2540
       0.98      3.00   1676.20      0.00   1676.18   1676.24      0.04      7.75      0.01   1676.50
      5600.        0.      3543.      2057.        0.      2233.      1526.       343.       195.      1674.60
       0.75      0.00      1.59      1.35     0.080     0.080     0.070     0.000   1673.20   2670.23
   0.002847     1300.      1312.      2320.         2         0         0      0.00   2495.73   5214.40

 *SECNO 1.240

 3470 ENCROACHMENT STATIONS=    1900.0     7740.0   TYPE=      1   TARGET=     5840.000
                    Centerline Station at 2918
       1.24      3.62   1678.82      0.00   1678.80   1678.85      0.03      2.61      0.00   1687.30
      5600.        0.      5587.       13.        0.      4386.       22.       462.       256.      1677.70
       1.02      0.00      1.27      0.57     0.080     0.080     0.070     0.000   1675.20   2213.55
   0.001570     1100.      1344.       980.         4         0         0      0.00   1965.57   4179.12

 *SECNO 1.450

 3265 DIVIDED FLOW

                    Centerline Station at 3015
       1.45      2.91   1681.21      0.00   1681.18   1681.25      0.04      2.40      0.01   1679.60
      5600.      222.      5074.      305.       219.      2970.      430.       563.       313.      1681.30
       1.21      1.01      1.71      0.71     0.080     0.080     0.070     0.000   1678.30   2203.92
   0.003179     1300.      1108.       900.         3         0         0      0.00   2618.43   4982.12

 *SECNO 1.650

 3470 ENCROACHMENT STATIONS=    1700.0     4014.0   TYPE=      1   TARGET=     2314.000

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                    Centerline Station at 3173
       1.65      3.45   1684.15      0.00   1684.13   1684.21      0.06      2.95      0.00   1683.30
      5600.     3402.       224.      1974.      1916.        98.      967.       635.       356.      1683.10
       1.35      1.78      2.30      2.04     0.080     0.060     0.060     0.000   1680.70   2298.66
   0.003001      975.      1044.       725.         4         0         0      0.00   1534.09   3832.75

 CCHV=    0.100  CEHV=    0.300
 *SECNO 1.820

 3470 ENCROACHMENT STATIONS=    1781.0     3635.0   TYPE=      1   TARGET=     1855.000
                    Centerline Station at 3349
       1.82      2.71   1689.61      0.00   1689.58   1689.90      0.28      5.62      0.07   1689.60
      5600.     3564.      2036.        0.       926.       412.        0.       680.       383.    100000.00
       1.41      3.85      4.94      0.00     0.080     0.040     0.030     0.000   1686.90   2547.10
   0.019696      850.       948.      1050.         4         0         0      0.00   1073.06   3620.16

 *SECNO 2.030

 3470 ENCROACHMENT STATIONS=    1241.0     3080.0   TYPE=      1   TARGET=     1840.000
                    Centerline Station at 2646
       2.03      6.13   1693.93      0.00   1693.90   1694.00      0.07      4.08      0.02   1691.90
      5600.     2881.      1263.      1465.      2138.       332.     1112.       737.       409.      1692.60
       1.56      1.35      3.77      1.32     0.100     0.040     0.100     0.000   1687.80   1875.81
   0.001659     1050.      1076.       800.         6         0         0      0.00   1187.40   3063.21
```

*SECNO 2.250

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 901.0 3092.0 TYPE= 1 TARGET= 2192.000
Centerline Station at 2583

2.23	6.90	1695.10	0.00	1695.06	1695.22	0.13	1.20	0.02	1696.00
5500.	1173.	3894.	533.	637.	1192.	704.	809.	437.	1694.00
1.67	1.84	3.27	0.75	0.030	0.035	0.100	0.000	1638.20	1890.69
0.000851	1050.	1052.	1001.	2	0	0	0.00	1159.37	3064.96

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORPCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - 100-YEAR (d/s reach)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	3.	4.	3.	0.	0.036200	0.00	0.5	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	2.59	1646.59	0.00	1646.55	1646.70	0.11	0.00	0.00	1651.40
5700.	1.	5615.	84.	2.	2097.	44.	0.	0.	1652.50
0.00	0.34	2.68	1.92	0.070	0.070	0.050	0.000	1644.00	2160.75
0.006165	1100.	1172.	1100.	0	0	7	0.00	1106.83	3446.95

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1701.0 4087.0 TYPE= 1 TARGET= 2387.000
Centerline Station at 2200

0.20	5.27	1654.17	0.00	1654.12	1654.31	0.13	7.60	0.01	1657.90
5700.	0.	5700.	0.	0.	1947.	0.	50.	24.	1654.90
0.10	0.00	2.93	0.00	0.080	0.080	0.080	0.000	1650.90	2326.80
0.008365	1000.	1060.	1600.	4	0	0	0.00	861.11	3187.91

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	5.28	1660.88	0.00	1660.82	1660.94	0.06	6.62	0.01	1658.70
5700.	92.	4280.	1328.	82.	2056.	1101.	150.	76.	1659.00
0.33	1.13	2.08	1.21	0.080	0.080	0.080	0.000	1655.60	2186.23
0.002600	1225.	1380.	2900.	4	0	0	0.00	1548.58	4129.57

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1680.0 5736.0 TYPE= 1 TARGET= 4056.000

Centerline Station at 2440

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TCPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
0.73	3.05	1668.35	0.00	1668.30	1668.50	0.15	7.53	0.03	1671.30
5700.	0.	5700.	0.	0.	1821.	0.	245.	127.	1668.70
0.47	0.00	3.13	0.00	0.080	0.080	0.080	0.000	1665.30	2563.26
0.012210	1300.	1436.	2400.	4	0	0	0.00	967.52	3530.78

*SECNO 0.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2107.0 8585.0 TYPE= 1 TARGET= -2107.000

Centerline Station at 2540

0.98	3.02	1676.22	0.00	1676.18	1676.25	0.04	7.74	0.01	1676.50
5700.	0.	3592.	2108.	0.	2256.	1554.	348.	196.	1674.60
0.75	0.00	1.59	1.36	0.080	0.080	0.070	0.000	1673.20	2667.62
0.002838	1300.	1312.	2320.	2	0	0	0.00	2512.85	5225.55

*SECNO 1.240

3470 ENCROACHMENT STATIONS= 1901.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	3.64	1678.84	0.00	1678.80	1678.87	0.03	2.61	0.00	1687.30
5700.	0.	5687.	13.	0.	4426.	23.	468.	257.	1677.70
1.02	0.00	1.28	0.58	0.080	0.080	0.070	0.000	1675.20	2213.15
0.001578	1100.	1344.	900.	4	0	0	0.00	1966.70	4179.85

*SECNO 1.450

3265 DIVIDED FLOW

Centerline Station at 3015

1.45	2.93	1681.23	0.00	1681.18	1681.27	0.04	2.40	0.01	1679.60
5700.	230.	5146.	324.	224.	3002.	452.	570.	314.	1681.30
1.21	1.02	1.71	0.72	0.080	0.080	0.070	0.000	1678.30	2203.10
0.003160	1300.	1108.	900.	3	0	0	0.00	2645.07	5004.71

*SECNO 1.650

3470 ENCROACHMENT STATIONS= 1703.0 4014.0 TYPE= 1 TARGET= 2314.000

Centerline Station at 3173

1.65	3.47	1684.17	0.00	1684.13	1684.23	0.06	2.95	0.00	1683.30
5700.	3458.	228.	2014.	1932.	99.	980.	644.	358.	1683.10
1.35	1.79	2.32	2.06	0.080	0.060	0.060	0.000	1680.70	2297.97
0.003017	975.	1044.	725.	4	0	0	0.00	1538.46	3836.44

CCHV= 0.100 CEHV= 0.300

*SECNO 1.920

3470 ENCROACHMENT STATIONS= 1780.0 3635.0 TYPE= 1 TARGET= 1855.000

Centerline Station at 3349

1.82	2.73	1689.63	0.00	1689.58	1689.92	0.29	5.62	0.07	1689.60
5700.	3603.	2097.	0.	939.	421.	0.	689.	385.	100000.00
1.41	3.84	4.98	0.00	0.080	0.040	0.030	0.000	1686.90	2545.08
0.019419	850.	948.	1050.	4	0	0	0.00	1075.14	3620.21

*SECNO 2.030

3470 ENCROACHMENT STATIONS= 1240.0 3080.0 TYPE= 1 TARGET= 1840.000

Centerline Station at 2546

2.03	6.16	1693.96	0.00	1693.90	1694.03	0.07	4.09	0.02	1691.90
5700.	2933.	1273.	1494.	2160.	335.	1123.	746.	411.	1692.60
1.56	1.36	3.80	1.33	0.100	0.040	0.100	0.000	1687.80	1874.52
0.001670	1050.	1076.	800.	6	0	0	0.00	1188.80	3063.32

*SECNO 2.230

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 900.0 3092.0 TYPE= 1 TARGET= 2192.000

Centerline Station at 2583

2.23	6.93	1695.13	0.00	1695.06	1695.26	0.13	1.21	0.02	1696.00
5700.	1217.	3938.	545.	655.	1201.	714.	820.	439.	1694.00
1.66	1.86	3.28	0.76	0.030	0.035	0.100	0.000	1688.20	1890.50
0.000851	1050.	1052.	1000.	2	0	0	0.00	1160.20	3065.08

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - NONDA

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	1644.00	5500.00	1646.55	0.00	1646.66	61.50	2.64	2094.90	701.33
0.000	0.00	0.00	0.00	1644.00	5600.00	1646.57	0.00	1646.68	61.58	2.66	2118.75	713.65
0.000	0.00	0.00	0.00	1644.00	5700.00	1646.59	0.00	1646.70	61.65	2.68	2142.36	725.93

0.200	1060.00	0.00	0.00	1650.90	5500.00	1654.12	0.00	1654.25	83.61	2.90	1699.75	601.48
0.200	1060.00	0.00	0.00	1650.90	5600.00	1654.15	0.00	1654.28	83.64	2.91	1923.61	612.33
0.200	1060.00	0.00	0.00	1650.90	5700.00	1654.17	0.00	1654.31	83.65	2.93	1947.39	623.22
0.460	1380.00	0.00	0.00	1655.60	5500.00	1660.82	0.00	1660.88	26.14	2.06	3151.00	1075.67
0.460	1380.00	0.00	0.00	1655.60	5600.00	1660.85	0.00	1660.91	26.07	2.07	3195.32	1096.82
0.460	1380.00	0.00	0.00	1655.60	5700.00	1660.88	0.00	1660.94	26.00	2.08	3239.09	1117.83
0.730	1436.00	0.00	0.00	1665.30	5500.00	1668.30	0.00	1668.45	121.81	3.09	1777.10	498.34
0.730	1436.00	0.00	0.00	1665.30	5600.00	1668.32	0.00	1668.47	122.01	3.11	1799.05	506.99
0.730	1436.00	0.00	0.00	1665.30	5700.00	1668.35	0.00	1668.50	122.10	3.13	1821.43	515.84
0.980	1312.00	0.00	0.00	1673.20	5500.00	1676.18	0.00	1676.22	28.56	1.58	3707.81	1029.14
0.980	1312.00	0.00	0.00	1673.20	5600.00	1676.20	0.00	1676.24	28.47	1.59	3759.16	1049.59
0.980	1312.00	0.00	0.00	1673.20	5700.00	1676.22	0.00	1676.25	28.38	1.59	3809.90	1069.87
1.240	1344.00	0.00	0.00	1675.20	5500.00	1678.80	0.00	1678.83	15.62	1.26	4366.88	1391.65
1.240	1344.00	0.00	0.00	1675.20	5600.00	1678.82	0.00	1678.85	15.70	1.27	4408.14	1413.22
1.240	1344.00	0.00	0.00	1675.20	5700.00	1678.84	0.00	1678.87	15.78	1.28	4449.18	1434.78
1.450	1108.00	0.00	0.00	1678.30	5500.00	1681.18	0.00	1681.22	31.98	1.70	3560.28	972.64
1.450	1108.00	0.00	0.00	1678.30	5600.00	1681.21	0.00	1681.25	31.79	1.71	3619.05	993.14
1.450	1108.00	0.00	0.00	1678.30	5700.00	1681.23	0.00	1681.27	31.60	1.71	3678.55	1013.96
1.650	1044.00	0.00	0.00	1680.70	5500.00	1684.13	0.00	1684.19	29.86	2.28	2950.51	1006.54
1.650	1044.00	0.00	0.00	1680.70	5600.00	1684.15	0.00	1684.21	30.01	2.30	2980.63	1022.23
1.650	1044.00	0.00	0.00	1680.70	5700.00	1684.17	0.00	1684.23	30.17	2.32	3010.26	1037.75

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.820	948.00	0.00	0.00	1686.90	5500.00	1689.58	0.00	1689.87	198.69	4.94	1315.42	390.19
1.820	948.00	0.00	0.00	1686.90	5600.00	1689.61	0.00	1689.90	196.96	4.94	1337.93	399.02
1.820	948.00	0.00	0.00	1686.90	5700.00	1689.63	0.00	1689.92	194.19	4.98	1360.10	409.04
2.030	1076.00	0.00	0.00	1687.80	5500.00	1693.90	0.00	1693.97	16.52	3.74	3543.92	1353.15
2.030	1076.00	0.00	0.00	1687.80	5600.00	1693.93	0.00	1694.00	16.59	3.77	3582.59	1375.05
2.030	1076.00	0.00	0.00	1687.80	5700.00	1693.96	0.00	1694.03	16.70	3.80	3617.40	1394.88
2.230	1052.00	0.00	0.00	1688.20	5500.00	1695.06	0.00	1695.19	8.53	3.26	2494.86	1883.04
2.230	1052.00	0.00	0.00	1688.20	5600.00	1695.10	0.00	1695.22	8.51	3.27	2533.20	1919.41
2.230	1052.00	0.00	0.00	1688.20	5700.00	1695.13	0.00	1695.26	8.51	3.28	2569.58	1954.33

LAS VEGAS WASH - NONDA

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	5500.00	1646.55	0.00	0.00	0.00	1102.31	0.00
0.000	5600.00	1646.57	0.02	0.00	0.02	1104.58	0.00
0.000	5700.00	1646.59	0.02	0.00	0.04	1106.93	0.00
0.200	5500.00	1654.12	0.00	7.57	0.00	853.72	1060.00
0.200	5600.00	1654.15	0.03	7.57	0.03	857.42	1060.00
0.200	5700.00	1654.17	0.03	7.58	0.05	861.11	1060.00
0.460	5500.00	1660.82	0.00	6.71	0.00	1535.08	1380.00
0.460	5600.00	1660.85	0.03	6.70	0.03	1541.89	1380.00
0.460	5700.00	1660.88	0.03	6.70	0.06	1548.58	1380.00

0.730	5500.00	1668.30	0.00	7.48	0.00	958.04	1436.00
0.730	5600.00	1668.32	0.02	7.47	0.02	962.74	1436.00
0.730	5700.00	1668.35	0.02	7.47	0.05	967.52	1436.00
0.980	5500.00	1676.18	0.00	7.88	0.00	2478.31	1312.00
0.980	5600.00	1676.20	0.02	7.88	0.02	2495.73	1312.00
0.980	5700.00	1676.22	0.02	7.87	0.04	2512.95	1312.00
1.240	5500.00	1678.80	0.00	2.62	0.00	1964.42	1344.00
1.240	5600.00	1678.82	0.02	2.62	0.02	1965.57	1344.00
1.240	5700.00	1678.84	0.02	2.62	0.04	1966.70	1344.00
1.450	5500.00	1681.18	0.00	2.38	0.00	2591.78	1108.00
1.450	5600.00	1681.21	0.02	2.38	0.02	2618.43	1108.00
1.450	5700.00	1681.23	0.02	2.38	0.05	2645.07	1108.00
1.650	5500.00	1684.13	0.00	2.95	0.00	1529.64	1044.00
1.650	5600.00	1684.15	0.02	2.95	0.02	1534.09	1044.00
1.650	5700.00	1684.17	0.02	2.94	0.04	1538.46	1044.00
1.820	5500.00	1686.58	0.00	5.45	0.00	999.56	948.00
1.820	5600.00	1686.61	0.03	5.46	0.03	1073.06	948.00
1.820	5700.00	1686.63	0.02	5.46	0.05	1075.14	948.00
2.030	5500.00	1693.90	0.00	4.32	0.00	1185.85	1076.00
2.030	5600.00	1693.93	0.03	4.32	0.03	1187.40	1076.00
2.030	5700.00	1693.96	0.03	4.33	0.06	1188.90	1076.00
2.230	5500.00	1695.06	0.00	1.16	0.00	1158.50	1052.00
2.230	5600.00	1695.10	0.03	1.17	0.03	1159.37	1052.00
2.230	5700.00	1695.13	0.03	1.17	0.06	1160.20	1052.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   4-MAY-88 TIME   18:05:55          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 10-YEAR (d/s Reach)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.       2.        0.        0.  0.006200      0.00      0.5       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.070     0.050     0.070     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      3.000  7800.000 14000.000 24000.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     5.100     5.100     5.100  1525.000  4970.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above Advance Wastewater Treatment Plant)
                Centerline Station at 2333
X1      0.000    26.000  2184.000  3356.000  1100.000  1100.000  1172.000     0.000     0.000     0.000
GR   1660.000  1525.000  1656.000  1565.000  1652.000  1815.000  1650.800  2000.000  1649.100  2154.000
GR   1646.500  2161.000  1646.500  2179.000  1651.400  2184.000  1646.600  2219.000  1644.000  2333.000
GR   1644.200  2588.000  1644.900  3218.000  1652.500  3356.000  1645.100  3396.000  1646.800  3454.000
GR   1653.300  3482.000  1647.600  3517.000  1647.200  3776.000  1646.800  4108.000  1648.000  4410.000
GR   1652.000  4900.000  1652.000  4970.000  1650.000  5770.000  1652.000  6725.000  1656.000  7610.000
GR   1657.300  7630.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

NC	0.380	0.080	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	5.100	5.100	5.100	1780.000	4087.000	0.000	0.000	0.000	0.000
		Centerline Station at 2200								
X1	0.200	18.000	2000.000	3245.000	1000.000	1600.000	1060.000	0.000	0.000	0.000
GR	1668.000	1700.000	1657.900	2000.000	1655.300	2266.000	1650.900	2504.000	1651.500	2847.000
GR	1651.400	2969.000	1654.900	3245.000	1657.500	3707.000	1659.100	3965.000	1658.800	4067.000
GR	1660.000	4087.000	1654.000	4230.000	1660.000	4330.000	1659.500	5260.000	1656.000	5860.000
GR	1660.000	6750.000	1660.000	7250.000	1661.800	7290.000	0.000	0.000	0.000	0.000
		Centerline Station at 2803								
X1	0.460	23.000	2338.000	2969.000	1225.000	2800.000	1360.000	0.000	0.000	0.000
GR	1680.000	1550.000	1676.000	1570.000	1672.000	1595.000	1672.000	1880.000	1667.800	2000.000
GR	1663.300	2088.000	1661.500	2167.000	1663.000	2180.000	1658.900	2192.000	1658.900	2204.000
GR	1664.100	2216.000	1664.000	2231.000	1658.700	2338.000	1657.000	2782.000	1655.600	2792.000
GR	1655.500	2813.000	1659.000	2969.000	1659.700	3550.000	1661.800	3850.000	1661.200	4025.000

GR	1657.500	4045.000	1660.000	4075.000	1668.000	4575.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1680.000	5736.000	0.000	0.000	0.000	0.000
		Centerline Station at 2440								
X1	0.730	32.000	2324.000	3575.000	1300.000	2400.000	1436.000	0.000	0.000	0.000
GR	1684.000	1680.000	1680.000	1895.000	1676.000	1975.000	1675.200	2000.000	1672.700	2103.000
GR	1674.300	2119.000	1674.300	2147.000	1673.800	2166.000	1670.200	2249.000	1671.300	2324.000
GR	1665.300	2810.000	1666.300	3275.000	1668.700	3575.000	1669.400	3778.000	1670.800	4365.000
GR	1674.100	4481.000	1677.500	4513.000	1673.600	4576.000	1672.000	4796.000	1672.000	5036.000
GR	1677.300	5736.000	1672.000	6436.000	1672.000	6940.000	1676.000	6970.000	1676.000	7010.000
GR	1672.000	7030.000	1672.000	7390.000	1676.000	7410.000	1676.000	7440.000	1672.000	7730.000
GR	1676.300	8370.000	1680.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.380	0.070	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	5.100	5.100	0.000	2107.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2540								
X1	0.980	20.000	2331.000	3773.000	1300.000	2320.000	1312.000	0.000	0.000	0.000
GR	1688.000	1510.000	1684.000	1610.000	1680.000	1780.000	1677.600	2000.000	1675.500	2079.000
GR	1678.300	2107.000	1678.300	2134.000	1677.300	2228.000	1676.500	2331.000	1678.700	2349.000
GR	1673.200	3058.000	1674.600	3773.000	1674.800	4553.000	1676.500	4631.000	1676.000	4691.000
GR	1675.000	4891.000	1676.000	5100.000	1680.000	7300.000	1681.500	7950.000	1684.000	8585.000
ET	0.300	5.100	5.100	5.100	1900.000	7740.000	0.000	0.000	0.000	0.000
		Centerline Station at 2918								
X1	1.240	21.000	2000.000	4140.000	1100.000	900.000	1344.000	0.000	0.000	0.000
GR	1692.000	1440.000	1688.000	1455.000	1684.000	1545.000	1684.000	1770.000	1688.000	1820.000
GR	1688.000	1900.000	1687.300	2000.000	1681.200	2167.000	1676.200	2265.000	1675.200	2918.000
GR	1676.300	3294.000	1677.100	3639.000	1678.000	3909.000	1677.700	4140.000	1680.000	4220.000
GR	1681.000	4250.000	1680.000	4280.000	1679.000	5480.000	1680.000	6030.000	1684.000	7180.000
GR	1686.500	7740.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 3015								
X1	1.450	16.000	2442.000	3875.000	1300.000	900.000	1108.000	0.000	0.000	0.000
GR	1689.700	2096.000	1683.200	2132.000	1680.900	2215.000	1679.600	2442.000	1678.300	2832.000
GR	1679.500	3527.000	1679.300	3716.000	1681.300	3875.000	1681.400	4015.000	1680.700	4060.000
GR	1680.300	4075.000	1681.400	5175.000	1684.000	5975.000	1684.000	7175.000	1685.500	7540.000
GR	1688.300	8380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.080	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	5.100	0.000	0.000	1700.000	4014.000	0.000	0.000	0.000	0.000
		Centerline Station at 3173								
X1	1.550	25.000	3159.000	3203.000	975.000	725.000	1044.000	0.000	0.000	0.000
GR	1720.300	1700.000	1716.000	1780.000	1712.000	1850.000	1708.000	1910.000	1692.600	2000.000
GR	1681.200	2403.000	1681.900	2904.000	1682.900	3093.000	1681.300	3118.000	1683.300	3159.000
GR	1680.700	3173.000	1683.100	3203.000	1682.500	3252.000	1680.900	3278.000	1683.100	3354.000
GR	1682.300	3443.000	1681.500	3539.000	1682.700	3591.000	1681.400	3625.000	1683.300	3670.000
GR	1685.100	4014.000	1685.000	4183.000	1684.400	5383.000	1688.000	6920.000	1692.000	8220.000

NC	0.100	0.080	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1780.000	3635.000	0.000	0.000	0.000	0.000

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Centerline Station at 3349

X1	1.320	40.000	3175.000	3635.000	850.000	1050.000	948.000	0.000	0.000	0.000
GR	1716.000	1780.000	1712.000	1850.000	1708.000	1910.000	1706.200	2000.000	1700.600	2084.000
GR	1695.300	2155.000	1696.400	2197.000	1695.100	2243.000	1692.500	2272.000	1690.900	2307.000
GR	1691.900	2378.000	1692.300	2411.000	1691.400	2448.000	1690.300	2479.000	1686.900	2812.000
GR	1687.400	2987.000	1689.600	3112.000	1689.600	3175.000	1689.500	3217.000	1689.000	3259.000
GR	1687.700	3323.000	1687.100	3349.000	1689.000	3369.000	1687.600	3375.000	1687.600	3392.000
GR	1689.300	3402.000	1689.000	3429.000	1689.000	3437.000	1689.000	3493.000	1689.200	3510.000
GR	1689.200	3532.000	1689.200	3543.000	1688.300	3562.000	1688.200	3588.000	1687.800	3615.000
GR	1694.300	3635.000	1692.000	3655.000	1692.000	4865.000	1696.000	6450.000	1700.000	7530.000
NC	0.100	0.100	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1240.000	3080.000	0.000	0.000	0.000	0.000

Centerline Station at 2546

X1	2.030	45.000	2601.000	2684.000	1050.000	800.000	1076.000	0.000	0.000	0.000
GR	1708.300	1240.000	1704.000	1290.000	1700.000	1300.000	1696.000	1330.000	1696.000	1685.000
GR	1700.000	1700.000	1696.000	1785.000	1692.000	1960.000	1691.900	2000.000	1690.100	2040.000
GR	1689.700	2080.000	1689.700	2212.000	1689.700	2287.000	1691.600	2440.000	1692.400	2487.000
GR	1691.500	2563.000	1691.900	2601.000	1691.200	2617.000	1690.900	2631.000	1687.800	2635.000
GR	1687.300	2656.000	1689.700	2668.000	1691.600	2679.000	1692.600	2684.000	1692.300	2705.000
GR	1692.300	2739.000	1692.200	2766.000	1689.900	2776.000	1689.900	2823.000	1690.100	2850.000
GR	1692.200	2874.000	1691.400	2924.000	1690.800	2957.000	1690.100	2980.000	1689.200	2998.000
GR	1690.500	3015.000	1689.700	3026.000	1689.700	3047.000	1698.300	3080.000	1696.000	3105.000
GR	1695.500	4495.000	1696.000	4740.000	1703.000	6550.000	1700.000	7450.000	1704.000	7570.000
NC	0.030	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	900.000	3092.000	0.000	0.000	0.000	0.000

Centerline Station at 2583

X1	2.230	38.000	2456.000	2740.000	1050.000	1000.000	1052.000	0.000	0.000	0.000
GR	1716.000	900.000	1712.000	1110.000	1708.000	1250.000	1704.000	1450.000	1700.000	1605.000
GR	1696.100	1885.000	1692.000	1910.000	1692.000	1935.000	1693.700	2000.000	1694.400	2187.000
GR	1694.500	2353.000	1694.200	2420.000	1692.900	2429.000	1696.000	2456.000	1692.600	2482.000
GR	1692.600	2494.000	1688.200	2506.000	1689.300	2552.000	1689.800	2560.000	1689.700	2606.000
GR	1689.700	2628.000	1690.300	2646.000	1692.100	2660.000	1691.200	2689.000	1691.500	2701.000
GR	1694.000	2740.000	1692.300	3010.000	1690.200	3022.000	1692.700	3056.000	1702.300	3052.000
GR	1700.000	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.000	4060.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	RANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	3.01	1647.01	0.00	0.00	1647.15	0.14	0.00	0.00	1651.40	
7800.	10.	7608.	182.	10.	2524.	94.	0.	0.	1652.50	

0.00	1.04	3.01	1.94	0.070	0.070	0.050	0.000	1644.00	2159.64
0.006197	1130.	1172.	1100.	0	0	7	0.00	1352.06	4159.93

*SECNO 0.230

3470 ENCROACHMENT STATIONS= 1700.0 4087.0 TYPE= 1 TARGET= 2387.000

Centerline Station at 2200

0.20	3.79	1654.69	0.00	0.00	1654.85	0.16	7.70	0.01	1657.90
7800.	0.	7800.	0.	0.	2409.	0.	62.	30.	1654.90
0.19	0.00	3.24	0.00	0.080	0.080	0.070	0.000	1650.90	2298.94
0.008542	1000.	1060.	1600.	4	0	0	0.00	929.58	3228.52

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	5.82	1661.42	0.00	0.00	1661.48	0.06	6.62	0.01	1658.70
7800.	154.	5411.	2235.	122.	2402.	1605.	151.	89.	1659.00
0.31	1.26	2.25	1.39	0.080	0.080	0.080	0.000	1655.60	2184.62
0.002477	1225.	1380.	2800.	4	0	0	0.00	1741.01	4163.78

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1681.0 5736.0 TYPE= 1 TARGET= 4056.000

Centerline Station at 2440

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST
0.73	3.48	1668.78	0.00	0.00	1668.96	0.19	7.44	0.04	1671.30
7800.	0.	7800.	0.	0.	2258.	1.	314.	146.	1668.70
0.44	0.00	3.45	0.24	0.080	0.080	0.080	0.000	1665.30	2528.25
0.012398	1300.	1436.	2400.	4	0	0	0.00	1069.51	3597.76

*SECNO 0.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2107.0 8585.0 TYPE= 1 TARGET= -2107.000

Centerline Station at 2540

0.96	3.40	1676.60	0.00	0.00	1676.64	0.04	7.67	0.01	1676.50
7800.	0.	4573.	3227.	1.	2690.	2146.	446.	225.	1674.60
0.70	0.14	1.70	1.50	0.080	0.080	0.070	0.000	1673.20	2316.57
0.002717	1300.	1312.	2320.	3	0	0	0.00	2833.83	5436.63

*SECNO 1.240

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1900.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	4.06	1679.26	0.00	0.00	1679.29	0.03	2.65	0.00	1687.30
7800.	0.	7755.	45.	0.	5226.	101.	591.	295.	1677.70
0.94	0.00	1.48	0.44	0.080	0.080	0.070	0.000	1675.20	2205.03
0.001697	1100.	1344.	900.	4	0	0	0.00	2444.04	5622.94

*SECNO 1.450

Centerline Station at 3015

1.45	3.33	1681.63	0.00	0.00	1681.68	0.05	2.38	0.00	1679.60

7500.	590.	6522.	688.	323.	3577.	950.	719.	361.	1681.30
1.12	1.21	1.82	0.93	0.080	0.080	0.070	0.000	1678.30	2188.62
0.002845	1300.	1108.	900.	3	0	0	0.00	3057.49	5246.10

*SECNO 1.650

3470 ENCROACHMENT STATIONS= 1700.0 4014.0 TYPE= 1 TARGET= 2314.000

Centerline Station at 3173

1.65	3.83	1684.53	0.00	0.00	1684.61	0.08	2.92	0.01	1683.30
7800.	4623.	308.	2869.	2239.	114.	1215.	810.	409.	1683.10
1.24	2.06	2.70	2.36	0.080	0.060	0.060	0.000	1680.70	2285.46
0.003372	975.	1044.	725.	3	0	0	0.00	1618.66	3904.12

CCHV= 0.100 CEHV= 0.300

*SECNO 1.820

3470 ENCROACHMENT STATIONS= 1791.0 3635.0 TYPE= 1 TARGET= 1855.000

Centerline Station at 3349

1.82	3.13	1690.03	0.00	0.00	1690.36	0.33	5.68	0.08	1689.60
7800.	4441.	3359.	0.	1202.	601.	0.	866.	437.	100000.00
1.29	3.70	5.59	0.00	0.090	0.040	0.080	0.000	1686.90	2505.52
0.015263	850.	948.	1050.	3	0	0	0.00	1115.85	3621.37

*SECNO 2.030

3470 ENCROACHMENT STATIONS= 1240.0 3080.0 TYPE= 1 TARGET= 1840.000

Centerline Station at 2546

2.03	6.71	1694.51	0.00	0.00	1694.61	0.09	4.23	0.02	1691.90
7800.	4048.	1677.	2075.	2573.	381.	1336.	936.	465.	1692.60
1.42	1.57	4.40	1.55	0.100	0.040	0.100	0.000	1687.80	1850.04
0.001881	1050.	1076.	800.	6	0	0	0.00	1215.43	3065.47

*SECNO 2.230

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 901.0 3092.0 TYPE= 1 TARGET= 2192.000

Centerline Station at 2583

2.23	7.53	1695.73	0.00	0.00	1695.87	0.14	1.25	0.01	1696.00
7800.	2209.	4796.	795.	994.	1369.	911.	1026.	493.	1694.00
1.52	2.22	3.50	0.37	0.030	0.035	0.110	0.000	1688.20	1886.73
0.000832	1050.	1052.	1000.	2	0	0	0.00	1176.09	3067.34

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - 50-YEAR (d/s reach)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.006200	0.00	0.5	0.	0.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	3.86	1647.86	0.00	1647.01	1648.06	0.19	0.00	0.00	1651.40
14000.	55.	12486.	1459.	28.	3426.	684.	0.	0.	1652.50
0.00	1.95	3.64	2.13	0.070	0.070	0.050	0.000	1644.00	2157.33
0.006185	1100.	1172.	1100.	0	0	6	0.00	2023.17	4375.90

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1700.0 4087.0 TYPE= 1 TARGET= 2387.000
Centerline Station at 2200

0.20	4.92	1655.82	0.00	1654.69	1656.06	0.24	7.99	0.02	1657.90
14000.	0.	13921.	79.	0.	3519.	76.	99.	46.	1654.90
0.09	0.00	3.96	1.04	0.080	0.080	0.080	0.000	1650.90	2212.47
0.008842	1000.	1060.	1600.	4	0	0	0.00	1196.58	3409.05

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	7.04	1662.64	0.00	1661.42	1662.72	0.08	6.64	0.02	1658.70
14000.	383.	8271.	5345.	273.	3173.	3083.	310.	121.	1659.00
0.28	1.41	2.61	1.73	0.080	0.080	0.080	0.000	1655.60	2116.82
0.002286	1225.	1380.	2800.	4	0	0	0.00	2073.50	4240.21

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1680.0 5736.0 TYPE= 1 TARGET= 4056.000
Centerline Station at 2440

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

0.73	4.43	1669.73	0.00	1668.78	1669.99	0.27	7.21	0.06	1671.30
14000.	0.	13765.	235.	0.	3297.	163.	510.	197.	1668.70
0.39	0.00	4.18	1.44	0.080	0.080	0.080	0.000	1665.30	2450.77

0.012037	1300.	1436.	2400.	3	0	0	0.00	1467.67	3918.44

*SECNO 0.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2107.0 8585.0 TYPE= 1 TARGET= -2107.000

Centerline Station at 2540

0.98	4.27	1677.47	0.00	1676.60	1677.52	0.05	7.51	0.02	1676.50
14000.	38.	7185.	6777.	60.	3731.	3775.	722.	301.	1674.60
2.62	2.64	1.93	1.80	0.080	0.080	0.070	0.000	1673.20	2212.06
0.002564	1300.	1312.	2320.	4	0	0	0.00	3527.55	5908.28

*SECNO 1.240

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1901.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	4.95	1680.15	0.00	1679.26	1680.20	0.05	2.69	0.00	1687.30
14000.	0.	13104.	896.	0.	6950.	1239.	939.	393.	1677.70
0.81	0.00	1.89	0.72	0.080	0.080	0.070	0.000	1675.20	2187.65
0.001896	1100.	1344.	900.	3	0	0	0.00	3833.26	6072.11

*SECNO 1.450

Centerline Station at 3015

1.45	4.19	1682.49	0.00	1681.63	1682.55	0.06	2.35	0.00	1679.60
14000.	847.	10825.	3128.	555.	4814.	2243.	1133.	477.	1681.30
0.97	1.53	2.08	1.39	0.080	0.080	0.070	0.000	1678.30	2157.47
0.002498	1300.	1108.	900.	3	0	0	0.00	3354.22	5511.69

*SECNO 1.650

Centerline Station at 3173

1.65	4.57	1685.27	0.00	1684.53	1685.36	0.09	2.80	0.01	1683.30
14000.	7416.	459.	6084.	2905.	147.	2685.	1272.	543.	1683.10
1.08	2.55	3.40	2.27	0.080	0.060	0.060	0.000	1680.70	2258.93
0.003797	975.	1044.	725.	2	0	0	0.00	3497.81	5756.74

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TCPWID	ENDST

CCHV= 0.100 CEHV= 0.300

*SECNO 1.820

3470 ENCROACHMENT STATIONS= 1780.0 3635.0 TYPE= 1 TARGET= 1855.000

Centerline Station at 3349

1.82	3.94	1690.84	0.00	1690.03	1691.34	0.50	5.86	0.12	1689.60
14000.	7232.	6768.	0.	1769.	965.	0.	1362.	595.	100000.00
1.12	4.09	7.01	0.00	0.080	0.040	0.080	0.000	1686.90	2463.68
0.012855	850.	948.	1050.	3	0	0	0.00	1160.01	3623.70

*SECNO 2.030

3470 ENCROACHMENT STATIONS= 1241.0 3080.0 TYPE= 1 TARGET= 1840.000

Centerline Station at 2546

2.03	8.04	1695.84	0.00	1694.51	1695.99	0.15	4.62	0.03	1691.90
14000.	7387.	2812.	3801.	3606.	491.	1844.	1462.	623.	1692.60
1.22	2.05	5.73	2.16	0.100	0.040	0.100	0.000	1687.80	1792.09
0.002272	1050.	1076.	800.	6	0	0	0.00	1278.46	3070.55

*SECNO 2.230

3470 ENCROACHMENT STATIONS= 903.0 3092.0 TYPE= 1 TARGET= 2192.000
Centerline Station at 2583

2.23	8.91	1697.11	0.30	1695.73	1697.30	0.18	1.29	0.01	1696.00
14000.	5455.	7057.	1483.	1830.	1764.	1370.	1592.	654.	1694.00
1.31	2.98	4.00	1.39	0.030	0.035	0.100	0.000	1688.20	1807.04
0.000783	1050.	1052.	1000.	3	0	0	0.00	1265.51	3072.55

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - 100-YEAR (d/s reach)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.006200	0.00	0.5	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	4.77	1648.77	0.30	1647.01	1649.03	0.25	0.00	0.00	1651.40
24000.	134.	18672.	5194.	50.	4400.	1607.	0.	0.	1652.50
0.00	2.65	4.24	3.23	0.070	0.070	0.050	0.000	1644.00	2154.88
0.006182	1100.	1172.	1100.	0	0	5	0.00	2192.67	4504.55

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1703.0 4087.0 TYPE= 1 TARGET= 2387.000
Centerline Station at 2200

0.20	6.23	1657.13	0.30	1654.69	1657.46	0.33	8.41	0.02	1657.90
24000.	0.	23153.	847.	0.	4958.	443.	152.	55.	1654.90

0.17	0.91	4.67	1.91	0.080	0.080	0.060	0.000	1650.90	2078.59
0.009179	1000.	1060.	1600.	4	0	0	0.00	1562.99	3641.58

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	8.50	1664.10	0.00	1661.42	1664.20	0.11	6.72	0.02	1658.70
24000.	972.	12255.	10773.	591.	4092.	4999.	479.	144.	1659.00
0.25	1.65	3.00	2.16	0.080	0.080	0.080	0.000	1655.60	2072.38
0.002151	1225.	1380.	2800.	5	0	0	0.00	2258.61	4331.17

*SECNO 0.730

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1680.0 5736.0 TYPE= 1 TARGET= 4056.000

Centerline Station at 2440

0.73	5.60	1670.90	0.00	1668.78	1671.23	0.33	6.96	0.07	1671.30
24000.	21.	22098.	1881.	22.	4661.	845.	793.	238.	1668.70
0.36	0.96	4.74	2.23	0.080	0.080	0.060	0.000	1665.30	2232.87
0.010891	1300.	1436.	2400.	3	0	0	0.00	2075.88	4368.50

*SECNO 0.980

3265 DIVIDED FLOW

Centerline Station at 2540

0.98	5.25	1678.45	0.00	1676.60	1678.52	0.07	7.26	0.03	1676.50
24000.	519.	10826.	12655.	451.	5043.	6129.	1132.	377.	1674.60
0.57	1.15	2.15	2.05	0.080	0.080	0.070	0.000	1673.20	1922.22
0.002436	1300.	1312.	2320.	4	0	0	0.00	4489.57	6446.67

*SECNO 1.240

3470 ENCROACHMENT STATIONS= 1900.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	5.89	1681.09	0.00	1679.26	1681.16	0.07	2.64	0.00	1687.30
24000.	0.	19965.	4035.	0.	8790.	3155.	1447.	485.	1677.70
0.73	0.00	2.27	1.28	0.080	0.080	0.070	0.000	1675.20	2169.26
0.002037	1100.	1344.	900.	3	0	0	0.00	4172.56	6341.82

*SECNO 1.450

Centerline Station at 3015

1.45	5.16	1683.46	0.00	1681.63	1683.54	0.08	2.38	0.00	1679.60
24000.	1596.	15162.	7242.	845.	6195.	3968.	1724.	576.	1681.30
0.86	1.89	2.45	1.82	0.080	0.080	0.070	0.000	1678.30	2130.57
0.002465	1300.	1108.	900.	2	0	0	0.00	3677.70	5808.27

*SECNO 1.650

Centerline Station at 3173

1.65	5.41	1686.11	0.00	1684.53	1686.23	0.12	2.67	0.01	1683.30
24000.	10611.	716.	12673.	3671.	184.	4975.	1925.	647.	1683.10
0.95	2.89	3.89	2.55	0.080	0.060	0.060	0.000	1680.70	2229.31
0.003705	975.	1044.	725.	2	0	0	0.00	3885.22	6114.52

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 1.100 CEHV= 0.300
*SECNO 1.820

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1781.0 3635.0 TYPE= 1 TARGET= 1855.000
Centerline Station at 3349

1.82	4.74	1691.64	0.00	1690.03	1692.48	0.83	6.04	0.21	1689.60
24000.	11958.	12042.	0.	2414.	1326.	0.	2061.	705.	100000.00
0.99	4.95	9.08	0.00	0.080	0.040	0.080	0.000	1686.50	2290.70
0.014235	850.	948.	1050.	3	0	0	0.00	1292.91	3625.99

*SECNO 2.330

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1241.0 3080.0 TYPE= 1 TARGET= 1840.000
Centerline Station at 2646

2.03	9.65	1697.45	0.00	1694.51	1697.67	0.22	5.13	0.06	1691.90
24000.	13158.	4430.	6412.	5468.	625.	2472.	2203.	740.	1692.60
1.08	2.41	7.09	2.59	0.100	0.040	0.100	0.000	1687.80	1319.14
0.002527	1050.	1076.	800.	6	0	0	0.00	1693.91	3076.73

*SECNO 2.230

3470 ENCROACHMENT STATIONS= 901.0 3092.0 TYPE= 1 TARGET= 2192.000
Centerline Station at 2583

2.23	10.56	1698.76	0.00	1695.73	1699.00	0.25	1.33	0.01	1696.00
24000.	11135.	10319.	2546.	2992.	2230.	1921.	2390.	777.	1694.00
1.15	3.72	4.63	1.33	0.030	0.035	0.100	0.000	1688.20	1691.98
0.000765	1050.	1052.	1000.	3	0	0	0.00	1386.74	3078.71

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	1644.00	7800.00	1647.01	0.00	1647.15	61.87	3.01	2627.27	991.65
0.000	0.00	0.00	0.00	1644.00	14000.00	1647.86	0.00	1648.06	61.85	3.64	4138.28	1780.21
0.000	0.00	0.00	0.00	1644.00	24000.00	1648.77	0.00	1649.03	61.82	4.24	6057.65	3052.56
0.200	1060.00	0.00	0.00	1650.90	7800.00	1654.69	0.00	1654.85	85.42	3.24	2408.53	843.96
0.200	1060.00	0.00	0.00	1650.90	14000.00	1655.82	0.00	1656.06	88.42	3.96	3594.91	1488.87
0.200	1060.00	0.00	0.00	1650.90	24000.00	1657.13	0.00	1657.46	91.79	4.67	5400.47	2505.01
0.460	1380.00	0.00	0.00	1655.60	7800.00	1661.42	0.00	1661.48	24.77	2.25	4129.24	1567.28
0.460	1380.00	0.00	0.00	1655.60	14000.00	1662.64	0.00	1662.72	22.86	2.61	6528.55	2928.15
0.460	1380.00	0.00	0.00	1655.60	24000.00	1664.10	0.00	1664.20	21.51	3.00	9681.06	5175.02
0.730	1436.00	0.00	0.00	1665.30	7800.00	1668.78	0.00	1668.96	123.98	3.45	2259.38	700.50
0.730	1436.00	0.00	0.00	1665.30	14000.00	1669.73	0.00	1669.99	120.37	4.18	3459.36	1276.03
0.730	1436.00	0.00	0.00	1665.30	24000.00	1670.90	0.00	1671.23	108.91	4.74	5528.15	2299.75
0.980	1312.00	0.00	0.00	1673.20	7800.00	1676.60	0.00	1676.64	27.17	1.70	4836.34	1496.49
0.980	1312.00	0.00	0.00	1673.20	14000.00	1677.47	0.00	1677.52	25.64	1.93	7565.87	2765.08
0.980	1312.00	0.00	0.00	1673.20	24000.00	1678.45	0.00	1678.52	24.36	2.15	11622.53	4862.76
1.240	1344.00	0.00	0.00	1675.20	7800.00	1679.26	0.00	1679.29	16.97	1.48	5327.73	1893.65
1.240	1344.00	0.00	0.00	1675.20	14000.00	1680.15	0.00	1680.20	18.96	1.89	8188.39	3215.35
1.240	1344.00	0.00	0.00	1675.20	24000.00	1691.09	0.00	1681.16	20.37	2.27	11945.70	5317.95
1.450	1108.00	0.00	0.00	1678.30	7800.00	1681.63	0.00	1681.68	28.45	1.82	4849.94	1462.24
1.450	1108.00	0.00	0.00	1678.30	14000.00	1682.49	0.00	1682.55	24.98	2.08	7617.11	2801.18
1.450	1108.00	0.00	0.00	1678.30	24000.00	1683.46	0.00	1683.54	24.65	2.45	11008.81	4834.20
1.650	1044.00	0.00	0.00	1680.70	7800.00	1684.53	0.00	1684.61	33.72	2.70	3569.25	1343.27
1.650	1044.00	0.00	0.00	1680.70	14000.00	1685.27	0.00	1685.36	37.97	3.40	5736.67	2272.06
1.650	1044.00	0.00	0.00	1680.70	24000.00	1686.11	0.00	1686.23	37.05	3.89	8830.21	3942.83

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.820	948.00	0.00	0.00	1686.90	7800.00	1690.03	0.00	1690.36	152.63	5.59	1802.59	631.36
1.820	948.00	0.00	0.00	1686.90	14000.00	1690.84	0.00	1691.34	128.55	7.01	2734.37	1234.80
1.820	948.00	0.00	0.00	1686.90	24000.00	1691.64	0.00	1692.48	142.35	9.08	3739.85	2011.54
2.030	1076.00	0.00	0.00	1687.80	7800.00	1694.51	0.00	1694.61	18.81	4.40	4290.06	1798.60
2.030	1076.00	0.00	0.00	1687.80	14000.00	1695.84	0.00	1695.99	22.72	5.73	5941.75	2937.36
2.030	1076.00	0.00	0.00	1687.80	24000.00	1697.45	0.00	1697.67	25.27	7.09	8564.96	4774.00
2.230	1052.00	0.00	0.00	1688.20	7800.00	1695.73	0.00	1695.87	8.32	3.50	3274.15	2703.46
2.230	1052.00	0.00	0.00	1688.20	14000.00	1697.11	0.00	1697.30	7.83	4.00	4963.63	5004.09
2.230	1052.00	0.00	0.00	1688.20	24000.00	1698.76	0.00	1699.00	7.65	4.63	7143.50	8677.34

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LAS VEGAS WASH - 10-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	7800.00	1647.01	0.00	0.00	0.00	1352.06	0.00
0.000	14000.00	1647.86	0.86	0.00	0.86	2023.17	0.00

0.030	24000.00	1648.77	0.91	0.00	1.77	2192.67	0.00
0.230	7800.00	1654.69	0.00	7.68	0.00	929.58	1060.00
0.230	14000.00	1655.82	1.13	7.96	1.13	1196.58	1060.00
0.230	24000.00	1657.13	1.31	8.36	2.44	1562.99	1060.00
0.460	7800.00	1661.42	0.00	6.73	0.00	1741.01	1380.00
0.460	14000.00	1662.64	1.22	6.82	1.22	2073.50	1380.00
0.460	24000.00	1664.10	1.46	6.97	2.68	2258.61	1380.00
0.730	7800.00	1668.78	0.00	7.36	0.00	1069.51	1436.00
0.730	14000.00	1669.73	0.95	7.08	0.95	1467.67	1436.00
0.730	24000.00	1670.90	1.18	6.80	2.12	2075.88	1436.00
0.980	7800.00	1676.60	0.00	7.83	0.00	2833.83	1312.00
0.980	14000.00	1677.47	0.87	7.74	0.87	3527.55	1312.00
0.980	24000.00	1678.45	0.98	7.55	1.85	4489.97	1312.00
1.240	7800.00	1679.26	0.00	2.66	0.00	2444.04	1344.00
1.240	14000.00	1680.15	0.89	2.68	0.89	3833.26	1344.00
1.240	24000.00	1681.09	0.94	2.64	1.83	4172.56	1344.00
1.450	7800.00	1681.63	0.00	2.37	0.00	3057.49	1108.00
1.450	14000.00	1682.49	0.86	2.34	0.86	3354.22	1108.00
1.450	24000.00	1683.46	0.97	2.39	1.83	3677.70	1108.00
1.650	7800.00	1684.53	0.00	2.90	0.00	1618.66	1044.00
1.650	14000.00	1685.27	0.74	2.77	0.74	3497.81	1044.00
1.650	24000.00	1686.11	0.84	2.65	1.58	3885.22	1044.00
1.820	7800.00	1690.03	0.00	5.50	0.00	1115.85	948.00
1.820	14000.00	1690.84	0.81	5.57	0.81	1160.01	948.00
1.820	24000.00	1691.64	0.81	5.54	1.61	1292.91	948.00
2.030	7800.00	1694.51	0.00	4.48	0.00	1215.43	1076.00
2.030	14000.00	1695.84	1.32	5.00	1.32	1278.46	1076.00
2.030	24000.00	1697.45	1.61	5.80	2.93	1693.81	1076.00
2.230	7800.00	1695.73	0.00	1.22	0.00	1176.09	1052.00
2.230	14000.00	1697.11	1.38	1.28	1.33	1265.51	1052.00
2.230	24000.00	1698.76	1.64	1.31	3.02	1386.74	1052.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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     4
  0.15  FULL FLOW
  0.94  CL3689 FULL FLOW X-SECTION
  1.04  CL2831 MAIN BRANCH FLOWS FROM BHY X1.34
  1.17  CL2732 MAIN BRANCH FLOWS
T1      Clark County Regional Flood Control District/Corps of Engineers
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      LVWDCJML.DAT              25-YR Flood Analysis - July 1987
J1            2                      -1                                1597
J2     1              -1
J3   150
NC  .060     .060     .080       .1       .3
ST      4    5400    10000    18500    53000
X1   0.15      12     9360    10970
GR   1604    8150     1600     9360     1596     8840     1596     8930     1592     9140
GR   1592    9650   1592.5    10000     1596    10970     1600    11280     1600    11700
GR   1604   12980     1608    12210
X1   0.94      14     3524     3961     3200     2800     4150
X4      1    1620     5000
GR   1624       0     1620      530     1616     1100     1616     2560     1619     3445
GR1621.2    3524   1619.0     3689   1619.5     3769   1622.3     3877   1619.0     3921
GR1622.6    3951   1621.8     3999   1620.7     4046     1624     6000
NC  .060     .060     .070       .1       .3
ST      4     734     1096     1253     2885
X1   1.04      20     2440     2888      580      515      540
X4      1    1624     3700
GR   1632    1530     1628     1860     1628     1860     1628     1860     1628     1860
GR1627.8    2030   1626.5     2117   1626.9     2295   1624.0     2440   1623.6     2499
GR1623.8    2612   1623.5     2737   1622.2     2831   1623.8     2888   1623.8     2981
GR1623.8    3034   1623.5     3093     1624     3278     1628     4180   1630.0     4420
X1   1.17      22     2536     2797      740      710      720
GR   1636    1300     1636     1300     1636     1300     1636     1300     1636     1300
GR1630.8    2000   1632.1     2047   1630.1     2109   1629.3     2174   1629.8     2284
GR1627.7    2326   1630.1     2360   1630.3     2460   1631.5     2536   1628.6     2662
GR1628.0    2732   1630.4     2797   1627.8     2947   1630.4     3037     1630     3500
GR   1632    3800     1633     3859
EJ
T1      Clark County Regional Flood Control District/Corps of Engineers
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      LVWDCJML.DAT              50-YR Flood Analysis - July 1987
J1            3                      -1                                1597
J2     2              -1
T1      Clark County Regional Flood Control District/Corps of Engineers
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      LVWDCJML.DAT              100-YR Flood Analysis - July 1987
J1            4                      -1                                1597
J2     3              -1
T1      Clark County Regional Flood Control District/Corps of Engineers
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      LVWDCJML.DAT              500-YR Flood Analysis - July 1987
J1            5                      -1                                1597
J2    15              -1


ER
EOF..
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Sec 0.15 - 1.17

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C        4
C   0.15  FULL FLOW
C   0.94  CL3689 FULL FLOW X-SECTION
C   1.04  CL2831 MAIN BRANCH FLOWS FROM BHY X1.34
C   1.17  CL2732 MAIN BRANCH FLOWS
T1        Clark County Regional Flood Control District/Corps of Engineers
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JML_NONDAM.DAT    Nondamaging Flow Analysis - February 1988
J1              2                -1                                  1597
J2     1                -1
J3   150
NC .060     .060     .080      .1       .3
QT     3   48000    50000    52000
X1  0.15      12     8360    10970
X3    10
GR  1604     8150     1600     8360     1596     8840     1596     8930     1592     9140
GR  1592     9650   1592.5    10000     1596    10970     1600    11280     1600    11700
GR  1604    12080     1608    12210
QT     3   18400    20000    22000
X1  0.94      14     3524     3961     3200     2800     4150
X3    10
X4     1     1620     5000
GR  1624        0     1620      530     1616     1100     1616     2560     1619     3445
GR1621.2     3524   1619.0     3689   1619.5     3769   1622.0     3877   1619.0     3921
GR1622.6     3961   1621.8     3999   1620.7     4046     1624     6000
NC .060     .060     .070      .1       .3
QT     3      700      800      900
X1  1.04      20     2440     2888      580      515      540
X3    10
X4     1     1624     3700
GR  1632     1530     1628     1860     1628     1860     1628     1860     1628     1860
GR1627.8     2000   1626.5     2117   1626.9     2295   1624.0     2440   1623.6     2499
GR1623.8     2602   1623.5     2737   1622.2     2831   1623.8     2888   1623.8     2981
GR1623.8     3034   1623.5     3093     1624     3278     1628     4180   1630.0     4420
QT     3     1300     1400     1500
X1  1.17      22     2536     2797      740      710      720
X3    10
GR  1636     1300     1636     1300     1636     1300     1636     1300     1636     1300
GR1630.8     2000   1632.1     2047   1630.1     2105   1629.3     2174   1629.8     2284
GR1627.7     2326   1630.1     2360   1630.3     2460   1631.5     2536   1628.6     2662
GR1628.0     2732   1630.4     2797   1627.8     2947   1630.4     3037     1630     3500
GR  1632     3800     1633     3850
EJ
T1        Clark County Regional Flood Control District/Corps of Engineers
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JML_NONDAM.DAT Nondamaging Flow Analysis - February 1988
J1              3                -1                                  1597
J2     2                -1
T1        Clark County Regional Flood Control District/Corps of Engineers
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JML_NONDAM.DAT    Nondamaging Flow Analysis - February 1988
J1              4                -1                                  1597
J2    15                -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  13-FEB-88 TIME   20:14:48          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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Sec 0.15 - 1.17

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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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1
  13-FEB-88     20:14:49                                                    PAGE     1
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  ************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ************************************************

C
T1       Clark County Regional Flood Control District/Corps of Engineers
T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3       JML_NONDAM.DAT     Nondamaging Flow Analysis - February 1988

J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.         2.         0.         0.  -1.000000       0.00       0.0        0.   1597.000      0.000
J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
       1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3   VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC       0.060      0.060      0.080      0.100      0.300      0.000      0.000      0.000      0.000      0.000
QT       3.000  48000.000  50000.000  52000.000      0.000      0.000      0.000      0.000      0.000      0.000
           FULL FLOW
X1       0.150     12.000   8360.000  10970.000      0.000      0.000      0.000      0.000      0.000      0.000
X3      10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    1604.000   8150.000   1600.000   8360.000   1596.000   8840.000   1596.000   8930.000   1592.000   9140.000
GR    1592.000   9650.000   1592.500  10000.000   1596.000  10970.000   1600.000  11280.000   1600.000  11700.000
GR    1604.000  12080.000   1608.000  12210.000      0.000      0.000      0.000      0.000      0.000      0.000

QT       3.000  18400.000  20000.000  22000.000      0.000      0.000      0.000      0.000      0.000      0.000
           CL3689 FULL FLOW X-SECTION
X1       0.940     14.000   3524.000   3961.000   3200.000   2800.000   4150.000      0.000      0.000      0.000
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X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1620.000	5000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1624.000	0.000	1620.000	530.000	1616.000	1100.000	1615.000	2560.000	1619.000	3445.000
GR	1621.200	3524.000	1619.000	3689.000	1619.500	3769.000	1622.000	3877.000	1619.000	3921.000
GR	1622.500	3961.000	1621.800	3999.000	1620.700	4046.000	1624.000	6000.000	0.000	0.000
NC	0.360	0.060	0.070	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	3.000	700.000	800.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000

CL2831 MAIN BRANCH FLOWS FROM PHY XI.34

X1	1.040	20.000	2440.000	2888.000	580.000	515.000	540.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1624.000	3700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1632.000	1530.000	1628.000	1860.000	1628.000	1860.000	1628.000	1860.000	1628.000	1860.000
GR	1627.800	2000.000	1626.500	2117.000	1626.900	2295.000	1624.000	2440.000	1623.600	2455.000
GR	1623.300	2602.000	1623.500	2737.000	1622.200	2831.000	1623.800	2888.000	1623.800	2981.000
GR	1623.300	3034.000	1623.500	3093.000	1624.000	3278.000	1628.000	4180.000	1630.000	4420.000

QT	3.000	1300.000	1400.000	1500.000	0.000	0.000	0.000	0.000	0.000	0.000

CL2732 MAIN BRANCH FLOWS

X1	1.170	22.000	2536.000	2797.000	740.000	710.000	720.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1636.000	1300.000	1636.000	1300.000	1636.000	1300.000	1636.000	1300.000	1636.000	1300.000
GR	1630.300	2000.000	1632.100	2047.000	1630.100	2109.000	1629.300	2174.000	1629.800	2284.000
GR	1627.700	2326.000	1630.100	2360.000	1630.300	2460.000	1631.500	2536.000	1628.600	2662.000
GR	1628.000	2732.000	1630.400	2797.000	1627.800	2947.000	1630.400	3037.000	1630.000	3500.000
GR	1632.000	3800.000	1633.000	3850.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1600.00 ELREA= 1596.00

FULL FLOW									
0.15	3.88	1595.88	1595.38	1597.00	1597.19	1.31	0.00	0.00	1600.00
48000.	0.	48000.	0.	0.	5235.	0.	0.	0.	1596.00
0.00	0.00	9.17	0.00	0.060	0.080	0.000	0.000	1592.00	8936.11
0.067632	0.	0.	0.	0	14	0	0.00	2001.61	10937.73

*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1824.682 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1621.20 ELREA= 1622.60

CL3689 FULL FLOW X-SECTION

0.94	2.25	1621.25	1621.25	0.00	1621.28	0.03	14.15	0.13	1621.20
18400.	18183.	217.	0.	13021.	480.	0.	751.	229.	1622.60
0.74	1.40	0.45	0.00	0.060	0.080	0.060	0.000	1619.00	364.76
0.000431	3200.	4150.	2800.	0	25	0	0.00	3537.64	3945.97

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1624.00 ELREA= 1623.80

CL2831 MAIN BRANCH FLOWS FROM RHY X1.34

1.04	1.64	1623.84	1623.84	0.00	1624.00	0.16	0.26	0.04	1624.00
700.	0.	624.	76.	0.	186.	39.	842.	257.	1623.80
0.79	0.00	3.35	1.93	0.060	0.070	0.060	0.000	1622.20	2463.17
0.074449	580.	540.	515.	20	13	0	0.00	756.70	3219.87

*SECNO 1.170

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1631.50 ELREA= 1630.40

CL2732 MAIN BRANCH FLOWS

1.17	2.42	1630.42	0.00	0.00	1630.47	0.05	6.46	0.01	1631.50
1300.	0.	561.	739.	0.	300.	434.	849.	272.	1630.40
0.90	0.00	1.87	1.70	0.060	0.070	0.060	0.000	1628.00	2582.82
0.004937	740.	720.	710.	9	0	0	0.00	980.56	3563.37

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 JML_NONDAM.DAT Nondamaging Flow Analysis - February 1988

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1600.00 ELREA= 1596.00

FULL FLOW

0.15	3.99	1595.99	1595.99	1597.00	1597.30	1.31	0.00	0.00	1600.00
50000.	0.	50000.	0.	0.	5451.	0.	0.	0.	1596.00
0.00	0.00	9.17	0.00	0.060	0.080	0.060	0.000	1592.00	8930.49
0.065629	0.	0.	0.	0	14	0	0.00	2036.94	10967.43

*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1818.012 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1621.20 ELREA= 1622.60

CL3689 FULL FLOW X-SECTION

0.94	2.21	1621.21	1621.21	0.00	1621.24	0.04	15.83	0.13	1621.20
20000.	19772.	228.	0.	12889.	464.	1.	755.	231.	1622.60
0.67	1.53	0.49	0.00	0.060	0.080	0.060	0.000	1619.00	370.33
0.000526	3200.	4150.	2800.	0	30	0	0.00	3529.17	3945.50

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1624.00 ELREA= 1623.80

CL2831 MAIN BRANCH FLOWS FROM RHY X1.34

1.04	1.67	1623.87	1623.37	0.00	1624.05	0.18	0.32	0.04	1624.00
800.	0.	698.	102.	0.	199.	49.	845.	259.	1623.80
0.72	0.00	3.51	2.09	0.060	0.070	0.060	0.000	1622.20	2458.87
0.076095	580.	540.	515.	20	14	0	0.00	771.80	3230.67

*SECNO 1.170

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1631.50 ELREA= 1630.40

CL2732 MAIN BRANCH FLOWS

1.17	2.48	1630.48	0.00	0.00	1630.53	0.05	6.47	0.01	1631.50
1400.	0.	597.	813.	0.	313.	481.	854.	273.	1630.40
0.33	0.00	1.88	1.59	0.060	0.070	0.060	0.000	1628.00	2580.21
0.004782	740.	720.	710.	9	8	0	0.00	992.15	3572.36

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 JML_NONDAM.DAT Noncamaging Flow Analysis - February 1988

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IPW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1600.00 ELREA= 1596.00

FULL FLOW

0.15	4.06	1596.06	1596.16	1597.00	1597.40	1.34	0.00	0.00	1600.00
52000.	0.	52000.	0.	0.	5606.	0.	0.	0.	1596.00
0.00	0.00	5.27	0.56	0.060	0.080	0.060	0.000	1592.00	8832.32
0.068931	0.	0.	0.	0	14	0	0.00	2142.63	10974.96

*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1829.259 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1621.20 ELREA= 1622.60

CL3638 FULL FLOW X-SECTION

0.94	2.25	1621.25	1621.25	0.00	1621.29	0.04	17.15	0.13	1621.20
22000.	21741.	259.	0.	13017.	479.	1.	768.	236.	1622.60
0.62	1.67	0.54	0.00	0.060	0.080	0.060	0.000	1619.00	364.96
0.000617	3200.	4150.	2800.	0	30	0	0.00	3537.34	3945.95

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1624.00 ELREA= 1623.80

CL2831 MAIN BRANCH FLOWS FROM BHY X1.34

1.04	1.68	1623.88	1623.83	0.00	1624.09	0.21	0.37	0.05	1624.00
900.	0.	782.	118.	0.	201.	51.	859.	264.	1623.80
0.66	0.00	3.88	2.31	0.060	0.070	0.060	0.000	1622.20	2458.04
0.091976	580.	540.	515.	20	13	0	0.00	774.70	3232.74

*SECNO 1.170
3840 SECTION NOT HIGH ENOUGH 1690.401 1683.000 1627.700 1686.000 1623.213 2

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1631.50 ELREA= 1630.40

CL2732 MAIN BRANCH FLOWS

1.17	2.55	1630.55	1630.11	0.00	1630.60	0.05	6.49	0.02	1631.50
1500.	0.	611.	889.	0.	327.	530.	868.	279.	1630.40
0.77	0.00	1.87	1.68	0.060	0.070	0.050	0.000	1628.00	2577.42
0.004547	740.	720.	710.	12	11	0	0.00	1004.57	3581.99

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

JML_NONDAM.DAT Nonda

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	3.150	0.00	0.00	0.00	1592.00	48000.00	1595.88	1595.88	1597.19	676.32	9.17	5234.67	1845.72

*	0.150	0.00	0.00	0.00	1592.00	50000.00	1595.99	1595.99	1597.30	656.29	9.17	5451.09	1951.74
*	0.150	0.00	0.00	0.00	1592.00	52000.00	1596.06	1596.06	1597.40	689.31	9.27	5606.65	1980.59
*	0.940	4150.00	0.00	0.00	1619.00	18400.00	1621.25	1621.25	1621.28	4.31	0.45	13501.41	8863.63
*	0.940	4150.00	0.00	0.00	1619.00	20000.00	1621.21	1621.21	1621.24	5.26	0.49	13353.03	8720.70
*	0.940	4150.00	0.00	0.00	1619.00	22000.00	1621.25	1621.25	1621.29	6.17	0.54	13496.23	8858.63
*	1.040	540.00	0.00	0.00	1622.20	700.00	1623.84	1623.84	1624.00	744.49	3.35	225.86	25.65
*	1.040	540.00	0.00	0.00	1622.20	800.00	1623.87	1623.87	1624.05	760.95	3.51	248.16	29.00
*	1.040	540.00	0.00	0.00	1622.20	900.00	1623.88	1623.88	1624.09	919.76	3.88	252.50	29.68
	1.170	720.00	0.00	0.00	1628.00	1300.00	1630.42	0.00	1630.47	49.37	1.87	733.92	185.01
	1.170	720.00	0.00	0.00	1628.00	1400.00	1630.48	0.00	1630.53	47.82	1.88	793.03	202.46
	1.170	720.00	0.00	0.00	1628.00	1500.00	1630.55	1630.11	1630.60	45.47	1.87	857.14	222.46

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	0.150	48000.00	1595.88	0.00	0.00	-1.12	2001.61	0.00
*	0.150	50000.00	1595.99	0.11	0.00	-1.01	2036.94	0.00
*	0.150	52000.00	1596.06	0.07	0.00	-0.94	2142.63	0.00
*	0.940	18400.00	1621.25	0.00	25.36	0.00	3537.64	4150.00
*	0.940	20000.00	1621.21	-0.04	25.21	0.00	3529.17	4150.00
*	0.940	22000.00	1621.25	0.04	25.18	0.00	3537.34	4150.00
*	1.040	700.00	1623.84	0.00	2.60	0.00	756.70	540.00
*	1.040	800.00	1623.87	0.03	2.67	0.01	771.80	540.00
*	1.040	900.00	1623.88	0.01	2.63	0.00	774.70	540.00
	1.170	1300.00	1630.42	0.00	6.58	0.00	980.56	720.00
	1.170	1400.00	1630.48	0.06	6.61	0.00	992.15	720.00
	1.170	1500.00	1630.55	0.07	6.67	0.00	1004.57	720.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 0.150 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.150 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.150 PROFILE= 3 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.940 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.940 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.940 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.940 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.940 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.940 PROFILE= 3 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1.040 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.040 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.040 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1.040 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.040 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.040 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=     1.040   PROFILE= 3  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     1.040   PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     1.040   PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

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   ************************************************
     HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
     ERROR CORR -  01,02,03,04,05
     MODIFICATION -  50,51,52,53,54,55
   ************************************************



 EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  17-NOV-87 TIME   11:49:51          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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See 0.15 - 1.17

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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX

1
  17-NOV-87    11:49:52                                                    PAGE    1

 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ************************************************

C
T1       Clark County Regional Flood Control District/Corps of Engineers
T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3       LVWDCJML.DAT              25-YR Flood Analysis - July 1987

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        0.        0.  -1.000000      0.00      0.0       0.  1597.000     0.000
J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3   VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.060     0.060     0.080     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       4.000  5400.000 10000.000 18500.000 60000.000     0.000     0.000     0.000     0.000     0.000
           FULL FLOW
X1       0.150    12.000  8360.000 10970.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    1604.000  8150.000  1600.000  8360.000  1596.000  8840.000  1596.000  8930.000  1592.000  9140.000
GR    1592.000  9650.000  1592.500 10000.000  1596.000 10970.000  1600.000 11280.000  1600.000 11700.000
GR    1604.000 12080.000  1608.000 12210.000     0.000     0.000     0.000     0.000     0.000     0.000

           CL3689 FULL FLOW X-SECTION
X1       0.940    14.000  3524.000  3961.000  3200.000  2800.000  4150.000     0.000     0.000     0.000
X4       1.000  1620.000  5000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    1624.000     0.000  1620.000   530.000  1616.000  1100.000  1616.000  2560.000  1619.000  3445.000
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GR    1621.200    3524.000    1619.000    3689.000    1619.500    3769.000    1622.000    3877.000    1619.000    3921.000
GR    1622.500    3961.000    1621.800    3999.000    1620.700    4046.000    1624.000    6000.000       0.000       0.000

NC       0.060       0.060       0.070       0.100       0.300       0.000       0.000       0.000       0.000       0.000
QT       4.000     734.000    1096.000    1253.000    2885.000       0.000       0.000       0.000       0.000       0.000
          CL2831 MAIN BRANCH FLOWS FROM BHY X1.34
X1       1.040      20.000    2440.000    2888.000     580.000     515.000     540.000       0.000       0.000       0.000
X4       1.000    1624.000    3700.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
GR    1632.000    1530.000    1628.000    1860.000    1628.000    1860.000    1628.000    1860.000    1628.000    1860.000
GR    1627.300    2000.000    1626.500    2117.000    1626.900    2295.000    1624.000    2440.000    1623.600    2459.000
GR    1623.800    2402.000    1623.500    2737.000    1622.200    2831.000    1623.800    2888.000    1623.800    2981.000
GR    1623.300    3034.000    1623.500    3093.000    1624.000    3278.000    1628.000    4180.000    1630.000    4420.000
1
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          CL2732 MAIN BRANCH FLOWS
X1       1.170      22.000    2536.000    2797.000     740.000     710.000     720.000       0.000       0.000       0.000
GR    1636.300    1300.000    1635.000    1300.000    1636.000    1300.000    1636.000    1300.000    1636.000    1300.000
GR    1630.800    2000.000    1632.100    2047.000    1630.100    2109.000    1629.300    2174.000    1629.800    2284.000
GR    1627.700    2326.000    1630.100    2360.000    1630.300    2460.000    1631.500    2536.000    1628.600    2662.000
GR    1628.000    2732.000    1630.400    2797.000    1627.800    2947.000    1630.400    3037.000    1630.000    3500.000
GR    1632.000    3800.000    1633.000    3950.000       0.000       0.000       0.000       0.000       0.000       0.000
EJ       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
1
  17-NOV-87     11:49:52                                                                                        PAGE     3

   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL        QLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL       TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN       ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR     TCPWID      ENDST

  •PROF 1

  CCHV=   0.100 CEHV=   0.300
  •SECNO 0.150
  3720 CRITICAL DEPTH ASSUMED
            FULL FLOW
       0.15       1.15  1593.15  1593.15  1597.00  1593.61     0.46     0.00     0.00  1600.00
    5400.         0.    5400.       0.       0.     994.        0.       0.       0.  1596.00
       0.00       0.00     5.43     0.00     0.060    0.080    0.050    0.000  1592.00  9079.67
  0.097992         0.       0.       0.        0       16          0     0.00  1100.24 10179.91
)
  •SECNO 0.940
  3840 SECTION NOT HIGH ENOUGH  1924.655  1674.000  1616.000  1674.000     0.000         2
            CL3589 FULL FLOW X-SECTION
       0.94       1.83  1617.83  1616.72     0.00  1617.87     0.04    24.22     0.04  1621.20
    5400.      5400.       0.       0.    3398.       0.        0.     172.     135.    1622.60
       0.64       1.59     0.00     0.00     0.060    0.080    0.060    0.000  1616.00   839.61
  0.002175     3200.    4150.    2803.        7          14          0     0.00  2259.43  3099.04
)
  CCHV=   0.100 CEHV=   0.300
  •SECNO 1.040
  3685 20 TRIALS ATTEMPTED WSEL,CWSEL
  3693 PROBABLE MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED
            CL2831 MAIN BRANCH FLOWS FROM BHY X1.34
       1.04       1.65  1623.85  1623.85     0.00  1624.02     0.16     1.50     0.04  1624.00
     734.         0.     649.      85.        0.     191.       43.      196.     155.    1623.80
       0.69       0.00     3.39     1.97     0.060    0.070    0.060    0.000  1622.20  2461.44
  0.074091      580.     540.     515.       20          10          0     0.00   762.76  3224.21
)
  •SECNO 1.170
```

3265 DIVIDED FLOW

CL2732 MAIN BRANCH FLOWS

1.17	2.24	1629.94	0.30	0.00	1629.97	0.03	5.94	0.01	1631.50
734.	172.	260.	302.	147.	206.	213.	203.	166.	1630.40
0.84	1.17	1.25	1.42	0.060	0.070	0.060	0.000	1627.70	2121.27
0.002972	740.	720.	710.	9	0	0	0.00	616.35	3021.39

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3 LVWDCJML.DAT 50-YR Flood Analysis - July 1987

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED
FULL FLOW

0.15	1.64	1593.64	1593.54	1597.00	1594.27	0.63	0.00	0.00	1600.00
10000.	0.	10000.	0.	0.	1569.	0.	0.	0.	1596.00
0.00	0.00	6.37	0.00	0.060	0.080	0.050	0.000	1592.00	9054.07
0.087896	0.	0.	0.	0	16	0	0.00	1260.96	10315.03

*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1890.956 1674.000 1616.000 1674.000 0.000 2

3301 HV CHANGED MORE THAN HVINS

CL3689 FULL FLOW X-SECTION

0.94	2.54	1618.54	1617.37	0.00	1619.60	0.06	24.28	0.06	1621.20
10000.	10000.	0.	0.	5126.	0.	0.	263.	155.	1622.60
0.52	1.95	0.00	0.00	0.060	0.080	0.060	0.000	1616.00	737.71
0.002218	3200.	4150.	2800.	6	14	0	0.00	2572.28	3310.00

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CL2831 MAIN BRANCH FLOWS FROM RHY X1.34									
1.04	1.78	1623.98	1623.98	0.00	1624.16	0.18	1.46	0.04	1624.00
1096.	0.	886.	210.	0.	244.	97.	299.	177.	1623.80
0.57	0.00	3.63	2.42	0.060	0.070	0.060	0.000	1622.20	2443.60
0.065020	580.	540.	515.	20	16	0	0.00	825.37	3268.97

*SECNO 1.170

3265 DIVIDED FLOW

CL2732 MAIN BRANCH FLOWS									
1.17	2.52	1630.22	0.00	0.00	1630.25	0.03	6.07	0.02	1631.50
1096.	296.	364.	437.	218.	258.	303.	308.	192.	1630.40
0.71	1.35	1.41	1.44	0.060	0.070	0.060	0.000	1627.70	2105.24
0.003139	740.	720.	710.	9	0	0	0.00	1028.87	3533.20

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3 LVWDCJML.DAT 100-YR Flood Analysis - July 1987

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED

FULL FLOW									
0.15	2.31	1594.31	1594.31	1597.00	1595.17	0.85	0.00	0.00	1600.00
18500.	0.	18500.	0.	0.	2495.	0.	0.	0.	1596.00
0.00	0.00	7.41	0.00	0.060	0.080	0.060	0.000	1592.00	9018.65
0.079641	0.	0.	0.	0	13	0	0.00	1483.37	10502.02

*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1863.735 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CL3689 FULL FLOW X-SECTION

0.94	3.48	1619.48	1617.57	0.09	1619.57	0.09	24.33	0.08	1621.20
18500.	18490.	10.	0.	7708.	30.	0.	403.	182.	1622.60
0.43	2.40	0.34	0.33	0.060	0.080	0.060	0.000	1616.00	603.70
0.002259	3200.	4150.	2800.	6	14	0	0.00	2984.54	3926.36

)
CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CL2831 MAIN BRANCH FLOWS FROM BHY X1.34

1.04	1.82	1624.02	1624.32	0.00	1624.21	0.19	1.40	0.03	1624.00
1253.	0.	982.	271.	0.	263.	110.	457.	209.	1623.80
0.47	0.06	3.74	2.47	0.060	0.070	0.060	0.000	1622.20	2439.16
0.063372	580.	540.	515.	20	11	0	0.00	1262.84	3702.31

)
*SECNO 1.170
1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

3265 DIVIDED FLOW

CL2732 MAIN BRANCH FLOWS

1.17	2.61	1630.31	0.00	0.00	1630.34	0.03	6.12	0.02	1631.50
1253.	350.	403.	500.	249.	277.	355.	468.	229.	1630.40
0.61	1.40	1.45	1.41	0.060	0.070	0.060	0.000	1627.70	2102.40
0.003185	740.	720.	710.	7	8	0	0.00	1206.48	3546.93

)
1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 LVWDCJML.DAT 500-YR Flood Analysis - July 1987

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED
FULL FLOW

0.15	4.34	1596.34	1596.34	1597.00	1597.79	1.45	0.00	0.00	1600.00
60000.	0.	59991.	9.	0.	6201.	4.	0.	0.	1596.00
0.00	0.00	5.68	1.96	0.060	0.080	0.060	0.000	1592.00	8799.23
0.066940	0.	0.	0.	0	14	0	0.00	2197.09	10996.33

*SECNO 0.940
3940 SECTION NOT HIGH ENOUGH 1822.799 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CL3689 FULL FLOW X-SECTION

0.94	6.03	1622.03	1619.15	0.00	1622.22	0.19	24.30	0.13	1621.20
60000.	55554.	1078.	3363.	15537.	798.	2156.	973.	293.	1622.60
0.30	3.58	1.35	1.56	0.060	0.090	0.060	0.000	1616.00	260.97
0.002329	3200.	4150.	2800.	6	19	0	0.00	5213.24	5507.60

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CL2831 MAIN BRANCH FLOWS FROM BHY X1.34

1.04	2.09	1624.29	1624.29	0.00	1624.55	0.26	1.39	0.02	1624.00
2885.	3.	1749.	1132.	2.	384.	335.	1099.	335.	1623.80
0.34	1.62	4.55	3.39	0.060	0.070	0.060	0.000	1622.20	2425.59
0.056478	580.	540.	515.	20	21	0	0.00	1309.00	3734.58

*SECNO 1.170

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

CL2732 MAIN BRANCH FLOWS

1.17	3.18	1630.88	0.33	0.00	1630.93	0.05	6.36	0.02	1631.50
2885.	844.	722.	1319.	470.	404.	803.	1119.	358.	1630.40
0.45	1.80	1.79	1.54	0.060	0.070	0.060	0.000	1627.70	1588.76
0.003436	740.	720.	710.	10	0	0	0.00	1496.25	3632.53

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LVWDCJML.DAT

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	0.150	0.00	0.00	0.00	1592.00	5400.00	1593.15	1593.15	1593.61	979.92	5.43	993.85	172.50
*	0.150	0.00	0.00	0.00	1592.00	10000.00	1593.64	1593.64	1594.27	878.86	6.37	1569.45	337.32
*	0.150	0.00	0.00	0.00	1592.00	18500.00	1594.31	1594.31	1595.17	796.41	7.41	2495.19	655.55
*	0.150	0.00	0.00	0.00	1592.00	60000.00	1596.34	1596.34	1597.79	669.40	9.68	6205.00	2319.04
	0.940	4150.00	0.00	0.00	1616.00	5400.00	1617.83	1616.72	1617.87	21.75	0.00	3398.15	1157.87
	0.940	4150.00	0.00	0.00	1616.00	10000.00	1618.54	1617.07	1618.60	22.18	0.00	5125.69	2123.38
	0.940	4150.00	0.00	0.00	1616.00	18500.00	1619.48	1617.57	1619.57	22.59	0.34	7738.43	3892.00
	0.940	4150.00	0.00	0.00	1616.00	60000.00	1622.03	1619.15	1622.22	23.29	1.35	18490.63	12432.72
*	1.040	540.00	0.00	0.00	1622.20	734.00	1623.85	1623.85	1624.02	740.91	3.39	234.76	26.97
*	1.040	540.00	0.00	0.00	1622.20	1096.00	1623.98	1623.98	1624.16	650.20	3.63	330.83	42.98
*	1.040	540.00	0.00	0.00	1622.20	1253.00	1624.02	1624.02	1624.21	633.72	3.74	372.23	49.77
*	1.040	540.00	0.00	0.00	1622.20	2885.00	1624.29	1624.29	1624.55	564.78	4.55	721.33	121.40
	1.170	720.00	0.00	0.00	1627.70	734.00	1629.94	0.00	1629.97	29.72	1.26	566.70	134.64
	1.170	720.00	0.00	0.00	1627.70	1096.00	1630.22	0.00	1630.25	31.39	1.41	779.32	195.62
	1.170	720.00	0.00	0.00	1627.70	1253.00	1630.31	0.00	1630.34	31.85	1.45	881.85	222.02
	1.170	720.00	0.00	0.00	1627.70	2885.00	1630.88	0.00	1630.93	34.36	1.79	1676.47	492.19

LVWDCJML.DAT

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	0.150	5400.00	1593.15	0.00	0.00	-3.85	1100.24	0.00
*	0.150	10000.00	1593.64	0.49	0.00	-3.36	1260.96	0.00
*	0.150	18500.00	1594.31	0.67	0.00	-2.69	1483.37	0.00
*	0.150	60000.00	1596.34	2.03	0.00	-0.66	2197.09	0.00
	0.940	5400.00	1617.83	0.00	24.68	0.00	2259.43	4150.00
	0.940	10000.00	1618.54	0.71	24.91	0.00	2572.28	4150.00
	0.940	18500.00	1619.48	0.94	25.17	0.00	2984.54	4150.00
	0.940	60000.00	1622.03	2.55	25.69	0.00	5213.24	4150.00
*	1.040	734.00	1623.85	0.00	6.03	0.00	762.76	540.00
*	1.040	1096.00	1623.98	0.12	5.43	0.00	825.37	540.00
*	1.040	1253.00	1624.02	0.04	4.53	0.00	1262.84	540.00
*	1.040	2885.00	1624.29	0.27	2.26	0.00	1309.00	540.00

1.170	734.00	1529.94	0.00	6.09	0.00	616.35	720.00
1.170	1096.00	1630.22	0.27	6.24	0.00	1028.87	720.00
1.170	1253.00	1639.31	0.09	6.29	0.00	1206.48	720.00
1.170	2885.00	1630.88	0.57	6.60	0.00	1496.25	720.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=    0.150  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.150  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.150  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.150  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    1.040  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.040  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.040  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    1.040  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.040  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.040  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    1.040  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.040  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.040  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    1.040  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.040  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.040  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -   50,51,52,53,54,55
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EOF..

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     33
   2.23        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   2.23        Centerline Station at 2506
   2.27        Centerline Station at 2219
  2.284        Centerline Station at 2323
  2.285        Centerline Station at 2323
  2.301        **** Vegas Valley Drive (NB) ****
  2.301        2* Debris Loading
  2.301        Centerline Station at 2323
  2.302        Centerline Station at 2323
   2.31        Centerline Station at 2240
   2.33        Centerline Station at 2240
   2.54        Centerline Station at 2872
   2.78        Centerline Station at 3462
    3.0        Centerline Station at 10000
  3.256        Centerline Station at 10000
  3.262        Centerline Station at 10000
  3.274        **** Winterwood Golf Course Bridge #1**
  3.274        2* Debris Loading
  3.274        Single cross section normal bridge
  3.274        Centerline Station at 10000
   3.28        Centerline Station at 10000
   3.47        Centerline Station at 10000
   3.49        Centerline Station at 10000
  3.506        **** Winterwood Golf Course Bridge #2**
  3.506        2* Debris Loading
  3.506        Single cross section normal bridge
  3.506        Centerline Station at 10000
   3.51        Centerline Station at 10000
   3.69        Centerline Station at 10000
   3.86        Centerline Station at 10000
    4.0        Centerline Station at 10000
   4.23        Centerline Station at 10000
   4.42        Centerline Station at 10000
T1             CCRFCD/COE OVERFLOW STUDY
T2             JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3             LAS VEGAS WASH - 25-YEAR (d/s Reach)
J1                    2                                          0.5          1695.7
J2          -1                  -1
J3         150
NC     0.030       0.10     0.035       0.1       0.3
QT           1     7800
ET                  7.1                                         900     3092
X1      2.23          38      2456      2740
GR1716.0             900   1712.0      1110    1708.0      1250    1704.0      1450    1700.0      1605
GR1696.0            1885   1692.0      1910    1692.0      1935    1693.7      2000    1694.4      2187
GR1694.5            2353   1694.2      2420    1692.9      2429    1696.0      2456    1692.6      2482
GR1692.6            2494   1688.2      2506    1689.3      2552    1689.8      2560    1689.7      2606
GR1689.7            2628   1690.3      2646    1692.1      2660    1691.2      2689    1691.5      2701
GR1694.0            2740   1692.3      3010    1690.2      3022    1692.7      3056    1702.3      3092
GR1700.0            3120   1696.0      3139    1696.0      3980    1700.0      3985    1701.7      4020
GR1700.0            4060   1700.0      5800    1704.0      7440
NC      0.03        0.06     0.030
X1      2.27          38      2155      2345       220       150       203
GR1716.0               1   1712.0        35    1708.0       225    1704.0       880    1700.0      1085
GR1700.0            1200   1696.0      1350    1696.0      1500    1695.5      2000    1695.5      2032
GR1694.5            2093   1693.9      2120    1696.3      2142    1695.3      2155    1693.4      2165
GR1689.7            2175   1689.7      2210    1688.5      2219    1689.9      2252    1690.1      2277
GR1693.1            2297   1693.1      2337    1693.5      2345    1694.1      2385    1694.7      2405
GR1694.8            2550   1696.5      2600    1693.0      2760    1704.0      2930    1700.0      2945
GR1696.0            2955   1696.0      3670    1700.0      3680    1700.0      5025    1704.0      7140
GR1708.0            7380   1708.0      7590    1710.0      9105
NC                                      0.3       0.5
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X1  2.284          25        2250        2395         100         100         100
X3                                                   3032      1704.0
GR1716.0           100      1712.0         120      1708.0         260      1704.0         950      1700.0        1160
GR1700.0          1330      1696.0        1450      1695.0        2000      1695.0        2250      1686.8        2252
GR1686.8          2394      1695.0        2395      1696.0        2655      1696.5        2692      1693.0        2852
GR1704.0          3032      1700.0        3050      1696.0        3060      1696.0        3685      1700.0        3695
GR1700.0          5070      1704.0        7185      1708.0        7470      1708.0        7690      1710.0        9230
X1  2.285           63        2250        2395           1           1           1
X2                                                                                                                   15
X3                                                   3032      1704.0
BT        6        2000      1695.0      1695.0        2248      1695.0      1695.0      2249.9      1696.3      1686.8
BT2396.1          1696.3      1686.8        2397      1695.0         260      1704.0         950      1700.0        1160
GR1716.0           100      1712.0         120      1708.0         260      1704.0         950      1700.0        1160
GR1700.0          1330      1696.0        1450      1695.0        2000      1695.0        2248      1692.3        2249.8
GR1686.8          2249.9      1686.8      2263.9      1692.3      2263.9      1692.3      2264.5      1686.8      2264.6
GR1686.8          2278.5      1692.3      2279.6      1692.3      2279.2      1686.8      2279.3      1686.8      2293.2
GR1692.3          2293.3      1692.3      2293.9      1686.8      2294.0      1686.8      2307.5      1692.3      2308.0
GR1692.3          2309.6      1686.8      2309.7      1686.8      2322.6      1692.3      2322.7      1692.3      2323.3
GR1686.8          2323.4      1686.8      2337.3      1692.3      2337.4      1692.3      2338.0      1686.8      2338.1
GR1686.8          2352.0      1692.3      2352.1      1692.3      2352.7      1686.8      2352.8      1686.8      2366.7
GR1692.3          2366.8      1692.3      2367.4      1686.8      2367.5      1686.8      2381.4      1692.3      2381.5
GR1692.3          2382.1      1686.8      2382.2      1686.8      2396.1      1692.3      2396.2      1695.0        2397
GR1696.0          2655        1696.5        2692      1693.0        2852      1704.0         3032      1700.0        3050
GR1696.0          3050        1696.0        3685      1700.0        3695      1700.0         5070      1704.0        7185
GR1708.0          7470        1708.0        7690      1710.0        9230
X1  2.301           53        2250        2395          87          87          87
X2                                                                                                                   15
X3                                                   3032      1704.0
BT        6        2000      1695.0      1695.0        2250      1695.0      1695.0      2251.9      1696.3      1686.8
BT2394.1          1693.1      1686.8        2395      1695.0      1695.0         2655      1696.0      1696.0
GR1716.0           100      1712.0         120      1708.0         260      1704.0         950      1700.0        1160
GR1700.0          1330      1696.0        1450      1695.0        2000      1695.0        2250      1692.3        2251.8
GR1686.8          2251.9      1686.8      2261.8      1692.3      2261.9      1692.3      2266.5      1686.8      2266.6
GR1686.8          2276.5      1692.3      2276.6      1692.3      2281.2      1686.8      2281.3      1686.8      2291.2
GR1692.3          2291.3      1692.3      2295.9      1686.8      2296.0      1686.8      2305.9      1692.3      2306.0
GR1692.3          2310.6      1686.8      2310.7      1686.8      2320.6      1692.3      2320.7      1692.3      2325.3
GR1686.8          2325.4      1686.8      2335.3      1692.3      2335.4      1692.3      2340.0      1686.8      2340.1
GR1686.8          2350.0      1692.3      2350.1      1692.3      2354.7      1686.8      2354.8      1686.8      2364.7
GR1692.3          2364.8      1692.3      2369.4      1686.8      2369.5      1686.8      2379.4      1692.3      2379.5
GR1692.3          2384.1      1686.8      2394.2      1686.8      2394.1      1692.3      2394.2      1695.0        2395
GR1696.0          2655        1696.5        2692      1693.0        2852      1704.0         3032      1700.0        3050
GR1696.0          3050        1696.0        3685      1700.0        3695      1700.0         5070      1704.0        7185
GR1708.0          7470        1708.0        7690      1710.0        9230
X1  2.302           25        2250        2395           1           1           1
X3                                                   3032      1704.0
GR1716.0           100      1712.0         120      1708.0         260      1704.0         950      1700.0        1160
GR1700.0          1330      1696.0        1450      1695.0        2000      1695.0        2250      1686.8        2252
GR1686.8          2394      1695.0        2395      1696.0        2655      1696.5        2692      1693.0        2852
GR1704.0          3032      1700.0        3050      1696.0        3060      1696.0        3685      1700.0        3695
GR1700.0          5070      1704.0        7185      1708.0        7470      1708.0        7690      1710.0        9230
X1   2.31           44        2181        2420          50          50          50
X3                                                   2995      1704.0
GR1716.0           250      1712.0         270      1708.0         430      1704.0         790      1700.0        1000
GR1696.0          1410      1696.0        1505      1700.0        1515      1700.0        1620      1704.0        1670
GR1704.0          1930      1700.0        1940      1696.7        2000      1696.7        2032      1694.9        2102
GR1694.9          2164      1696.6        2172      1698.0        2181      1694.2        2198      1690.1        2208
GR1690.1          2223      1689.0        2229      1689.0        2251      1690.8        2279      1693.7        2300
GR1691.1          2364      1693.1        2388      1694.2        2420      1695.4        2443      1695.4        2564
GR1696.5          2600      1696.0        2760      1696.0        2955      1700.0        2965      1704.0        2995
GR1700.0          3085      1696.0        3190      1696.0        3585      1700.0        3695      1700.0        4990
GR1704.0          6950      1708.0        7350      1708.0        7580      1710.0        9120
NC  0.045        0.035        0.03         0.1           0.3
DT        1        7800
X1   2.33                                              125          95         110
X3                                                   1930      1704.0        2995      1704.0
NC   0.06         0.05         0.03
X1   2.54           36        2727        2917        1200         900        1116
X3                                                                         3045      1702.4
```

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GR1712.0      795    1702.0      785    1704.0      785    1700.0     1045    1700.0     1515
GR1700.0     1315    1698.0     2100    1697.8     2578    1697.7     2690    1698.2     2703
GR1695.2     2710    1695.2     2727    1691.0     2744    1691.8     2793    1691.4     2843
GR1690.0     2972    1691.0     2996    1695.3     2917    1701.4     3025    1702.4     3045
GR1701.8     3121    1701.8     3161    1700.6     3239    1700.6     3326    1699.1     3365
GR1697.7     3430    1696.9     3499    1696.8     3561    1696.8     3577    1701.0     3670
GR1700.0     3720    1700.0     5070    1704.0     7190    1708.0     7640    1708.0     7875
GR1710.0     8640
X1  2.78       34      3417     3503        950        900       1240
X3                           3417    1705.2     3671    1703.5
GR1712.0        0    1708.0      305    1704.0      885    1704.0     2120    1704.0     2260
GR1704.0     2450    1704.0     3380    1705.2     3417    1705.2     3417    1705.2     3417
GR1705.2     3417    1693.6     3427    1691.9     3431    1691.3     3434    1691.3     3449
GR1690.9     3451    1690.9     3473    1691.6     3496    1702.7     3503    1703.5     3671
GR1702.6     3704    1701.9     3718    1701.9     3726    1701.9     3742    1703.0     3748
GR1702.8     3778    1702.5     4003    1701.5     4234    1702.5     4359    1703.5     4460
GR1702.5     5070    1704.0     5640    1708.0     7010    1710.0     7630
NH      5    0.045      9918    0.050     10138    0.045      10362    0.130     12103     0.04
NH  13578
X1  3.04       36      9918    10138        600       1450       1380
X3                           9759    1714.1
GR1716.0     5153    1712.0     5553    1708.0     6393    1704.0     7208    1704.0     7323
GR1704.0     7453    1708.0     7673    1708.0     9473    1712.0     9713    1714.1     9798
GR1713.5     9885    1709.3     9918    1708.3     9954    1704.6     9969    1697.0     9987
GR1697.0     9993    1697.0    10012    1699.1    10033    1695.8    10057    1696.0    10067
GR1698.5    10069    1698.0    10076    1696.8    10079    1696.8    10093    1702.8    10108
GR1709.5    10138    1709.7    10173    1708.4    10188    1708.4    10253    1708.4    10268
GR1712.0    10309    1711.9    10335    1711.1    10362    1709.3    10860    1712.0    12103
GR1716.0    13578
NC 0.045    0.045      0.05
X1 3.256       32      9863    10103        800       1250       1144
X3                           9824    1714.9    10273    1716.8
GR1728.0     3820    1724.0     4305    1720.0     4475    1716.0     5215    1712.0     5340
GR1708.0     6620    1708.0     6775    1708.0     6920    1708.0     8135    1712.0     9410
GR1713.8     9673    1712.4     9783    1714.9     9824    1714.3     9863    1710.1     9907
GR1707.7     9983    1706.8     9995    1706.8    10013    1708.4    10027    1709.9    10066
GR1714.7    10103    1716.1    10159    1716.8    10273    1716.0    10326    1712.0    10545
GR1708.0    10575    1708.0    10655    1712.0    10695    1716.0    11745    1720.0    13155
GR1724.0    13440    1728.0    14900
X1  3.262                                   30         30         30
X3                           9824    1714.9    10273    1716.8
NC                            0.3       0.5
ET              7.1                                    9824    10273
X1  3.274       53      9909    10100     58.25      68.25      63.25
X2                                                                          15
BT      2    9900    1714.0    1713.0    10100    1714.0    1713.0
GR1728.0     3820    1724.0     4305    1720.0     4475    1716.0     5215    1712.0     5340
GR1708.0     6620    1708.0     6775    1708.0     6920    1708.0     8135    1712.0     9410
GR1713.8     9673    1712.4     9783    1714.9     9824    1714.3     9863    1712.0     9880
GR1714.0     9900    1710.0    9923.1    1713.0    9923.2    1713.0    9928.1    1710.0    9928.2
GR1709.0    9949.0    1713.0    9949.1    1713.0     9954.0    1709.0     9954.1    1708.0     9975.0
GR1713.0    9975.1    1713.0     9980.0    1708.0     9980.1    1709.0    10020.0    1713.0    10020.1
GR1713.0   10025.0    1708.0   10025.1    1709.0    10046.0    1713.0    10046.1    1713.0    10051.0
GR1709.0   10051.1    1710.0   10072.0    1713.0    10072.1    1713.0    10077.0    1710.0    10077.1
GR1714.0    10100    1712.0     10120    1716.1     10159    1716.8     10273    1716.0     10326
GR1712.0    10545    1708.0     10575    1708.0     10655    1712.0     10695    1716.0     11745
GR1720.0    13155    1724.0     13440    1728.0     14900
ET              7.1                                    9824    10273
X1  3.28        32      9863    10103     43.25      53.25      43.25
GR1728.0     3820    1724.0     4305    1720.0     4475    1716.0     5215    1712.0     5340
GR1708.0     6620    1708.0     6775    1708.0     6920    1708.0     8135    1712.0     9410
GR1713.8     9673    1712.4     9783    1714.9     9824    1714.3     9853    1710.1     9907
GR1708.0     9983    1708.0     9995    1708.0    10013    1708.4    10027    1709.5    10066
GR1714.7    10103    1716.1    10159    1716.8    10273    1716.0    10326    1712.0    10545
GR1708.0    10575    1708.0    10655    1712.0    10695    1716.0    11745    1720.0    13155
GR1724.0    13440    1728.0    14900
NC                            0.1       0.3
NH      6    0.045      9552    0.028      9942    0.023     10056    0.028     10168     0.13
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NH 13430    0.040     15535
ET            7.1                                                  9552     10218
K1   3.47       31      9942     10056       620      1000         976
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1717.4      9650    1717.2      9717    1716.8      9830    1715.1      9886
GR1716.7      9914    1716.5      9942    1709.8     10000    1710.7     10017    1711.6     10056
GR1713.4     10076    1718.9     10168    1720.1     10218    1716.7     10299    1717.0     10655
GR1720.0     10955    1720.0     11970    1724.0     12885    1728.0     13430    1728.0     14405
GR1732.0     15535
ET            7.1                                                  9552     10218
K1   3.49                                    120       120         120
NC                                0.3       0.5
NH          6    0.045      9552     0.028     9952     0.023     10048     0.028     10168     0.13
NH 13430    0.040     15535
ET            7.1                                                  9610     10218
K1  3.506       40      9952     10048        84        84          84
K2                                                                                                15
BT          2    9952    1718.3    1716.0    10048    1718.0    1716.0
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1720.0      9610    1717.4      9650    1717.2      9717    1716.8      9830
GR1715.1      9886    1716.7      9914    1716.0      9952    1712.2    9952.1    1712.2    9986.9
GR1716.0    9987.0    1716.0    9992.4    1712.2    9992.5    1712.2   10007.3    1716.0   10007.4
GR1716.0   10012.9    1712.2   10013.0    1712.2   10047.9    1718.0     10048    1713.4     10076
GR1718.9     10158    1720.1     10218    1716.7     10299    1717.0     10655    1720.0     10955
GR1720.0     11970    1724.0     12885    1728.0     13430    1728.0     14405    1732.0     15535
NH          6    0.045      9552     0.028      9942     0.023     10056     0.028     10168     0.13
NH 13430    0.040     15535
ET            7.1                                                  9610     10218
K1   3.51       32      9942     10056        44        44          44
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1720.0      9610    1717.4      9650    1717.2      9717    1716.8      9830
GR1715.1      9886    1716.7      9914    1716.5      9942    1712.0     10000    1712.0     10017
GR1712.0     10056    1713.4     10076    1718.9     10168    1720.1     10218    1716.7     10299
GR1717.0     10655    1720.0     10955    1720.0     11970    1724.0     12885    1728.0     13430
GR1728.0     14405    1732.0     15535
NC                                0.1       0.3
NH          5    0.045      9645     0.028      9897     0.023     10222     0.110     12895     0.045
NH 14765
K1   3.69       33      9897     10222       950       850         908
K3                                 9681    1731.1    10222    1723.8
GR1732.0      3795    1728.0      3880    1724.0      3970    1724.0      4515    1720.0      5705
GR1716.0      6660    1716.0      6795    1720.0      7375    1720.0      8060    1721.7      8100
GR1720.0      8140    1720.0      9320    1724.0      9535    1728.6      9645    1731.1      9681
GR1721.4      9747    1720.7      9780    1720.1      9861    1720.3      9897    1715.4      9930
GR1716.8      9971    1715.2      9994    1715.2     10005    1715.4     10025    1715.4     10035
GR1719.0     10059    1723.8     10222    1720.4     10355    1724.0     10545    1724.0     12895
GR1728.0     13735    1728.0     14075    1732.0     14765
NH          7    0.045      6875     0.130      9105     0.028      9921     0.023     10111     0.028
NH 10364    0.110     12500     0.045     14640
K1   3.86       50      9921     10111       950       880         908
K3                                 9828    1726.3    10137    1729.3
GR1740.0      3430    1736.0      3685    1732.0      4030    1728.0      4505    1724.0      5940
GR1724.0      6075    1724.0      6875    1724.0      8840    1727.9      9105    1727.9      9177
GR1724.7      9134    1724.7      9203    1725.9      9230    1728.8      9255    1728.0      9326
GR1728.0      9410    1727.4      9426    1725.0      9448    1723.8      9544    1723.8      9613
GR1724.9      9619    1724.9      9624    1724.2      9629    1723.2      9637    1723.2      9653
GR1725.1      9656    1725.3      9725    1726.0      9762    1726.3      9828    1726.3      9875
GR1725.9      9921    1721.3      9941    1720.3      9994    1719.2      9997    1719.2     10002
GR1720.7     10004    1720.7     10038    1723.9     10078    1727.2     10111    1729.3     10137
GR1728.1     10165    1726.9     10221    1726.2     10283    1726.7     10364    1724.0     10960
GR1724.0     11920    1728.0     12500    1728.0     13260    1729.8     13910    1732.0     14640
NH          7    0.050      5160     0.130      9619     0.030      9913     0.028     10100     0.030
NH 10271    0.130     12400     0.045     14210
K1   4.04       38      9913     10100      1000         900         960
K2                                                                                                15
K3                                                                                                15
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X3                                 9672   1732.4   10317  1731.2
GR1736.0     3440   1732.0        4945   1732.3    5160  1732.0     8340  1728.0     8740
GR1732.0     9485   1732.0        9585   1729.8    9619  1729.9     9650  1732.4     9672
GR1732.4     9771   1729.9        9794   1729.9    9827  1729.2     9913  1722.0     9949
GR1721.7     9934   1721.0        9997   1721.0   10003  1722.5    10005  1722.1    10047
GR1727.4    10079   1730.9       10100   1731.8   10113  1732.0    10136  1731.5    10172
GR1730.1    10196   1730.5       10232   1731.2   10271  1731.2    10317  1726.6    10333
GR1726.6    10399   1731.5       10413   1731.5   10442  1728.0    10890  1728.0    12400
GR1732.0    13450   1732.0       13980   1736.0   14210
VH      9    0.045     4310      0.130     7565   0.040     8365   0.130     8720   0.030
VH   9900    0.028    10100       0.03    10247   0.130    12915   0.100    14920
X1   4.23       36     9900      10247     1100     950     1020
X3                                 9140   1736.0   10350  1734.5
GR1740.0     3570   1736.0        3850   1736.0    4310  1736.0     6095  1732.0     7375
GR1732.0     7555   1736.0        8140   1736.0    8365  1736.0     8720  1733.0     9738
GR1732.4     9900   1723.6        9945   1723.1    9987  1723.0     9996  1723.0    10003
GR1723.5    10003   1724.8       10040   1727.3   10053  1729.7    10080  1730.8    10095
GR1732.5    10180   1733.6       10247   1734.5   10350  1729.5    10363  1730.1    10427
GR1733.8    10440   1733.7       10515   1731.0   10528  1731.2    10616  1730.2    10628
GR1731.5    10655   1733.9       10661   1732.0   10860  1732.0    12915  1736.0    13980
GR1738.0    14920
VH      5    0.045     3880      0.130     8050   0.050     9935   0.045    10132   0.100
VH  15890
X1   4.42       27     9935      10132      992      992      992
X3                                 9731   1739.7   10236  1738.0
GR1748.0     2045   1744.0        2335   1740.0    3060  1740.0     3515  1736.0     3675
GR1736.0     3880   1736.0        6460   1736.5    8050  1739.7     9731  1738.7     9794
GR1737.4     9813   1737.0        9935   1724.9    9956  1724.8    10010  1724.2    10052
GR1732.3    10072   1735.4       10095   1737.6   10132  1737.6    10179  1738.0    10236
GR1736.0    10750   1735.6       11580   1736.0   12365  1740.0    13440  1744.0    14870
GR1744.0    15500   1748.0       15890
EJ
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ER
EOF..
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   33
 2.23        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
 2.23        Centerline Station at 2506
 2.27        Centerline Station at 2219
2.284        Centerline Station at 2323
2.285        Centerline Station at 2323
2.301        **** Vegas Valley Drive (NB) ****
2.301        2* Debris Loading
2.301        Centerline Station at 2323
2.302        Centerline Station at 2323
 2.31        Centerline Station at 2240
 2.33        Centerline Station at 2240
 2.54        Centerline Station at 2872
 2.79        Centerline Station at 3462
 3.04        Centerline Station at 10000
3.256        Centerline Station at 10000
3.262        Centerline Station at 10000
3.274        **** Winterwood Golf Course Bridge #1**
3.274        2* Debris Loading
3.274        Single cross section normal bridge
3.274        Centerline Station at 10000
 3.28        Centerline Station at 10000
 3.47        Centerline Station at 10000
 3.49        Centerline Station at 10000
3.506        **** Winterwood Golf Course Bridge #2**
3.506        2* Debris Loading
3.506        Single cross section normal bridge
3.506        Centerline Station at 10000
 3.51        Centerline Station at 10000
 3.69        Centerline Station at 10000
 3.86        Centerline Station at 10000
 4.04        Centerline Station at 10000
 4.23        Centerline Station at 10000
 4.42        Centerline Station at 10000
T1           CORFCD/COE OVERFLOW STUDY
T2           JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3           LAS VEGAS WASH - 50-YEAR (d/s Reach)
J1                2                                                0.5          1697.1
J2     -1                -1
J3    150
NC  0.030     0.10    0.035      0.1      0.3
QT        1   14000
ET              3.1      900     3092
X1   2.23        38     2456     2740
GR1716.0         900  1712.0     1110   1708.0     1250   1704.0     1450   1700.0     1605
GR1696.0        1885  1692.0     1910   1592.0     1935   1693.7     2000   1694.4     2187
GR1694.5        2353  1694.2     2420   1592.9     2429   1696.0     2456   1692.6     2482
GR1692.6        2494  1688.2     2506   1689.3     2552   1689.8     2560   1689.7     2606
GR1689.7        2528  1690.3     2646   1592.1     2660   1691.2     2689   1691.5     2701
GR1694.0        2740  1692.3     3010   1690.2     3022   1692.7     3056   1702.3     3092
GR1700.0        3120  1696.0     3130   1696.1     3980   1700.0     3985   1701.7     4020
GR1700.0        4060  1700.0     5800   1704.0     7440
NC   0.03     0.06    0.030
ET              3.1         1     2930
X1   2.27        38     2155     2345      220      150      203
GR1716.0         1  1712.9        35   1708.0      225   1704.0      880   1700.0     1085
GR1700.0        1200  1696.0     1350   1696.0     1500   1695.5     2000   1695.5     2032
GR1694.5        2093  1693.9     2120   1696.3     2142   1695.3     2155   1693.4     2165
GR1689.7        2175  1689.7     2210   1588.5     2219   1689.9     2252   1690.1     2277
GR1693.1        2297  1693.1     2337   1693.5     2345   1694.1     2385   1694.7     2405
GR1694.8        2550  1696.5     2600   1693.0     2760   1704.0     2930   1700.0     2945
GR1696.0        2955  1696.0     3670   1700.0     3680   1700.0     5025   1704.0     7140
GR1708.0        7380  1708.0     7590   1710.0     9105
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VC                    0.3       0.5
ET          3.1         1      3032
X1  2.284    25      2250      2395       100       100       100
GR1716.0    100    1712.0       120    1708.0       260    1704.0       950    1700.0      1160
GR1700.0   1330    1696.0      1450    1695.0      2000    1695.0      2250    1686.8      2252
GR1686.8   2394    1695.0      2395    1696.0      2655    1696.5      2692    1693.0      2852
GR1704.0   3032    1700.0      3050    1696.0      3060    1696.0      3685    1700.0      3695
GR1700.0   5070    1704.0      7185    1708.0      7470    1708.0      7690    1710.0      9230
X1  2.285    63      2248      2397         1         1         1
X2                                                                                        15
X3                                                3832    1704.0
BT      6   2000    1695.0    1695.0      2248    1695.0    1695.0    2249.9    1696.3    1686.8
BT2396.1 1696.3    1686.8      2397    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0    100    1712.0       120    1708.0       260    1704.0       950    1700.0      1160
GR1700.0   1330    1696.0      1450    1695.0      2000    1695.0      2248    1692.3    2249.8
GR1686.8 2249.9    1686.8    2263.8    1692.3    2263.9    1692.3    2264.5    1686.8    2264.6
GR1686.8 2278.5    1692.3    2278.6    1692.3    2279.2    1686.8    2279.3    1686.8    2293.2
GR1692.3 2293.3    1692.3    2293.9    1686.8    2294.0    1686.8    2307.9    1692.3    2308.0
GR1692.3 2308.6    1686.8    2308.7    1686.8    2322.6    1692.3    2322.7    1692.3    2323.3
GR1686.8 2323.4    1686.8    2337.3    1692.3    2337.4    1692.3    2338.0    1686.8    2338.1
GR1686.8 2352.0    1692.3    2352.1    1692.3    2352.7    1686.8    2352.8    1686.8    2366.7
GR1692.3 2366.8    1692.3    2367.4    1686.8    2367.5    1686.8    2381.4    1692.3    2381.5
GR1692.3 2382.1    1686.8    2382.2    1686.8    2396.1    1692.3    2396.2    1695.0      2397
GR1696.0    2655    1696.5      2692    1693.0      2852    1704.0      3032    1700.0      3050
GR1696.0    3060    1696.0      3685    1700.0      3695    1700.0      5070    1704.0      7185
GR1708.0    7470    1708.0      7690    1710.0      9230
X1  2.301    63      2250      2395        87        87        87
X2                                                                                        15
X3                                                3032    1704.0
BT      6   2000    1695.0    1695.0      2250    1695.0    1695.0    2251.9    1696.3    1686.8
BT2394.1 1593.1    1686.8      2395    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0    100    1712.0       120    1708.0       260    1704.0       950    1700.0      1160
GR1700.0   1330    1696.0      1450    1695.0      2000    1695.0      2250    1692.3    2251.8
GR1686.8 2251.9    1686.8    2261.8    1692.3    2261.9    1692.3    2266.5    1686.8    2266.6
GR1686.8 2276.5    1692.3    2276.6    1692.3    2281.2    1686.8    2281.3    1686.8    2291.2
GR1692.3 2291.3    1692.3    2295.9    1686.8    2296.0    1686.8    2305.9    1692.3    2306.0
GR1692.3 2310.6    1686.8    2310.7    1686.8    2320.6    1692.3    2320.7    1692.3    2325.3
GR1686.8 2325.4    1686.8    2335.3    1692.3    2335.4    1692.3    2340.0    1686.8    2340.1
GR1686.8 2350.0    1692.3    2350.1    1692.3    2354.7    1686.8    2354.8    1686.8    2364.7
GR1692.3 2364.8    1692.3    2369.4    1686.8    2369.5    1686.8    2379.4    1692.3    2379.5
GR1692.3 2384.1    1686.8    2384.2    1686.8    2394.1    1692.3    2394.2    1695.0      2395
GR1696.0    2655    1696.5      2692    1693.0      2852    1704.0      3032    1700.0      3050
GR1696.0    3060    1696.0      3685    1700.0      3695    1700.0      5070    1704.0      7185
GR1708.0    7470    1708.0      7690    1710.0      9230
ET          3.1       100      3032
X1  2.302    25      2250      2395         1         1         1
GR1716.0    100    1712.0       120    1708.0       260    1704.0       950    1700.0      1160
GR1700.0   1330    1696.0      1450    1695.0      2000    1695.0      2250    1686.8      2252
GR1686.8   2394    1695.0      2395    1696.0      2655    1696.5      2692    1693.0      2852
GR1704.0   3032    1700.0      3050    1696.0      3060    1696.0      3685    1700.0      3695
GR1700.0   5070    1704.0      7185    1708.0      7470    1708.0      7690    1710.0      9230
ET          3.1      1930      2995
X1   2.31    44      2181      2420        50        50        50
GR1716.0    250    1712.0       270    1708.0       430    1704.0       790    1700.0      1000
GR1696.0   1410    1696.0      1505    1700.0      1515    1700.0      1620    1704.0      1670
GR1704.0   1930    1700.0      1940    1696.7      2000    1696.7      2032    1694.9      2102
GR1694.9   2154    1696.6      2172    1698.0      2181    1694.2      2198    1690.1      2208
GR1690.1   2223    1689.0      2229    1689.0      2251    1690.8      2279    1693.7      2300
GR1691.1   2364    1693.1      2388    1694.2      2420    1695.4      2443    1695.4      2564
GR1696.5   2600    1696.0      2760    1696.0      2955    1700.0      2965    1704.0      2995
GR1700.0   3005    1696.0      3180    1696.0      3585    1700.0      3595    1700.0      4990
GR1704.0   6950    1708.0      7350    1708.0      7580    1710.0      9120
NC  0.045  0.035     0.03       0.1       0.3
QT        1  14000
ET          3.1      1930      2995
X1   2.33                                125        95       110
NC   0.06    0.05      0.03
ET          3.1       705      3045
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K1  2.54          36      2727      2917      1201       900      1116
GR1712.0         705    1708.0       706    1704.0       785    1700.0      1045    1700.0      1615
GR1700.0        1915    1698.0      2100    1697.8      2578    1697.7      2690    1698.2      2703
GR1695.2        2710    1695.2      2727    1691.3      2744    1691.8      2793    1691.4      2843
GR1690.0        2872    1691.0      2856    1695.3      2917    1701.4      3025    1702.4      3045
GR1701.8        3121    1701.8      3181    1700.5      3239    1700.6      3326    1699.1      3365
GR1697.7        3430    1696.9      3499    1696.8      3561    1696.8      3577    1701.0      3670
GR1700.0        3720    1700.0      5079    1704.0      7190    1708.0      7640    1708.0      7875
GR1710.0        8640
K1  2.78          34      3417      3503       950       900      1240
K3                                  3417    1705.2      3671    1703.5
GR1712.0           0    1708.0       305    1704.0       885    1704.0      2120    1704.0      2260
GR1704.0        2450    1704.0      3380    1705.2      3417    1705.2      3417    1705.2      3417
GR1705.2        3417    1693.6      3427    1691.9      3431    1691.3      3434    1691.3      3449
GR1690.9        3451    1690.9      3473    1691.6      3496    1702.7      3503    1703.5      3671
GR1702.6        3704    1701.9      3718    1701.9      3726    1701.9      3742    1703.0      3748
GR1702.8        3778    1702.5      4003    1701.5      4234    1702.5      4359    1703.5      4460
GR1702.5        5070    1704.0      5640    1708.0      7010    1710.0      7630
NH       5     0.045      9918     0.050     10138     0.045     10362     0.130     12103      0.04
NH  13578
K1  3.04          36      9918     10138       600      1450      1380
K3                                  9798    1714.1     10309    1712.0
GR1716.0        5153    1712.0      5553    1708.0      6393    1704.0      7208    1704.0      7323
GR1704.0        7453    1708.0      7573    1708.0      9473    1712.0      9713    1714.1      9798
GR1713.5        9885    1709.3      9918    1708.3      9954    1704.6      9969    1697.0      9987
GR1697.0        9993    1697.0     10012    1699.1     10033    1695.8     10057    1696.0     10067
GR1698.5       10069    1698.0     10076    1696.8     10079    1696.8     10093    1702.8     10108
GR1709.5       10138    1709.7     10173    1708.4     10188    1708.4     10253    1708.4     10268
GR1712.0       10309    1711.9     10335    1711.1     10362    1709.3     10860    1712.0     12103
GR1716.0       13578
NC 0.045      0.045       0.05
ET               3.1      9824     10273
K1  3.256          32      9863     10103       800      1250      1144
GR1728.0        3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0        6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8        9673    1712.4      9783    1714.9      9824    1714.3      9863    1710.1      9907
GR1707.7        9983    1706.8      9995    1706.8     10013    1708.4     10027    1709.9     10066
GR1714.7       10103    1716.1     10159    1716.8     10273    1716.0     10326    1712.0     10545
GR1708.0       10575    1708.0     10655    1712.0     10695    1716.0     11745    1720.0     13155
GR1724.0       13440    1728.0     14900
ET               3.1      9824     10273
K1  3.262                                      30        30        30
NC                                   0.3       0.5
ET               7.1                                             9824     10273
K1  3.274          53      9900     10100     58.25     68.25     63.25
K2                                                                            15
BT       2       9900    1714.0    1713.0     10100    1714.0    1713.0
GR1728.0        3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0        6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8        9673    1712.4      9783    1714.9      9824    1714.3      9863    1712.0      9880
GR1714.0        9900    1710.0    9923.1    1713.0    9923.2    1713.0    9928.1    1710.0    9928.2
GR1709.0      9949.0    1713.0    9949.1    1713.0    9954.0    1709.0    9954.1    1708.0    9975.0
GR1713.0      9975.1    1713.0    9980.0    1708.0    9980.1    1708.0   10020.0    1713.0   10020.1
GR1713.0     10025.0    1708.0   10025.1    1709.0   10046.0    1713.0   10046.1    1713.0   10051.0
GR1709.0     10051.1    1710.0   10072.0    1713.0   10072.1    1713.0   10077.0    1710.0   10077.1
GR1714.0       10100    1712.0     10120    1716.1     10159    1716.8     10273    1716.0     10326
GR1712.0       10545    1708.0     10575    1708.0     10655    1712.0     10695    1716.0     11745
GR1720.0       13155    1724.0     13440    1728.0     14900
ET               7.1                                             9824     10273
K1  3.28           32      9863     10103     43.25     53.25     43.25
GR1728.0        3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0        6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8        9673    1712.4      9783    1714.9      9824    1714.3      9863    1710.1      9907
GR1708.0        9933    1708.0      9995    1708.0     10013    1708.4     10027    1709.9     10066
GR1714.7       10103    1716.1     10159    1716.8     10273    1716.0     10326    1712.0     10545
GR1708.0       10575    1708.0     10655    1712.0     10695    1716.0     11745    1720.0     13155
GR1724.0       13440    1728.0     14900
NC                                   0.1       0.3
```

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NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168    0.13
NH   13430    0.040     15535
ET             7.1                                            9552    10218
X1    3.47       31      9942    10056       620     1000      976
GR1732.0       3280    1728.0     3300    1724.0     3320    1724.0     4225    1724.0     4570
GR1720.0       4740    1716.0     5010    1712.0     6840    1712.0     6970    1716.0     9480
GR1717.5       9552    1717.4     9650    1717.2     9717    1716.8     9830    1715.1     9886
GR1716.7       9914    1716.5     9942    1709.3    10000    1710.7    10017    1711.6    10056
GR1713.4      10076    1718.9    10168    1720.1    10218    1716.7    10299    1717.0    10655
GR1720.0      10955    1720.0    11970    1724.0    12885    1728.0    13430    1728.0    14405
GR1732.0      15535
ET             7.1                                            9552    10218
X1    3.49                                 120       120      120
NC                                  0.3      0.5
NH       6    0.045      9552    0.028      9952    0.023     10048    0.028     10168    0.13
NH   13430    0.040     15535
ET             7.1                                            9610    10218
X1   3.506       40      9952    10048        84        84       84
X2                                                                                      15
BT       2    9952    1718.0    1716.0    10048    1718.0    1716.0
GR1732.0       3280    1728.0     3300    1724.0     3320    1724.0     4225    1724.0     4570
GR1720.0       4740    1716.0     5010    1712.0     6840    1712.0     6970    1716.0     9480
GR1717.5       9552    1720.0     9610    1717.4     9650    1717.2     9717    1716.8     9830
GR1715.1       9886    1716.7     9914    1718.0     9952    1712.2   9952.1    1712.2   9986.9
GR1716.0     9987.0    1716.0   9992.4    1712.2   9992.5    1712.2  10007.3    1716.0  10007.4
GR1716.0   10012.9     1712.2   10013.0   1712.2   10047.9   1718.0    10048    1713.4    10076
GR1718.9      10158    1720.1    10218    1716.7    10299    1717.0    10655    1720.0    10955
GR1720.0      11970    1724.0    12885    1728.0    13430    1728.0    14405    1732.0    15535
NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168    0.13
NH   13430    0.040     15535
ET             7.1                                            9610    10218
X1    3.51       32      9942    10056        44        44       44
GR1732.0       3280    1728.0     3300    1724.0     3320    1724.0     4225    1724.0     4570
GR1720.0       4740    1716.0     5010    1712.0     6840    1712.0     6970    1716.0     9480
GR1717.5       9552    1720.0     9610    1717.4     9650    1717.2     9717    1716.8     9830
GR1715.1       9886    1716.7     9914    1716.5     9942    1712.0    10000    1712.0    10017
GR1712.0      10056    1713.4    10076    1718.9    10168    1720.1    10218    1716.7    10299
GR1717.0      10655    1720.0    10955    1720.0    11970    1724.0    12885    1728.0    13430
GR1728.0      14405    1732.0    15535
NC                                  0.1      0.3
NH       5    0.045      9645    0.028      9897    0.023     10222    0.110     12895    0.045
NH   14765
K1    3.69       33      9897    10222       950       850       908
K3                       9681   1731.1    10222   1723.8
GR1732.0       3795    1728.0     3889    1724.0     3970    1724.0     4515    1720.0     5705
GR1716.0       6660    1716.0     6785    1720.0     7375    1720.0     8060    1721.7     8100
GR1720.0       8140    1720.0     9320    1724.0     9535    1728.6     9645    1731.1     9681
GR1721.4       9747    1720.7     9780    1720.1     9861    1720.3     9897    1715.4     9930
GR1716.8       9971    1715.2     9994    1715.2    10005    1715.4    10025    1715.4    10035
GR1719.0      10059    1723.8    10222    1720.4    10355    1724.0    10545    1724.0    12895
GR1728.0      13735    1728.0    14075    1732.0    14765
NH       7    0.045      6875    0.130      9105    0.028      9921    0.023     10111    0.028
NH   10364    0.110     12500    0.045     14640
ET             3.1      9828    10137
K1    3.86       50      9921    10111       950       880       908
GR1740.0       3430    1736.0     3685    1732.0     4030    1728.0     4505    1724.0     5940
GR1724.0       6075    1724.0     6875    1724.0     8840    1727.9     9185    1727.9     9177
GR1724.7       9184    1724.7     9203    1725.9     9230    1728.8     9255    1728.0     9326
GR1728.0       9410    1727.4     9426    1725.0     9448    1723.8     9544    1723.8     9613
GR1724.9       9619    1724.9     9624    1724.2     9629    1723.2     9637    1723.2     9653
GR1725.1       9656    1725.3     9725    1726.9     9762    1726.3     9828    1726.3     9875
GR1725.0       9921    1721.3     9941    1720.3     9994    1719.2     9997    1719.2    10002
GR1720.7      10034    1720.7    10038    1723.9    10078    1727.2    10111    1729.3    10137
GR1728.1      10165    1726.9    10221    1726.2    10283    1726.7    10364    1724.0    10960
GR1724.9      11920    1728.0    12509    1728.8    13260    1729.8    13910    1732.0    14648
NH       7    0.050      5160    0.130      9619    0.030      9913    0.028     10100    0.030
NH   10271    0.130     12400    0.045     14210
ET             3.1      9771    10271
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K1   4.04       58      9913     10100      1000       900       960
K2                                                                  15
GR1736.0      3440    1732.0      4645    1732.0      5160    1732.0      8340    1728.0      8740
GR1732.0      9435    1732.0      9585    1729.8      9619    1729.9      9650    1732.4      9672
GR1732.4      9771    1729.9      9784    1729.8      9827    1729.2      9913    1722.0      9949
GR1721.7      9994    1721.0      9997    1721.0     10003    1722.5     10015    1722.1     10047
GR1727.4     10079    1730.9     10100    1731.8     10113    1732.0     10136    1731.5     10172
GR1730.1     10196    1730.5     10232    1731.2     10271    1731.2     10317    1726.6     10333
GR1726.5     10399    1731.5     10413    1731.5     10442    1728.0     10890    1728.0     12400
GR1732.0     13450    1732.0     13980    1736.0     14210
NH       9   0.045      4310     0.130      7565     0.040      8365     0.130      8720     0.030
NH    9900   0.028     10100      0.03     10247     0.130     12915     0.100     14920
ET             3.1      8720     10350
K1   4.23        36      9900     10247      1100        950       1020
GR1740.0      3570    1736.0      3850    1736.0      4310    1736.0      6095    1732.0      7375
GR1732.0      7565    1736.0      8140    1736.0      8365    1736.0      8720    1733.0      9738
GR1732.4      9900    1723.6      9945    1723.1      9987    1723.0      9996    1723.0     10003
GR1723.5     10003    1724.8     10040    1727.3     10053    1729.7     10080    1730.8     10095
GR1732.5     10130    1733.6     10247    1734.5     10350    1729.5     10363    1730.1     10427
GR1733.8     10440    1733.7     10515    1731.0     10528    1731.2     10616    1730.2     10628
GR1731.5     10655    1733.9     10661    1732.0     10860    1732.0     12915    1736.0     13980
GR1738.0     14920
NH       5   0.045      3880     0.130      8050     0.050      9935     0.045     10132     0.100
NH   15890
K1   4.42        27      9935     10132       992        992       992
K3                                 9731    1739.7     10236    1738.0
GR1748.0      2045    1744.0      2335    1740.0      3860    1740.0      3515    1736.0      3675
GR1736.0      3880    1736.0      6450    1736.5      8050    1739.7      9731    1739.7      9794
GR1737.4      9813    1737.0      9935    1724.9      9956    1724.8     10000    1724.2     10052
GR1732.3     10072    1735.4     10095    1737.5     10132    1737.6     10179    1738.0     10236
GR1736.0     10750    1735.6     11580    1736.0     12365    1740.0     13440    1744.0     14870
GR1744.0     15500    1748.0     15890
EJ


ER
EOF..
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      33
    2.23        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    2.23        Centerline Station at 2506
    2.27        Centerline Station at 2219
   2.284        Centerline Station at 2323
   2.285        Centerline Station at 2323
   2.301        **** Vegas Valley Drive (NB) ****
   2.301        2* Debris Loading
   2.301        Centerline Station at 2323
   2.302        Centerline Station at 2323
    2.31        Centerline Station at 2240
    2.33        Centerline Station at 2240
    2.54        Centerline Station at 2872
    2.78        Centerline Station at 3462
    3.04        Centerline Station at 10000
   3.256        Centerline Station at 10000
   3.262        Centerline Station at 10000
   3.274        **** Winterwood Golf Course Bridge #1**
   3.274        2* Debris Loading
   3.274        Single cross section normal bridge
   3.274        Centerline Station at 10000
    3.28        Centerline Station at 10000
    3.47        Centerline Station at 10000
    3.49        Centerline Station at 10000
   3.506        **** Winterwood Golf Course Bridge #2**
   3.506        2* Debris Loading
   3.506        Single cross section normal bridge
   3.506        Centerline Station at 10000
    3.51        Centerline Station at 10000
    3.69        Centerline Station at 10000
    3.86        Centerline Station at 10000
    4.04        Centerline Station at 10000
    4.23        Centerline Station at 10000
    4.42        Centerline Station at 10000
T1              CORECD/COE OVERFLOW STUDY
T2              JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3              LAS VEGAS WASH - 100-YEAR (d/s Reach)
J1                    2                                    0.5          1698.8
J2          1                -1
J3        150
NC    0.030       0.10     0.035       0.1       0.3
NT            2  24000     84000
ET                 7.1                                     900     3092
X1     2.23          38      2456      2740
GR1716.0           900    1712.0    1110    1708.0    1250    1704.0    1450    1700.0    1605
GR1696.0          1885    1692.0    1910    1692.0    1935    1693.7    2000    1694.4    2187
GR1694.5          2353    1694.2    2420    1692.9    2429    1696.0    2456    1692.6    2482
GR1692.6          2494    1688.2    2506    1689.3    2552    1689.8    2560    1689.7    2606
GR1689.7          2628    1690.3    2646    1692.1    2660    1691.2    2689    1691.5    2701
GR1694.0          2740    1692.3    3010    1690.2    3022    1692.7    3056    1702.3    3092
GR1700.0          3120    1696.0    3130    1696.0    3980    1700.0    3985    1701.7    4020
GR1700.0          4060    1700.0    5800    1704.0    7440
NC    0.03        0.06     0.030
ET                 7.1                                            2930
X1     2.27          38      2155      2345       220       150       203
GR1716.0             1    1712.0        35    1708.0       225    1704.0       880    1700.0    1085
GR1700.0          1200    1696.0    1350    1696.0    1500    1695.5    2000    1695.5    2032
GR1694.5          2093    1693.9    2120    1696.3    2142    1695.3    2155    1693.4    2165
GR1689.7          2175    1689.7    2210    1688.5    2219    1689.9    2252    1690.1    2277
GR1693.1          2297    1693.1    2337    1693.5    2345    1694.1    2385    1694.7    2405
GR1694.8          2550    1696.5    2600    1693.0    2760    1704.0    2930    1700.0    2945
GR1696.0          2955    1696.0    3670    1700.0    3680    1700.0    5025    1704.0    7140
GR1708.0          7380    1708.0    7550    1710.0    9105
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NC                    0.3       0.5
ET          7.1                                       3032
X1  2.284     25      2250      2395       100        100       100
GR1716.0     100   1712.0       120    1708.0        260    1704.0       950    1700.0      1160
GR1700.0    1330   1696.0      1450    1695.0       2000    1695.0      2250    1686.8      2252
GR1686.8    2394   1695.0      2395    1696.0       2655    1696.5      2692    1693.0      2852
GR1704.0    3032   1700.0      3050    1696.0       3060    1696.0      3685    1700.0      3695
GR1700.0    5070   1704.0      7185    1708.0       7470    1708.0      7690    1710.0      9230
ET          7.1                                       3032
X1  2.285     53      2248      2397         1          1         1
X2                                                                                          15
BT          6     2000   1695.0    1695.0      2248   1695.0    1695.0    2249.9    1696.3    1686.8
BT2396.1      1696.3    1686.8      2397    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0     100   1712.0       120    1708.0        260    1704.0       950    1700.0      1160
GR1700.0    1330   1696.0      1450    1695.0       2000    1695.0      2248    1692.3    2249.8
GR1686.8    2249.9    1686.8    2263.8    1692.3    2263.9    1692.3    2264.5    1686.8    2264.6
GR1686.8    2278.5    1692.3    2278.6    1692.3    2279.2    1686.8    2279.3    1686.8    2293.2
GR1692.3    2293.3    1692.3    2293.9    1686.8    2294.0    1686.8    2307.9    1692.3    2308.0
GR1692.3    2308.6    1686.8    2308.7    1686.8    2322.6    1692.3    2322.7    1692.3    2323.3
GR1686.8    2323.4    1686.8    2337.3    1692.3    2337.4    1692.3    2338.0    1686.8    2338.1
GR1686.8    2352.0    1692.3    2352.1    1692.3    2352.7    1686.8    2352.8    1686.8    2366.7
GR1692.3    2366.8    1692.3    2367.4    1686.8    2367.5    1686.8    2381.4    1692.3    2381.5
GR1692.3    2382.1    1686.8    2382.2    1686.8    2396.1    1692.3    2396.2    1695.0      2397
GR1696.0     2655   1696.5       2692    1693.0       2852    1704.0      3032    1700.0      3050
GR1696.0     3060   1696.0       3685    1700.0       3695    1700.0      5070    1704.0      7185
GR1708.0     7470   1708.0       7690    1710.0       9230
ET          7.1                                       3032
X1  2.301     53      2250      2395         87        87        87
X2                                                                                          15
BT          6     2000   1695.0    1695.0      2250   1695.0    1695.0    2251.9    1696.3    1686.8
BT2394.1      1693.1    1686.8      2395    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0     100   1712.0       120    1708.0        260    1704.0       950    1700.0      1160
GR1700.0    1330   1696.0      1450    1695.0       2000    1695.0      2250    1692.3    2251.8
GR1686.8    2251.9    1686.8    2261.8    1692.3    2261.9    1692.3    2266.5    1686.8    2266.6
GR1686.8    2276.5    1692.3    2276.6    1692.3    2281.2    1686.8    2281.3    1686.8    2291.2
GR1692.3    2291.3    1692.3    2295.9    1686.8    2296.0    1686.8    2305.9    1692.3    2306.0
GR1692.3    2310.6    1686.8    2310.7    1686.8    2320.6    1692.3    2320.7    1692.3    2325.3
GR1686.8    2325.4    1686.8    2335.3    1692.3    2335.4    1692.3    2340.0    1686.8    2340.1
GR1686.8    2350.0    1692.3    2350.1    1692.3    2354.7    1686.8    2354.8    1686.8    2364.7
GR1692.3    2364.8    1692.3    2369.4    1686.8    2369.5    1686.8    2379.4    1692.3    2379.5
GR1692.3    2394.1    1686.8    2394.2    1686.8    2394.1    1692.3    2394.2    1695.0      2395
GR1696.0     2655   1696.5       2692    1693.0       2852    1704.0      3032    1700.0      3050
GR1696.0     3060   1696.0       3685    1700.0       3695    1700.0      5070    1704.0      7185
GR1708.0     7470   1708.0       7690    1710.0       9230
ET          7.1                                       3032
X1  2.302     25      2250      2395         1          1         1
GR1716.0     100   1712.0       120    1708.0        260    1704.0       950    1700.0      1160
GR1700.0    1330   1696.0      1450    1695.0       2000    1695.0      2250    1686.8      2252
GR1685.8    2394   1695.0      2395    1696.0       2655    1696.5      2692    1693.0      2852
GR1704.0    3032   1700.0      3050    1696.0       3060    1696.0      3685    1700.0      3695
GR1700.0    5070   1704.0      7185    1708.0       7470    1708.0      7690    1710.0      9230
ET          7.1                                       2995
X1   2.31     44      2181      2420         50        50        50
GR1716.0     250   1712.0       270    1708.0        430    1704.0       790    1700.0      1000
GR1696.0    1410   1696.0      1505    1700.0       1515    1700.0      1620    1704.0      1670
GR1704.0    1930   1700.0      1940    1696.7       2000    1696.7      2032    1694.9      2102
GR1694.9    2154   1696.5      2172    1698.0       2181    1694.2      2198    1690.1      2208
GR1690.1    2223   1689.0      2229    1689.0       2251    1690.8      2279    1693.7      2300
GR1691.1    2364   1693.1      2388    1694.2       2420    1695.4      2443    1695.4      2564
GR1696.5    2600   1696.0      2760    1696.0       2955    1700.0      2965    1704.0      2995
GR1700.0    3005   1696.0      3180    1696.0       3585    1700.0      3595    1700.0      4990
GR1704.0    6950   1708.0      7350    1708.0       7580    1710.0      9120
NC  0.045  0.035     0.03       0.1       0.3
QT          2    24000     94000
ET          7.1                                       2995
X1   2.33                                125        95       110
NC   0.06    0.05     0.03
ET          7.1                                       3045
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X1   2.54        56      2727      2917      1200       900      1116
GR1712.0        705    1708.0       706    1704.0       795    1700.0      1045    1700.0      1615
GR1700.0       1815    1698.0      2100    1697.8      2578    1697.7      2690    1698.2      2703
GR1695.2       2710    1695.2      2727    1691.0      2744    1691.8      2793    1691.4      2843
GR1690.0       2872    1691.0      2856    1695.3      2917    1701.4      3025    1702.4      3045
GR1701.8       3121    1701.8      3191    1700.6      3239    1700.6      3326    1699.1      3365
GR1697.7       3430    1696.9      3499    1696.8      3561    1696.8      3577    1701.0      3670
GR1700.0       3720    1700.0      5070    1704.0      7190    1708.0      7640    1708.0      7875
GR1710.0       8640
ET                7.1                                                                3671
X1   2.78        34      3417      3503       950       900      1240
K2                                                                                      15
GR1712.0          0    1708.0       305    1704.0       885    1704.0      2120    1704.0      2260
GR1704.0       2450    1704.0      3380    1705.2      3417    1705.2      3417    1705.2      3417
GR1705.2       3417    1693.6      3427    1691.9      3431    1691.3      3434    1691.3      3449
GR1690.9       3451    1690.9      3473    1691.6      3496    1702.7      3503    1703.5      3671
GR1702.6       3704    1701.9      3718    1701.9      3726    1701.9      3742    1703.0      3748
GR1702.8       3778    1702.5      4003    1701.5      4234    1702.5      4359    1703.5      4460
GR1702.5       5070    1704.0      5640    1708.0      7010    1710.0      7630
NH       5    0.045      9918    0.050     10138    0.045     10362    0.130      12103    0.04
NH   13578
ET                7.1                                                               10173
X1   3.04        36      9918     10138       600      1450      1380
K2                                                                                      15
GR1716.0       5153    1712.0      5553    1708.0      6393    1704.0      7208    1704.0      7323
GR1704.0       7453    1708.0      7573    1708.0      9473    1712.0      9713    1714.1      9798
GR1713.5       9885    1709.3      9918    1708.3      9954    1704.6      9969    1697.0      9987
GR1697.0       9993    1697.0     10012    1699.1     10033    1695.8     10057    1696.9     10067
GR1698.5      10069    1698.0     10076    1696.8     10079    1696.8     10093    1702.8     10108
GR1709.5      10138    1709.7     10173    1708.4     10188    1708.4     10253    1708.4     10268
GR1712.0      10309    1711.9     10335    1711.1     10362    1709.3     10860    1712.0     12103
GR1716.0      13578
MC 0.045      0.045     0.05
X1  3.256        32      9863     10103       800      1250      1144
K2                                                                                      15
GR1728.0       3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0       6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8       9673    1712.4      9783    1714.9      9824    1714.3      9863    1710.1      9907
GR1707.7       9983    1706.8      9995    1706.8     10013    1708.4     10027    1709.9     10066
GR1714.7      10103    1716.1     10159    1716.8     10273    1716.0     10326    1712.0     10545
GR1708.0      10575    1708.0     10655    1712.0     10695    1716.0     11745    1720.0     13155
GR1724.0      13440    1728.0     14900
X1  3.262                                      30         30         30
MC                                0.3        0.5
X1  3.274        53      9900     10100     58.25      68.25      63.25
K2                                                                                      15
X3       10                                                                1712       1712
BT        2      9900    1714.0    1713.0     10100    1714.0     1713.0
GR1728.0       3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0       6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8       9673    1712.4      9783    1714.9      9824    1714.3      9863    1712.0      9680
GR1714.0       9900    1710.0    9923.1    1713.0    9923.2    1713.0    9928.1    1710.0    9928.2
GR1709.0     9949.0    1713.0    9949.1    1713.0    9954.0    1709.0    9954.1    1708.0    9975.0
GR1713.0     9975.1    1713.0    9980.0    1708.0    9980.1    1708.0   10020.0    1713.0   10020.1
GR1713.0    10025.0    1708.0   10025.1    1709.0   10046.0    1713.0   10046.1    1713.0   10051.0
GR1709.0    10051.1    1710.0   10072.0    1713.0   10072.1    1713.0   10077.0    1710.0   10077.1
GR1714.0      10100    1712.0     10120    1716.1     10159    1716.8     10273    1716.0     10326
GR1712.0      10545    1708.0     10575    1708.0     10655    1712.0     10695    1716.0     11745
GR1720.0      13155    1724.0     13440    1728.0     14900
X1   3.28        32      9863     10103     43.25      53.25      43.25
GR1728.0       3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0       6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8       9673    1712.4      9783    1714.9      9824    1714.3      9853    1710.1      9907
GR1707.7       9983    1706.8      9995    1706.8     10013    1708.4     10027    1709.9     10066
GR1714.7      10103    1716.1     10159    1716.8     10273    1716.0     10326    1712.0     10545
GR1708.0      10575    1708.0     10655    1712.0     10695    1716.0     11745    1720.0     13155
GR1724.0      13440    1728.0     14900
NC                                0.1        0.3
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NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168    0.13
NH   13430    0.040     15535
K1    3.47       31      9942    10056        620     1000        976
K2                                                                              15
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1717.4     9650   1717.2     9717   1716.8     9830   1715.1     9886
GR1716.7     9914   1716.5     9942   1709.8    10000   1710.7    10017   1711.6    10056
GR1713.4    10076   1718.9    10168   1720.1    10218   1716.7    10299   1717.0    10655
GR1720.0    10955   1720.0    11970   1724.0    12885   1728.0    13430   1728.0    14405
GR1732.0    15535
K1    3.49                                 120      120      120
NC                        0.3      0.5
NH       6    0.045      9552    0.028      9952    0.023     10048    0.028     10168    0.13
NH   13430    0.040     15535
K1   3.506       39      9952    10048         84       84       84
K2                                                                              15
K3       10                                                1716.7   1713.4
BT        2      9952   1718.0   1716.0    10048   1719.0   1716.0
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1717.4     9650   1717.2     9717   1716.8     9830   1715.1     9886
GR1716.7     9914   1718.0     9952   1712.2   9952.1   1712.2   9986.9   1716.0   9987.0
GR1716.0   9992.4   1712.2   9992.5   1712.2  10007.3   1716.0  10007.4   1716.0  10012.9
GR1712.2  10013.0   1712.2  10047.9   1718.0    10048   1713.4    10076   1718.9    10168
GR1720.1    10218   1716.7    10299   1717.0    10655   1720.0    10955   1720.0    11970
GR1724.0    12885   1728.0    13430   1728.0    14405   1732.0    15535
NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168    0.13
NH   13430    0.040     15535
X1    3.51       31      9942    10056         44       44       44
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1717.4     9650   1717.2     9717   1716.8     9830   1715.1     9886
GR1716.7     9914   1716.5     9942   1709.8    10000   1710.7    10017   1711.6    10056
GR1713.4    10076   1718.9    10168   1720.1    10218   1716.7    10299   1717.0    10655
GR1720.0    10955   1720.0    11970   1724.0    12885   1728.0    13430   1728.0    14405
GR1732.0    15535
NC                        0.1      0.3
NH       5    0.045      9645    0.028      9897    0.023     10222    0.110     12895    0.045
NH   14765
K1    3.69       33      9897    10222        950      950      908
K2                                                                              15
GR1732.0     3795   1728.0     3880   1724.0     3970   1724.0     4515   1720.0     5705
GR1716.0     6660   1716.0     6785   1720.0     7375   1720.0     8060   1721.7     8100
GR1720.0     8140   1720.0     9320   1724.0     9535   1728.6     9645   1731.1     9681
GR1721.4     9747   1720.7     9780   1720.1     9861   1720.3     9897   1715.4     9930
GR1716.8     9971   1715.2     9954   1715.2    10005   1715.4    10025   1715.4    10035
GR1719.0    10059   1723.8    10222   1720.4    10355   1724.0    10545   1724.0    12895
GR1728.0    13735   1728.0    14075   1732.0    14765
NH       7    0.045      6875    0.130      9105    0.028      9921    0.023     10111    0.028
NH   10364    0.110     12500    0.045     14640
K1    3.86       50      9921    10111        950      880      908
K2                                                                              15
GR1740.0     3430   1736.0     3685   1732.0     4030   1728.0     4505   1724.0     5940
GR1724.0     6875   1724.0     6875   1724.0     8840   1727.9     9105   1727.9     9177
GR1724.7     9134   1724.7     9203   1725.9     9230   1728.8     9255   1728.0     9326
GR1728.0     9410   1727.4     9426   1725.0     9448   1723.8     9544   1723.8     9613
GR1724.9     9619   1724.9     9624   1724.2     9629   1723.2     9637   1723.2     9653
GR1725.1     9656   1725.3     9725   1726.3     9762   1726.3     9828   1726.3     9875
GR1725.0     9921   1721.3     9941   1720.3     9994   1719.2     9997   1719.2    10002
GR1720.7    10004   1720.7    10038   1723.9    10078   1727.2    10111   1729.3    10137
GR1728.1    10165   1726.9    10221   1726.2    10283   1726.7    10364   1724.0    10960
GR1724.0    11920   1728.0    12500   1728.0    13260   1729.8    13910   1732.0    14640
NH       7    0.050      5160    0.130      9619    0.030      9913    0.028     10100    0.030
NH   10271    0.130     12480    0.045     14210
X1    4.04       38      9913    10100        1000      900      960
X2                                                                              15
GR1736.0     3440   1732.0     4945   1732.0     5160   1732.0     8340   1728.0     8740
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GR1732.0     9455    1732.0     9585    1729.8     9613    1729.9     9650    1732.4     9672
GR1732.4     9771    1729.9     9794    1729.9     9827    1729.2     9913    1722.0     9949
GR1721.7     9994    1721.0     9997    1721.0    10003    1722.5    10005    1722.1    10047
GR1727.4    10079    1730.9    10100    1731.8    10113    1732.0    10136    1731.5    10172
GR1730.1    10196    1730.5    10232    1731.2    10271    1731.2    10317    1726.6    10333
GR1726.6    10399    1731.5    10413    1731.5    10442    1728.0    10890    1728.0    12400
GR1732.0    13450    1732.0    13980    1736.0    14210
NH      9    0.045     4310     0.130     7565     0.040     8365     0.130     8720     0.030
NH   9900    0.028    10100      0.03    10247     0.130    12915     0.100    14520
X1   4.23       36     9900    10247     1109       950      1020
X2                                                                                        15
GR1740.0     3570    1736.0     3850    1736.0     4310    1736.0     6095    1732.0     7375
GR1732.0     7565    1736.0     8140    1736.0     8365    1736.0     8720    1733.0     9738
GR1732.4     9900    1723.6     9945    1723.1     9987    1723.0     9996    1723.0    10003
GR1723.5    10003    1724.8    10040    1727.3    10053    1729.7    10080    1730.8    10095
GR1732.5    10180    1733.6    10247    1734.5    10350    1729.5    10363    1730.1    10427
GR1733.8    10440    1733.7    10515    1731.0    10528    1731.2    10616    1730.2    10628
GR1731.5    10655    1733.9    10661    1732.0    10860    1732.0    12915    1736.0    13980
GR1738.0    14920
NH      5    0.045     3880     0.130     8050     0.050     9935     0.045    10132     0.100
NH  15890
X1   4.42       27     9935    10132      992       992       992
X2                                                                                        15
GR1748.0     2045    1744.0     2335    1740.0     3060    1740.0     3515    1736.0     3675
GR1736.0     3880    1736.0     6450    1736.5     8050    1739.7     8731    1738.7     9784
GR1737.4     9813    1737.0     9835    1724.9     9956    1724.8    10000    1724.2    10052
GR1732.3    10072    1735.4    10095    1737.6    10132    1737.6    10179    1738.0    10236
GR1736.0    10750    1735.6    11580    1736.0    12365    1740.0    13440    1744.0    14870
GR1744.0    15500    1748.0    15890
EJ
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR (d/s reach)
J1                3                                                 0.5          1702.2
J2     15                -1

ER
EOF..
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    33
  2.23      SECNO=River Mileage (above Advance Wastewater Treatment Plant)
  2.23      Centerline Station at 2506
  2.27      Centerline Station at 2219
 2.284      Centerline Station at 2323
 2.285      Centerline Station at 2323
 2.301      **** Vegas Valley Drive (NB) ****
 2.301      2* Debris Loading
 2.301      Centerline Station at 2323
 2.302      Centerline Station at 2323
  2.31      Centerline Station at 2240
  2.33      Centerline Station at 2240
  2.54      Centerline Station at 2872
  2.78      Centerline Station at 3462
  3.04      Centerline Station at 10000
 3.256      Centerline Station at 10000
 3.262      Centerline Station at 10000
 3.274      **** Winterwood Golf Course Bridge #1**
 3.274      2* Debris Loading
 3.274      Single cross section normal bridge
 3.274      Centerline Station at 10000
  3.28      Centerline Station at 10000
  3.47      Centerline Station at 10000
  3.49      Centerline Station at 10000
 3.506      **** Winterwood Golf Course Bridge #2**
 3.506      2* Debris Loading
 3.506      Single cross section normal bridge
 3.506      Centerline Station at 10000
  3.51      Centerline Station at 10000
  3.69      Centerline Station at 10000
  3.86      Centerline Station at 10000
  4.04      Centerline Station at 10000
  4.23      Centerline Station at 10000
  4.42      Centerline Station at 10000
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - NONIMAGING FLOWS (d/s Reach)
J1              2                                          0.5          1695.7
J2       1             -1
J3     150
NC 0.030     0.10    0.035      0.1      0.3
ET       3    2500     2700     3000
X1  2.23      38     2456     2740
GR1716.0     900   1712.0     1110   1708.0     1250   1704.0     1450   1700.0     1605
GR1696.0    1885   1692.0     1910   1692.0     1935   1693.7     2000   1694.4     2187
GR1694.5    2353   1694.2     2420   1692.9     2429   1696.0     2456   1692.6     2482
GR1692.6    2494   1688.2     2506   1689.3     2552   1689.8     2560   1689.7     2606
GR1689.7    2628   1690.3     2646   1692.1     2660   1691.2     2689   1691.5     2701
GR1694.0    2740   1692.3     3010   1690.2     3022   1692.7     3056   1702.3     3092
GR1700.0    3120   1696.0     3130   1696.0     3980   1700.0     3985   1701.7     4020
GR1700.0    4060   1700.0     5800   1704.0     7440
NC   0.03   0.06    0.030
X1  2.27      38     2155     2345      220      150      203
GR1716.0       1   1712.0       35   1708.0      225   1704.0      880   1700.0     1085
GR1700.0    1200   1696.0     1350   1696.0     1500   1695.5     2000   1695.5     2032
GR1694.5    2093   1693.9     2120   1696.3     2142   1695.3     2155   1693.4     2165
GR1689.7    2175   1689.7     2210   1688.5     2219   1689.9     2252   1690.1     2277
GR1693.1    2297   1693.1     2337   1693.5     2345   1694.1     2385   1694.7     2405
GR1694.8    2550   1696.5     2600   1693.0     2760   1704.0     2930   1700.0     2945
GR1696.0    2955   1696.0     3670   1700.0     3680   1700.0     5025   1704.0     7140
GR1708.0    7380   1708.0     7590   1710.0     9105
NC                             0.3      0.5
X1 2.284      25     2250     2395      100      100      100
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X3                                                  3032    1704.0
GR1716.0      100    1712.0      120    1708.0      260    1704.0      950    1700.0     1160
GR1700.0     1330    1696.0     1450    1695.0     2000    1695.0     2250    1686.8     2252
GR1686.8     2394    1695.0     2395    1696.0     2655    1696.5     2692    1693.0     2852
GR1704.0     3032    1700.0     3050    1696.0     3060    1696.0     3685    1700.0     3695
GR1700.0     5070    1704.0     7185    1708.0     7470    1708.0     7690    1710.0     9230
X1  2.285      63      2250      2395         1          1          1
K2                                                                                      15
X3                                                  3032    1704.0
BT       6   2000    1695.0    1695.0     2248    1695.0    1695.0    2249.9    1696.3    1686.8
BT2396.1  1696.3    1686.8      2397    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0      100    1712.0      120    1708.0      260    1704.0      950    1700.0     1160
GR1700.0     1330    1696.0     1450    1695.0     2000    1695.0     2248    1692.3    2249.8
GR1686.8    2249.9   1686.8    2263.8    1692.3    2263.9    1692.3    2264.5    1686.8    2264.6
GR1686.8    2278.5   1692.3    2279.6    1692.3    2279.2    1686.8    2279.3    1686.8    2293.2
GR1692.3    2293.3   1692.3    2293.9    1686.8    2294.0    1686.8    2307.9    1692.3    2308.0
GR1692.3    2308.5   1686.8    2308.7    1686.8    2322.6    1692.3    2322.7    1692.3    2323.3
GR1686.8    2323.4   1686.8    2337.3    1692.3    2337.4    1692.3    2338.0    1686.8    2338.1
GR1686.8    2352.0   1692.3    2352.1    1692.3    2352.7    1686.8    2352.8    1686.8    2366.7
GR1692.3    2366.8   1692.3    2367.4    1686.8    2367.5    1686.8    2381.4    1692.3    2381.5
GR1692.3    2382.1   1686.8    2382.2    1686.8    2396.1    1692.3    2396.2    1695.0      2397
GR1696.0      2655   1696.5      2692    1693.0      2852    1704.0      3032    1700.0      3050
GR1696.0      3060   1696.0      3685    1700.0      3695    1700.0      5070    1704.0      7185
GR1708.0      7470   1708.0      7690    1710.0      9230
X1  2.301      63      2250      2395        87         87         87
K2                                                                                      15
X3                                                  3032    1704.0
BT       6   2000    1695.0    1695.0     2250    1695.0    1695.0    2251.9    1696.3    1686.8
BT2394.1  1693.1    1686.8      2395    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0      100    1712.0      120    1708.0      260    1704.0      950    1700.0     1160
GR1700.0     1330    1696.0     1450    1695.0     2000    1695.0     2250    1692.3    2251.8
GR1686.8    2251.9   1686.8    2261.8    1692.3    2261.9    1692.3    2266.5    1686.8    2266.6
GR1686.8    2276.5   1692.3    2276.6    1692.3    2281.2    1686.8    2281.3    1686.8    2291.2
GR1692.3    2291.3   1692.3    2295.9    1686.8    2296.0    1686.8    2305.9    1692.3    2306.0
GR1692.3    2310.6   1686.8    2310.7    1686.8    2320.6    1692.3    2320.7    1692.3    2325.3
GR1686.8    2325.4   1686.8    2335.3    1692.3    2335.4    1692.3    2340.0    1686.8    2340.1
GR1686.8    2350.0   1692.3    2350.1    1692.3    2354.7    1686.8    2354.8    1686.8    2364.7
GR1692.3    2364.8   1692.3    2369.4    1686.8    2369.5    1686.8    2379.4    1692.3    2379.5
GR1692.3    2384.1   1686.8    2394.2    1686.8    2394.1    1692.3    2394.2    1695.0      2395
GR1696.0      2655   1696.5      2692    1693.0      2852    1704.0      3032    1700.0      3050
GR1696.0      3060   1696.0      3685    1700.0      3695    1700.0      5070    1704.0      7185
GR1708.0      7470   1708.0      7690    1710.0      9230
X1  2.302        25      2250      2395         1          1
X3                                                  3032    1704.0
GR1716.0      100    1712.0      120    1708.0      260    1704.0      950    1700.0     1160
GR1700.0     1330    1696.0     1450    1695.0     2000    1695.0     2250    1686.8     2252
GR1686.8     2394    1695.0     2395    1696.0     2655    1696.5     2692    1693.0     2852
GR1704.0     3032    1700.0     3050    1696.0     3060    1696.0     3685    1700.0     3695
GR1700.0     5070    1704.0     7185    1708.0     7470    1708.0     7690    1710.0     9230
X1   2.31        44      2181      2420         50         50         50
X3                                          1930    1704.0     2995    1704.0
GR1716.0      250    1712.0      270    1708.0      430    1704.0      790    1700.0     1000
GR1696.0     1410    1696.0     1505    1700.0     1515    1700.0     1620    1704.0     1670
GR1704.0     1930    1700.0     1940    1696.7     2000    1696.7     2032    1694.9     2102
GR1694.9     2164    1696.6     2172    1698.0     2181    1694.2     2198    1690.1     2208
GR1690.1     2223    1689.0     2229    1689.0     2251    1690.8     2279    1693.7     2300
GR1691.1     2354    1693.1     2388    1694.2     2420    1695.4     2443    1695.4     2564
GR1696.5     2602    1696.0     2760    1696.0     2955    1700.0     2965    1704.0     2995
GR1700.0     3005    1696.0     3180    1696.0     3585    1700.0     3595    1700.0     4990
GR1704.0     5950    1708.0     7350    1709.3     7589    1710.0     9120
NC  0.045   0.035      0.03       0.1        0.3
X1   2.33                                   125         95        110
X3                                          1930    1704.0     2995    1704.0
NC   0.06    0.05      0.03
X1   2.54        36      2727      2917      1200        900       1116
X3                                                  3045    1702.4
GR1712.0      705    1708.0      706    1704.0      785    1700.0     1045    1700.0     1915
GR1700.0     1815    1698.0     2100    1697.8     2578    1697.7     2690    1698.2     2703
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GR1695.2     2710  1695.2     2727  1541.9     2744  1691.8     2793  1691.4     2843
GR1690.8     2872  1691.9     2895  1695.3     2917  1701.4     3025  1702.4     3045
GR1701.8     3121  1701.8     3181  1700.6     3239  1700.6     3326  1695.1     3365
GR1697.7     3430  1696.9     3499  1696.8     3561  1696.8     3577  1701.0     3670
GR1700.0     3720  1700.0     5070  1704.0     7000  1708.0     7450  1708.0     7685
GR1710.0     8450
K1   2.78      34     3417     3503      950      900     1240
K3                  3417   1705.2     3671   1703.5
GR1712.0        0  1708.0      305   1704.0      885   1704.0     2120  1704.0     2260
GR1704.0     2450  1704.0     3380   1705.2     3417   1705.2     3417  1705.2     3417
GR1705.2     3417  1693.6     3427   1691.9     3431   1691.3     3434  1691.3     3449
GR1690.9     3451  1690.9     3473   1691.6     3496   1702.7     3503  1703.5     3671
GR1702.6     3704  1701.9     3718   1701.9     3726   1701.9     3742  1703.0     3748
GR1702.8     3778  1702.5     4003   1701.5     4234   1702.5     4359  1703.5     4460
GR1702.5     5070  1704.0     5640   1708.0     7010   1710.0     7630
VH         5 0.045     9918  0.050    13138  0.045    10362  0.130    12103  0.04
VH   13578
K1   3.04      36     9918    10138      600     1450     1380
K3                  9798   1714.1
GR1716.0     5153  1712.0     5553   1708.0     6393   1704.0     7208  1704.0     7323
GR1704.0     7453  1708.0     7573   1708.0     9473   1712.0     9713  1714.1     9798
GR1713.5     9885  1709.3     9918   1708.3     9954   1704.6     9969  1697.0     9987
GR1697.0     9993  1697.0    10012   1699.1    10033   1695.8    10057  1696.0    10067
GR1698.5    10069  1698.0    10076   1696.8    10079   1696.8    10093  1702.8    10108
GR1709.5    10138  1709.7    10173   1708.4    10188   1708.4    10253  1708.4    10268
GR1712.0    10309  1711.9    10325   1711.1    10362   1709.3    10860  1712.0    12103
GR1716.0    13578
VC  0.045   0.045     0.05
K1  3.256      32     9863    10103      800     1250     1144
K3                  9824   1714.9    10273   1716.8
GR1728.0     3820  1724.0     4305   1720.0     4475   1716.0     5215  1712.0     5340
GR1708.0     6620  1708.0     6775   1708.0     6920   1708.0     8135  1712.0     9410
GR1713.8     9673  1712.4     9783   1714.9     9824   1714.3     9863  1710.1     9907
GR1707.7     9983  1706.8     9995   1706.8    10013   1708.4    10027  1709.9    10066
GR1714.7    10103  1716.1    10159   1716.8    10273   1716.0    10326  1712.0    10545
GR1708.0    10575  1708.0    10655   1712.0    10695   1716.0    11745  1720.0    13155
GR1724.0    13440  1728.0    14900
K1  3.262                                30       30       30
K3                          9824   1714.9    10273   1716.8
NC                           0.3      0.5
ET                 7.1      7.1      7.1                        9824    10273
X1  3.274      53     9900    10100    58.25    68.25    63.25
X2                                                                          15
BT         2 9900  1714.0   1713.0    10100  1714.0   1713.0
GR1728.0     3820  1724.0     4305   1720.0     4475   1716.0     5215  1712.0     5340
GR1708.0     6620  1708.0     6775   1708.0     6920   1708.0     8135  1712.0     9410
GR1713.8     9673  1712.4     9783   1714.9     9824   1714.3     9863  1712.0     9880
GR1714.0     9900  1710.0   9923.1   1713.0   9923.2   1713.0   9928.1  1710.0   9928.2
GR1709.0   9949.0  1713.0   9949.1   1713.0   9954.0   1709.0   9954.1  1708.0   9975.0
GR1713.0   9975.1  1713.0   9980.0   1708.0   9980.1   1708.9  10020.0  1713.0  10020.1
GR1713.0  10025.0  1708.0  10025.1   1709.0  10046.0   1713.0  10046.1  1713.0  10051.0
GR1709.0  10051.1  1710.0  10072.0   1713.0  10072.1   1713.0  10077.0  1710.0  10077.1
GR1714.0    10100  1712.0    10120   1716.1    10159   1716.8    10273  1716.0    10326
GR1712.0    10545  1708.0    10575   1708.0    10655   1712.0    10695  1716.0    11745
GR1720.0    13155  1724.0    13440   1728.0    14900
ET                 7.1      7.1      7.1                        9824    10273
X1  3.28       32     9863    10103    43.25    53.25    43.25
GR1728.0     3820  1724.0     4305   1720.0     4475   1716.0     5215  1712.0     5340
GR1708.0     6620  1708.0     6775   1708.0     6920   1708.0     8135  1712.0     9410
GR1713.8     9673  1712.4     9783   1714.9     9824   1714.3     9863  1710.1     9907
GR1708.0     9983  1708.0     9995   1708.0    10013   1708.4    10027  1709.9    10066
GR1714.7    10103  1716.1    10159   1716.8    10273   1716.0    10326  1712.0    10545
GR1708.0    10575  1708.0    10655   1712.0    10695   1716.0    11745  1720.0    13155
GR1724.0    13440  1728.0    14900
NC                           0.1      0.3
NH         6 0.045     9552  0.028     9942  0.023    10056  0.028    10168  0.13
NH   13430 0.040    15535
ET                 7.1      7.1      7.1                        9552    10218
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X1   3.47        31      9942     10213       620      1000       976
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1717.4      9650    1717.2      9717    1716.8      9830    1715.1      9886
GR1716.7      9914    1716.5      9942    1709.8     10000    1710.7     10017    1711.6     10056
GR1713.4     10076    1718.9     10168    1720.1     10218    1716.7     10299    1717.0     10655
GR1720.0     10955    1720.0     11970    1724.0     12885    1728.0     13430    1728.0     14405
GR1732.0     15535
ET              7.1      7.1      7.1                          9552     10218
X1   3.49                                     120       120       120
NC                                0.3       0.5
NH       6    0.045      9552    0.028      9952    0.023     10048    0.028     10168     0.13
NH   13430    0.040     15535
ET              7.1      7.1      7.1                          9610     10218
X1   3.506       40      9952     10218        84        84        84
X2                                                                              15
BT           2  9952    1718.0    1716.0    10048    1718.0    1716.0
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1720.0      9610    1717.4      9650    1717.2      9717    1716.8      9830
GR1715.1      9886    1716.7      9914    1718.0      9952    1712.2    9952.1    1712.2    9986.9
GR1716.0    9987.0    1716.0    9992.4    1712.2    9992.5    1712.2  10007.3    1716.0  10007.4
GR1716.0  10012.9     1712.2  10013.0     1712.2  10047.9     1718.0     10048    1713.4     10076
GR1718.9     10158    1720.1     10218    1716.7     10299    1717.0     10655    1720.0     10955
GR1720.0     11970    1724.0     12885    1728.0     13430    1728.0     14405    1732.0     15535
NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168     0.13
NH   13430    0.040     15535
ET              7.1      7.1      7.1                          9610     10218
X1   3.51        32      9942     10218        44        44        44
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1720.0      9610    1717.4      9650    1717.2      9717    1716.8      9830
GR1715.1      9886    1716.7      9914    1716.5      9942    1712.0     10000    1712.0     10017
GR1712.0     10056    1713.4     10076    1718.9     10168    1720.1     10218    1716.7     10299
GR1717.0     10655    1720.0     10955    1720.0     11970    1724.0     12885    1728.0     13430
GR1728.0     14405    1732.0     15535
NC                                0.1       0.3
NH       5    0.045      9645    0.028      9897    0.023     10222    0.110     12895     0.045
NH   14765
X1   3.69        33      9897     10222       950       850       908
X3                               9681    1731.1     10222    1723.8
GR1732.0      3795    1728.0      3880    1724.0      3970    1724.0      4515    1720.0      5705
GR1716.0      6660    1716.0      6785    1720.0      7375    1720.0      8060    1721.7      8100
GR1720.0      8140    1720.0      9320    1724.0      9535    1728.6      9645    1731.1      9681
GR1721.4      9747    1720.7      9780    1720.1      9861    1720.3      9897    1715.4      9930
GR1716.8      9971    1715.2      9994    1715.2     10005    1715.4     10025    1715.4     10035
GR1719.0     10059    1723.8     10222    1720.4     10355    1724.0     10545    1724.0     12895
GR1728.0     13735    1728.0     14075    1732.0     14765
NH       7    0.045      6875    0.130      9105    0.028      9921    0.023     10111     0.028
NH   10364    0.110     12500    0.045     14640
X1   3.86        50      9921     10111       950       880       908
X3                               9828    1726.3     10137    1729.3
GR1740.0      3430    1736.0      3685    1732.8      4030    1728.0      4585    1724.0      5940
GR1724.0      6075    1724.0      6875    1724.0      8840    1727.9      9105    1727.9      9177
GR1724.7      9184    1724.7      9203    1725.9      9230    1728.8      9255    1728.0      9326
GR1728.0      9410    1727.4      9426    1725.0      9448    1723.8      9544    1723.8      9613
GR1724.9      9619    1724.9      9624    1724.2      9629    1723.2      9637    1723.2      9653
GR1725.1      9656    1725.3      9725    1726.0      9762    1726.3      9828    1726.3      9875
GR1725.0      9921    1721.3      9941    1720.3      9994    1719.2      9997    1719.2     10002
GR1720.7     10004    1720.7     10038    1723.9     10078    1727.2     10111    1729.3     10137
GR1728.1     10165    1726.9     10221    1726.2     10283    1726.7     10364    1724.0     10960
GR1724.0     11920    1728.0     12500    1728.0     13260    1729.8     13910    1732.0     14640
NH       7    0.050      5160    0.130      9619    0.030      9913    0.028     10100     0.030
NH   10271    0.130     12400    0.045     14210
X1   4.04        38      9913     10100      1000       900       960
X2                                                                              15
X3                               9672    1732.4     10317    1731.2
GR1736.0      3440    1732.0      4945    1732.0      5160    1732.0      8340    1728.0      8740
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GR1732.0    9485   1732.0    9585   1729.5    9619   1729.9    9650   1732.4    9672
GR1732.4    9771   1729.9    9784   1729.9    9827   1729.2    9913   1722.0    9949
GR1721.7    9934   1721.0    9997   1721.0   10003   1722.5   10005   1722.1   10047
GR1727.4   10079   1730.9   10100   1731.8   10113   1732.0   10136   1731.5   10172
GR1730.1   10196   1730.5   10232   1731.2   10271   1731.2   10317   1726.6   10333
GR1726.6   10399   1731.5   10413   1731.5   10442   1728.0   10890   1728.0   12400
GR1732.0   13450   1732.0   13560   1736.0   14210
NH       9 0.045    4310    0.130    7565    0.040    8365    0.130    8720    0.030
NH    9900 0.028   10100    0.03    10247    0.130   12915    0.100   14920
X1   4.23    36    9900    10247    1100     950     1020
X3                          8140    1736.0   10350   1734.5
GR1740.0    3570   1736.0    3950   1736.0    4310   1736.0    6095   1732.0    7375
GR1732.0    7555   1736.0    8140   1736.0    8365   1736.0    8720   1733.0    9738
GR1732.4    9900   1723.6    9945   1723.1    9987   1723.0    9996   1723.0   10003
GR1723.5   10003   1724.8   10040   1727.3   10053   1729.7   10030   1730.8   10095
GR1732.5   10180   1733.6   10247   1734.5   10350   1729.5   10363   1730.1   10427
GR1733.8   10440   1733.7   10515   1731.0   10528   1731.2   10616   1730.2   10628
GR1731.5   10655   1733.9   10661   1732.0   10860   1732.0   12915   1736.0   13580
GR1738.0   14920
NH       5 0.045    3880    0.130    8050    0.050    9935    0.045   10132    0.100
NH 15890
X1   4.42    27    9935    10132     992     992     992
X3                          9731   1739.7   10236   1738.0
GR1748.0    2045   1744.0    2335   1740.0    3060   1740.0    3515   1736.0    3675
GR1736.0    3880   1736.0    6450   1736.5    8050   1739.7    9731   1739.7    9794
GR1737.4    9813   1737.0    9935   1724.9    9956   1724.8   10000   1724.2   10052
GR1732.3   10072   1735.4   10095   1737.6   10132   1737.6   10179   1738.0   10236
GR1736.0   10750   1735.6   11580   1736.0   12365   1740.0   13440   1744.0   14870
EJ
T1         CORFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - NONDMAGING FLOWS (d/s Reach)
J1             3                                        0.5              1695.7
J2       2              -1
T1         CORFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - NONDMAGING FLOWS (d/s Reach)
J1             4                                        0.5              1695.7
J2      15             -1


ER
EOF..
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1*****************************************************
 *  WATER SURFACE PROFILES                           *
 *  VERSION OF NOVEMBER 1976                         *
 *  UPDATED AUGUST 1983                              *
 *                                                   *
 *  RUN DATE   5-MAY-88 TIME   12:54:13              *
 *****************************************************
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X         X     X            X     X
X     X  X                            X     X
XXXXXXX  XXXX      X           XXXXX     XXXXX
X     X  X         X                    X
X     X  X         X     X              X
X     X  XXXXXXX   XXXXX                XXXXXXX
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5-MAY-88 12:54:14 PAGE 1

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR (D/S REACH)
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J1	ICHECK	INQ	NINN	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.000000	0.00	0.5	0.	1698.800	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.030	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
GT	2.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.00	7.100	0.000	0.000	0.000	0.000	500.000	3092.000	0.000	0.000

SECOND RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 2506

X1	2.230	38.800	2456.000	2740.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1716.000	900.000	1712.000	1110.000	1708.000	1250.000	1704.000	1450.000	1700.000	1605.000
GR	1696.000	1885.000	1692.000	1910.000	1692.000	1935.000	1693.700	2000.000	1694.400	2187.000
GR	1694.500	2353.000	1694.200	2420.000	1692.900	2429.000	1696.000	2456.000	1692.600	2482.000
GR	1692.600	2494.000	1688.200	2506.000	1689.300	2552.000	1689.800	2560.000	1689.700	2606.000
GR	1689.700	2628.000	1690.300	2646.000	1692.100	2660.000	1691.200	2689.000	1691.500	2701.000
GR	1694.000	2740.000	1692.300	3010.000	1690.200	3022.000	1692.700	3056.000	1702.300	3092.000

GR	1700.000	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.000	4060.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	2930.000	0.000	0.000
		CENTERLINE STATION AT 2219								
X1	2.278	38.000	2155.000	2345.000	220.000	150.000	203.000	0.000	0.000	0.000
GR	1716.000	1.000	1712.000	35.000	1708.000	225.000	1704.000	880.000	1700.000	1085.000
GR	1700.000	1200.000	1696.000	1350.000	1696.000	1500.000	1695.500	2000.000	1695.500	2032.000
GR	1694.500	2093.000	1693.900	2120.000	1696.300	2142.000	1695.300	2155.000	1693.400	2165.000
GR	1689.700	2175.000	1689.700	2210.000	1688.500	2219.000	1689.900	2252.000	1690.100	2277.000
GR	1693.100	2297.000	1693.100	2337.000	1693.500	2345.000	1694.100	2385.000	1694.700	2405.000
GR	1694.800	2550.000	1696.500	2600.000	1693.000	2760.000	1704.000	2930.000	1700.000	2945.000
GR	1696.000	2955.000	1695.000	3670.000	1700.000	3680.000	1700.000	5025.000	1704.000	7140.000
GR	1706.000	7380.000	1708.000	7590.000	1710.000	9105.000	0.000	0.000	0.000	0.000

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NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3032.000	0.000	0.000
		CENTERLINE STATION AT 2323								
X1	2.284	25.000	2250.000	2395.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3032.000	0.000	0.000
		CENTERLINE STATION AT 2323								
X1	2.285	63.000	2248.000	2397.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	6.000	2000.000	1695.000	1695.000	2248.000	1695.000	1695.000	2249.900	1696.300	1686.800
BT	2396.100	1696.300	1686.800	2397.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2248.000	1692.300	2249.800
GR	1686.800	2249.900	1686.800	2263.800	1692.300	2263.900	1692.300	2264.500	1686.800	2264.600
GR	1686.800	2278.500	1692.300	2278.600	1692.300	2279.200	1686.800	2279.300	1686.800	2293.200
GR	1692.300	2293.300	1692.300	2293.900	1686.800	2294.000	1686.800	2307.900	1692.300	2308.000
GR	1692.300	2308.600	1686.800	2308.700	1686.800	2322.600	1692.300	2322.700	1692.300	2323.300
GR	1686.800	2323.400	1686.800	2337.300	1692.300	2337.400	1692.300	2338.000	1686.800	2338.100
GR	1686.800	2352.000	1692.300	2352.100	1692.300	2352.700	1686.800	2352.800	1686.800	2366.700
GR	1692.300	2366.800	1692.300	2367.400	1686.800	2367.500	1686.800	2381.400	1692.300	2381.500
GR	1692.300	2382.100	1686.800	2382.200	1686.800	2396.100	1692.300	2396.200	1695.000	2397.300
GR	1696.000	2655.000	1695.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3650.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3032.000	0.000	0.000
		**** VEGAS VALLEY DRIVE (NB) ****								
		2' DEBRIS LOADING								
		CENTERLINE STATION AT 2323								
X1	2.301	63.000	2250.000	2395.000	87.000	87.000	87.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	6.000	2000.000	1695.000	1695.000	2250.000	1695.000	1695.000	2251.900	1696.300	1686.800
BT	2394.100	1693.100	1686.800	2395.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1692.300	2251.800
GR	1686.800	2251.900	1686.800	2261.800	1692.300	2261.900	1692.300	2266.500	1686.800	2266.600
GR	1686.800	2276.500	1692.300	2276.600	1692.300	2281.200	1686.800	2281.300	1686.800	2291.200
GR	1692.300	2291.300	1692.300	2295.900	1686.800	2296.000	1686.800	2305.900	1692.300	2306.000
GR	1692.300	2310.600	1686.800	2310.700	1686.800	2320.600	1692.300	2320.700	1692.300	2325.300
GR	1686.800	2325.400	1686.800	2335.300	1692.300	2335.400	1692.300	2340.000	1686.800	2340.100
GR	1686.800	2350.000	1692.300	2350.100	1692.300	2354.700	1686.800	2354.800	1686.800	2364.700
GR	1692.300	2364.800	1692.300	2369.400	1686.800	2369.500	1686.800	2379.400	1692.300	2379.500
GR	1692.300	2384.100	1686.800	2384.200	1686.800	2394.100	1692.300	2394.200	1695.000	2395.000

GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3032.000	0.000	0.000
		CENTERLINE STATION AT 2323								
X1	2.362	25.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	2995.000	0.000	0.000
		CENTERLINE STATION AT 2240								
X1	2.310	44.000	2181.000	2420.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	1716.000	250.000	1712.000	270.000	1708.000	430.000	1704.000	790.000	1700.000	1000.000
GR	1696.000	1410.000	1696.000	1505.000	1700.000	1515.000	1700.000	1620.000	1704.000	1670.000
GR	1704.000	1930.000	1700.000	1940.000	1696.700	2000.000	1696.700	2032.000	1694.900	2102.000
GR	1694.900	2164.000	1696.600	2172.000	1698.000	2181.000	1694.200	2198.000	1690.100	2208.000
GR	1690.100	2223.000	1689.000	2229.000	1689.000	2251.000	1690.800	2279.000	1693.700	2300.000
GR	1691.100	2364.000	1693.100	2388.000	1694.200	2420.000	1695.400	2443.000	1695.400	2564.000
GR	1696.500	2600.000	1696.000	2760.000	1696.000	2955.000	1700.000	2965.000	1704.000	2995.000
GR	1700.000	3005.000	1696.000	3180.000	1696.000	3585.000	1700.000	3595.000	1700.000	4590.000
GR	1704.000	6950.000	1708.000	7350.000	1708.000	7580.000	1710.000	9120.000	0.000	0.000
NC	0.045	0.035	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	2.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	2995.000	0.000	0.000
		CENTERLINE STATION AT 2240								
X1	2.330	0.000	0.000	0.000	125.000	95.000	110.000	0.000	0.000	0.000
NC	0.060	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3045.000	0.000	0.000
		CENTERLINE STATION AT 2872								
X1	2.540	36.000	2727.000	2917.000	1200.000	900.000	1116.000	0.000	0.000	0.000
GR	1712.000	705.000	1708.000	706.000	1704.000	785.000	1700.000	1045.000	1700.000	1815.000
GR	1700.000	1815.000	1698.000	2190.000	1697.800	2576.000	1697.700	2690.000	1698.200	2703.000
GR	1695.200	2710.000	1695.200	2727.000	1691.000	2744.000	1691.800	2793.000	1691.400	2843.000
GR	1690.000	2872.000	1691.000	2896.000	1695.300	2917.000	1701.400	3025.000	1702.400	3045.000
GR	1701.800	3121.000	1701.800	3181.000	1700.600	3239.000	1700.600	3326.000	1699.100	3365.000
GR	1697.700	3430.000	1696.900	3499.000	1696.800	3561.000	1696.800	3577.000	1701.800	3670.000
GR	1700.000	3720.000	1700.000	5070.000	1704.000	7190.000	1708.000	7640.000	1708.000	7875.000
GR	1710.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3671.000	0.000	0.000
		CENTERLINE STATION AT 3462								
X1	2.780	34.000	3417.000	3503.000	950.000	900.000	1240.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1712.000	0.000	1708.000	305.000	1704.000	885.000	1704.000	2120.000	1704.000	2260.000
GR	1704.000	2450.000	1704.000	3380.000	1705.200	3417.000	1705.200	3417.000	1705.200	3417.000
GR	1705.200	3417.000	1693.600	3427.000	1691.900	3431.000	1691.300	3434.000	1691.300	3449.000
GR	1690.900	3451.000	1690.900	3473.000	1691.600	3496.000	1702.700	3503.000	1703.500	3671.000
GR	1702.600	3704.000	1701.900	3718.000	1701.900	3726.000	1701.900	3742.000	1703.000	3748.000
GR	1702.800	3773.000	1702.500	4003.000	1701.500	4234.000	1702.500	4359.000	1702.500	4460.000
GR	1702.500	5070.000	1704.000	5640.000	1708.000	7010.000	1710.000	7630.000	0.000	0.000

NH	5.000	0.045	9918.000	0.050	10138.000	0.045	10362.000	0.130	12103.000	0.040
NH	13578.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	10173.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	3.040	36.000	9913.000	10138.000	600.000	1450.000	1386.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1716.000	5153.000	1712.000	5553.000	1706.000	6393.000	1704.000	7208.000	1704.000	7323.000
GR	1704.000	7453.000	1708.000	7573.000	1708.000	9473.000	1712.000	9713.000	1714.100	9798.000
GR	1713.500	9885.000	1709.300	9918.000	1708.300	9954.000	1704.600	9969.000	1697.000	9987.000
GR	1697.000	9993.000	1697.000	10012.000	1699.100	10033.000	1695.800	10057.000	1696.000	10067.000
GR	1698.500	10069.000	1698.000	10076.000	1696.800	10079.000	1696.800	10093.000	1702.800	10108.000
GR	1709.500	10138.000	1709.700	10173.000	1708.400	10188.000	1708.400	10253.000	1708.400	10268.000
GR	1712.000	10309.000	1711.900	10335.000	1711.100	10362.000	1709.300	10860.000	1712.000	12103.000
GR	1716.000	13578.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.045	0.045	0.350	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.256	32.000	9863.000	10103.000	800.000	1250.000	1144.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1707.700	9983.000	1706.800	9995.000	1706.800	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13441.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.262	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

**** WINTERWOOD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	3.274	53.000	9900.000	10100.000	58.250	68.250	63.250	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1712.000	1712.000	0.000
BI	2.000	9900.000	1714.000	1713.000	10100.000	1714.000	1713.000	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1712.000	9880.000
GR	1714.000	9900.000	1710.000	9922.100	1713.000	9923.200	1713.000	9928.100	1710.000	9928.200
GR	1709.000	9949.000	1713.000	9949.100	1713.000	9954.000	1709.000	9954.100	1708.000	9975.000
GR	1713.000	9975.100	1713.000	9980.000	1708.000	9980.100	1708.000	10020.000	1713.000	10020.100
GR	1713.000	10025.000	1708.000	10025.100	1709.000	10046.000	1713.000	10046.100	1713.000	10051.000
GR	1709.000	10051.100	1710.000	10072.000	1713.000	10072.100	1713.000	10077.000	1710.000	10077.100
GR	1714.000	10100.000	1712.000	10120.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000
GR	1712.000	10545.000	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000
GR	1720.000	13155.000	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	3.280	32.000	9863.000	10103.000	43.250	53.250	43.250	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1707.700	9983.000	1706.800	9995.000	1706.800	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9542.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.470	31.000	9942.000	10056.000	620.000	1000.000	976.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000

GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000
GR	1716.700	9914.000	1716.500	9942.000	1709.800	10000.000	1710.700	10017.000	1711.600	10056.000
GR	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000
GR	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000
GR	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.490	0.000	0.000	0.000	120.000	120.000	120.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9952.000	0.023	10048.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**** WINTERWOOD GOLF COURSE BRIDGE #2**
2* DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

X1	3.516	39.000	9952.000	10048.000	84.000	84.000	84.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1716.700	1713.400	0.000
BT	2.000	9952.000	1718.000	1716.000	10048.000	1718.000	1716.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000
GR	1716.700	9914.000	1718.000	9952.000	1712.200	9952.100	1712.200	9986.900	1716.000	9987.000
GR	1716.000	9992.400	1712.200	9992.500	1712.200	10007.300	1716.000	10007.400	1716.000	10012.900
GR	1712.200	10013.000	1712.200	10047.900	1716.000	10048.000	1713.400	10076.000	1718.900	10168.000
GR	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000	1720.000	10955.000	1720.000	11970.000
GR	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000	1732.000	15535.000	0.000	0.000

NH	6.000	0.045	9552.000	0.028	9942.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.510	31.000	9942.000	10056.000	44.000	44.000	44.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000
GR	1716.700	9914.000	1716.500	9942.000	1709.800	10000.000	1710.700	10017.000	1711.600	10056.000
GR	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000
GR	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000
GR	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	9645.000	0.028	9857.000	0.023	10222.000	0.110	12855.000	0.045
NH	14765.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.690	33.000	9897.000	10222.000	950.000	850.000	908.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1732.000	3795.000	1728.000	3880.000	1724.000	3970.000	1724.000	4515.000	1720.000	5705.000
GR	1716.000	6660.000	1716.000	6785.000	1720.000	7375.000	1720.000	8060.000	1721.700	8100.000
GR	1720.000	8140.000	1720.000	9320.000	1724.000	9535.000	1728.600	9645.000	1731.100	9681.000
GR	1721.400	9747.000	1720.700	9780.000	1720.100	9861.000	1720.300	9897.000	1715.400	9930.000
GR	1716.800	9971.000	1715.200	9994.000	1715.200	10005.000	1715.400	10025.000	1715.400	10035.000
GR	1719.000	10059.000	1723.800	10222.000	1720.400	10355.000	1724.000	10545.000	1724.000	12895.000
GR	1728.000	13735.000	1728.000	14675.000	1732.000	14765.000	0.000	0.000	0.000	0.000

NH	7.000	0.045	6875.000	0.130	9105.000	0.028	9521.000	0.023	10111.000	0.028
NH	10364.000	0.110	12500.000	0.045	14640.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.860	50.000	9921.000	10111.000	950.000	880.000	908.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1740.000	3430.000	1736.000	3685.000	1732.000	4030.000	1728.000	4505.000	1724.000	5940.000
GR	1724.000	6075.000	1724.000	6875.000	1724.000	8840.000	1727.900	9105.000	1727.900	9177.000

GR	1724.700	9184.000	1724.700	9203.000	1725.900	9230.000	1728.800	9255.000	1728.000	9326.000
GR	1728.000	9410.000	1727.400	9426.000	1725.000	9448.000	1723.800	9544.000	1723.800	9613.000
GR	1724.900	9619.000	1724.900	9624.000	1724.200	9629.000	1723.200	9637.000	1723.200	9653.000
GR	1725.100	9656.000	1725.300	9725.000	1726.000	9762.000	1726.300	9828.000	1726.300	9875.000
GR	1725.000	9921.000	1721.300	9941.000	1720.300	9994.000	1719.200	9997.000	1719.200	10002.000
GR	1720.700	10034.000	1720.700	10038.000	1723.900	10078.000	1727.200	10111.000	1729.300	10137.000
GR	1726.100	10165.000	1725.900	10221.000	1726.200	10283.000	1726.700	10364.000	1724.000	10960.000
GR	1724.000	11923.000	1728.000	12500.000	1728.000	13260.000	1729.800	13910.000	1732.000	14640.000
NH	7.000	0.050	5160.000	0.130	9615.000	0.030	9913.000	0.020	10100.000	0.030
NH	10271.000	0.130	12400.000	0.045	14210.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.040	38.000	9913.000	10100.000	1000.000	900.000	960.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1736.000	3440.000	1732.000	4945.000	1732.000	5160.000	1732.000	8340.000	1728.000	8740.000
GR	1732.000	9435.000	1732.000	9585.000	1729.800	9619.000	1729.900	9650.000	1732.400	9672.000
GR	1732.400	9771.000	1729.900	9794.000	1729.900	9827.000	1729.200	9913.000	1722.000	9949.000
GR	1721.700	9994.000	1721.000	9997.000	1721.000	10003.000	1722.500	10005.000	1722.100	10047.000
GR	1727.400	10079.000	1730.900	10100.000	1731.800	10113.000	1732.000	10136.000	1731.500	10172.000
GR	1730.100	10196.000	1730.500	10232.000	1731.200	10271.000	1731.200	10317.000	1726.600	10333.000
GR	1726.600	10399.000	1731.500	10413.000	1731.500	10442.000	1728.000	10890.000	1728.000	12400.000
GR	1732.000	13450.000	1732.000	13980.000	1736.000	14210.000	0.000	0.000	0.000	0.000

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NH	9.000	0.045	4310.000	0.130	7565.000	0.140	8365.000	0.130	8720.000	0.030
NH	9900.000	0.028	10100.000	0.030	10247.000	0.130	12915.000	0.100	14920.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.230	36.000	9900.000	10247.000	1100.000	950.000	1020.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1740.000	3570.000	1736.000	3850.000	1736.000	4310.000	1736.000	6095.000	1732.000	7375.000
GR	1732.000	7565.000	1736.000	8140.000	1736.000	8365.000	1736.000	8720.000	1733.000	9738.000
GR	1732.400	9900.000	1723.600	9945.000	1723.100	9987.000	1723.000	9996.000	1723.000	10003.000
GR	1723.500	10003.000	1724.300	10040.000	1727.300	10053.000	1729.700	10080.000	1730.800	10095.000
GR	1732.500	10130.000	1733.600	10247.000	1724.500	10350.000	1729.500	10363.000	1730.100	10427.000
GR	1733.800	10440.000	1733.700	10515.000	1731.000	10528.000	1731.200	10616.000	1730.200	10628.000
GR	1731.500	10655.000	1733.900	10661.000	1732.000	10860.000	1732.000	12915.000	1736.000	13980.000
GR	1738.000	14920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.050	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9794.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.800	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10098.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 2.230

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 3470 ENCROACHMENT STATIONS=     900.0     3092.0  TYPE=     1  TARGET=    2192.000
                SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 2506
      2.23      10.60   1698.80      0.00      0.00   1699.04      0.24      0.00      0.00   1696.00
     24000.     11171.    10283.     2546.     3024.     2243.     1936.        0.        0.   1694.00
       0.00       3.69      4.59      1.32     0.030     0.035     0.100     0.000   1688.20   1689.00
  0.000746          .         0.        0.         0         0         0      0.00   1389.88   3078.87
0
 *SECNO 2.270
                CENTERLINE STATION AT 2219
      2.27      10.38   1698.98      0.00      0.00   1699.28      0.40      0.19      0.05   1695.30
     24000.     10132.    10384.     3784.     2748.     1491.     1714.       30.        7.   1693.50
       0.01       3.69      6.76      2.21     0.030     0.030     0.060     0.000   1688.50   1241.95
  0.001205       220.      203.      150.         2         0         0      0.00   1518.06   2760.01
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 2.284
                CENTERLINE STATION AT 2323
      2.28      12.17   1698.97      0.00      0.00   1699.38      0.41      0.09      0.01   1695.00
     24000.      9521.    11782.     2697.     3029.     1752.     1676.       44.       10.   1695.00
       0.02       3.14      6.73      1.61     0.030     0.030     0.060     0.000   1686.80   1361.06
  0.000750       100.      100.      100.         4         0         0      0.00   1490.95   2852.01
0
 *SECNO 2.285

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

                CENTERLINE STATION AT 2323
      2.29      12.17   1698.97      0.00      0.00   1699.38      0.42      0.00      0.00   1695.00
     24000.     17238.     1886.     4876.     3024.      395.     1670.       44.       10.   1695.00
       0.02       5.70      4.72      2.92     0.030     0.030     0.060     0.000   1686.80   1360.96
  0.002465          1.        1.        1.         0         0         0 -1360.67   1491.05   2852.01
0
1
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     SECNO      DEPTH      CWSEL      CRIWS      LSELK      EG         HV         HL         CLOSS     BANK ELEV
     G          GLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        ANCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 FLOW DISTRIBUTION FOR SECNO=      2.29          CWSEL=   1698.97

 STA=    1361.     1450.     2000.     2248.     2397.     2655.     2692.     2852.
   PER Q=     1.8      44.8      25.3       7.9      10.5       1.0       8.8
    AREA=   132.1    1907.4     984.1     399.3     894.7     100.6     674.9
     VEL=     3.2       5.6       6.2       4.7       2.8       2.4       3.1

 *SECNO 2.301

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

                **** VEGAS VALLEY DRIVE (NB) ****
                2* DEBRIS LOADING
                CENTERLINE STATION AT 2323
      2.30      12.45   1699.25      0.00      0.00   1699.58      0.33      0.17      0.03   1695.00
     24000.     15937.     3576.     4487.     3290.      660.     1809.       55.       13.   1695.00
       0.02       4.84      5.42      2.48     0.030     0.030     0.060     0.000   1686.80   1352.28
  0.001613         87.       87.       87.         2         0         0  -895.71   1499.73   2852.01
0
 FLOW DISTRIBUTION FOR SECNO=      2.30          CWSEL=   1699.25

 STA=    1352.     1450.     2000.     2250.     2395.     2655.     2692.     2852.
   PER Q=     1.3      41.4      23.2      14.9       9.8       1.0       7.9
    AREA=   159.1    2066.5    1064.3     659.6     576.9     111.3     721.2
     VEL=     2.8       4.8       5.2       5.4       2.4       2.1       2.6
```

*SECNO 2.302

CENTERLINE STATION AT 2323

2.30	12.44	1699.24	0.00	0.00	1699.55	0.35	-.00	0.01	1695.00
24000.	9954.	11243.	2803.	3286.	1793.	1807.	55.	13.	1695.00
0.02	3.03	6.27	1.55	0.030	0.030	0.060	0.000	1686.60	1352.40
0.000632	1.	1.	1.	3	0	0	0.00	1499.61	2852.01

*SECNO 2.310

3265 DIVIDED FLOW

CENTERLINE STATION AT 2240

2.31	10.15	1699.15	0.00	0.00	1699.75	0.64	0.05	0.15	1698.00
24000.	6133.	13683.	4179.	1497.	1720.	1762.	62.	15.	1694.20
0.03	4.10	7.96	2.37	0.030	0.030	0.060	0.000	1689.00	1086.77
0.001874	51.	50.	50.	2	0	0	0.00	1433.60	2962.88

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IBC	ICCNT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 2.330

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 2995.3 TYPE= 1 TARGET= 2995.000

CENTERLINE STATION AT 2240

2.33	10.51	1699.51	0.00	0.00	1699.98	0.47	0.17	0.02	1698.00
24000.	4230.	12571.	7199.	1734.	1804.	1953.	75.	19.	1694.20
0.03	2.44	6.97	3.69	0.045	0.030	0.035	0.000	1689.00	1050.74
0.001348	125.	110.	95.	3	0	0	0.00	1477.79	2963.76

*SECNO 2.540

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 2872

2.54	10.87	1700.87	0.00	0.00	1701.93	1.06	1.78	0.18	1695.20
24000.	6140.	17141.	718.	3162.	1766.	275.	211.	64.	1695.20
0.07	1.94	9.71	2.61	0.060	0.030	0.050	0.000	1690.00	988.39
0.001979	120.	1116.	900.	3	0	0	0.00	2027.25	3015.63

*SECNO 2.780
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 3462

2.78	15.34	1706.24	1706.24	0.00	1707.34	1.10	2.20	0.01	1705.20
24000.	10851.	13149.	0.	6813.	1167.	0.	356.	119.	1702.70
0.12	1.80	11.27	0.01	0.060	0.030	0.050	0.000	1690.90	560.20
0.001902	960.	1240.	900.	20	15	0	0.00	2942.80	3503.01

FLOW DISTRIBUTION FOR SECNO= 2.78 CWSEL= 1706.24

STA=	560.	885.	2120.	2260.	2450.	3380.	3417.	3503.
PER Q=	1.2	21.3	2.4	3.3	16.1	0.4	54.8	
AREA=	363.8	2766.4	313.6	425.6	2083.2	60.7	1166.5	
VEL=	1.2	1.8	1.8	1.8	1.8	1.5	11.3	

SECNO	DEPTH	C*SEL	CRIWS	*SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	Q CH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	V CH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1450 NH CARD USED
*SECNO 3.040

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

3.04	13.18	1708.98	0.00	0.00	1709.18	0.20	1.75	0.09	1709.30
24000.	15775.	8225.	0.	6013.	1658.	0.	483.	167.	1709.50
0.19	2.62	4.96	0.00	0.045	0.050	0.045	0.000	1695.80	6186.28
0.001794	600.	1380.	1450.	3	0	0	0.00	3552.11	10135.69

FLOW DISTRIBUTION FOR SECNO= 3.04 C*SEL= 1708.98

STA=	6186.	7208.	7323.	7453.	7573.	9473.	9532.	10138.
PER Q=	29.3	9.7	11.0	4.3	10.8	0.1	34.3	
AREA=	2534.0	573.2	648.0	358.1	1870.3	29.1	1656.0	
VEL=	2.8	4.1	4.1	2.9	1.4	0.9	5.0	

*SECNO 3.256

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.26	4.15	1710.95	0.00	0.00	1711.09	0.14	1.99	0.01	1714.30
24000.	21934.	1066.	1000.	7265.	401.	313.	637.	235.	1714.70
0.27	3.02	2.66	3.20	0.045	0.050	0.045	0.000	1706.80	5674.49
0.002678	800.	1144.	1250.	4	0	0	0.00	3710.11	10684.55

FLOW DISTRIBUTION FOR SECNO= 3.26 C*SEL= 1710.95

STA=	5674.	6620.	6775.	6920.	8135.	9077.	10103.	10575.	10655.	10685.
PER Q=	12.9	6.7	6.3	52.6	12.9	4.4	0.3	3.5	0.4	
AREA=	1396.3	458.0	428.4	3590.0	1391.3	400.9	32.7	236.4	43.6	
VEL=	2.2	3.5	3.5	3.5	2.2	2.7	2.2	3.5	2.2	

*SECNO 3.262

SECNO	DEPTH	C*SEL	CRIWS	*SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	Q CH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	V CH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.26	4.24	1711.04	0.00	0.00	1711.17	0.13	0.08	0.00	1714.30
24000.	21937.	1066.	997.	7547.	415.	324.	642.	238.	1714.70
0.28	2.91	2.57	3.08	0.045	0.050	0.045	0.000	1706.80	5648.13
0.002406	30.	30.	30.	2	0	0	0.00	3765.69	10685.37

CCHV= 0.300 CEHV= 0.500
*SECNO 3.274

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
**** WINTERWOOD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.27	4.05	1712.05	1712.05	0.00	1712.11	0.06	0.08	0.02	1714.00
24000.	22357.	663.	980.	11369.	442.	468.	656.	244.	1714.00
0.29	1.97	1.50	2.10	0.045	0.050	0.045	0.000	1708.00	5338.47
0.000794	58.	63.	68.	20	15	0	0.00	4393.82	10707.82

FLOW DISTRIBUTION FOR SECNO= 3.27 CWSEL= 1712.05

STA=	5338.	6620.	6775.	6920.	8135.	9410.	10100.	10655.	10708.
PER Q=	16.4	8.2	5.8	48.5	16.3	2.8	3.6	0.5	
AREA=	2622.5	627.6	587.1	4919.3	2612.3	441.7	385.4	82.3	
VEL=	1.5	2.4	2.4	2.4	1.5	1.5	2.2	1.5	

*SECNO 3.280

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

3.28	5.29	1712.09	0.00	0.00	1712.14	0.06	0.03	0.00	1714.30
24000.	21983.	1050.	962.	11524.	612.	474.	669.	248.	1714.70
0.29	1.91	1.72	2.03	0.045	0.050	0.045	0.000	1706.80	5337.29
0.000737	43.	43.	53.	3	0	0	0.00	4459.60	10717.78

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.470

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

3.47	5.11	1714.91	1714.91	0.00	1715.56	0.65	1.15	0.18	1716.50
24000.	19223.	4303.	473.	4959.	338.	67.	603.	306.	1711.60
0.33	3.88	12.71	7.06	0.045	0.023	0.028	0.000	1709.60	5510.56
0.007673	620.	976.	1000.	20	10	0	0.00	3428.27	10101.19

FLOW DISTRIBUTION FOR SECNO= 3.47 CWSEL= 1714.91

STA=	5511.	6840.	6970.	8793.	10056.	10076.	10101.

PER Q=	29.9	9.3	41.9	17.9	1.7	0.3
AREA=	1931.5	377.8	2649.2	338.5	48.1	19.0
VEL=	3.7	5.9	3.7	12.7	8.3	3.8

*SECNO 3.490

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.49	6.04	1715.84	0.07	0.00	1716.03	0.19	0.43	0.05	1716.50
24000.	20289.	3218.	493.	8492.	435.	116.	823.	317.	1711.60
0.34	2.39	7.39	4.24	0.045	0.023	0.028	0.000	1709.80	5085.34
0.002056	120.	120.	120.	3	0	0	0.00	4497.40	10116.74

SECNO	DEPTH	CWSEL	CRIWS	∠SELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

3685 20 TRIALS ATTEMPTED ∠SEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
**** WINTER COD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	4.63	1716.83	1716.83	0.00	1716.88	0.05	0.09	0.04	1718.00
24000.	22962.	771.	267.	13019.	322.	144.	844.	326.	1718.00
0.35	1.76	2.39	1.85	0.045	0.023	0.028	0.000	1712.20	4954.07
0.000689	84.	84.	84.	20	22	0	-79.58	4951.44	10451.65

FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1716.83

STA=	4954.	6840.	6970.	9480.	9918.	10048.	10452.
PER Q=	37.5	6.5	51.3	0.4	3.2	1.1	
AREA=	5199.5	627.7	7099.8	92.7	322.1	144.1	
VEL=	1.7	2.5	1.7	1.1	2.4	1.5	

1490 NH CARD USED
*SECNO 3.510

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.51	7.05	1716.85	0.08	0.00	1716.91	0.07	0.03	0.01	1716.50
24000.	21117.	2419.	474.	13114.	549.	200.	858.	321.	1711.60
0.36	1.61	4.39	2.38	0.045	0.023	0.028	0.000	1709.80	4952.79
0.000570	44.	44.	44.	4	0	0	0.00	5063.59	10474.10

CCHV= 0.100 CEHV= 0.300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 3.690

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

3.69	5.01	1720.21	1720.21	0.00	1720.82	0.61	1.22	0.16	1720.30
24000.	17515.	6485.	0.	4338.	641.	0.	1063.	428.	1723.80
0.40	4.04	10.11	0.00	0.045	0.023	0.110	0.000	1715.20	5643.15
0.005289	950.	908.	850.	20	14	0	0.00	3854.18	10100.02

FLOW DISTRIBUTION FOR SECNO= 3.69 CWSEL= 1720.21

STA=	5643.	6650.	6735.	7375.	9880.	10222.
PER Q=	35.8	13.7	22.1	1.4	27.0	
AREA=	2115.3	526.3	1302.7	391.7	641.2	
VEL=	4.1	6.3	4.1	0.8	10.1	

1490 NH CARD USED
*SECNO 3.860

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

3.86	6.65	1725.85	1725.85	0.0	1726.48	0.63	4.46	0.00	1725.00
24000.	13312.	1797.	2902.	6586.	721.	2397.	1220.	533.	1727.20
0.46	2.03	10.82	1.21	0.069	0.023	0.110	0.000	1719.20	5277.37
0.004338	950.	908.	880.	2	15	0	0.00	5891.12	12187.82

FLOW DISTRIBUTION FOR SECNO= 3.86 CWSEL= 1725.85

STA=	5277.	5940.	6075.	6875.	8840.	9544.	9613.	9921.	10111.	11920.	12188.
PER Q=	5.3	3.4	20.2	17.1	3.5	3.3	2.7	32.5	11.2	0.9	
AREA=	611.9	249.4	1477.6	3629.4	296.1	141.2	150.1	720.6	2149.7	247.3	
VEL=	2.1	3.3	3.3	1.1	2.8	5.6	4.3	10.8	1.3	0.8	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 4.040

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

4.04	9.84	1730.84	1730.84	0.00	1731.84	1.00	3.47	0.11	1729.20	
24000.	1471.	13639.	8390.	1346.	1288.	6234.	1422.	641.	1730.90	
0.56	1.09	10.59	1.43	0.093	0.026	0.106	0.000	1721.00	8455.75	
0.003071	1000.	960.	900.	6	9	0	0.00	3964.11	13146.16	

FLOW DISTRIBUTION FOR SECNO= 4.04 CHSEL= 1730.84

STA=	8456.	9269.	9913.	10100.	10890.	12400.	13146.
PER Q=	3.9	2.3	56.8	4.1	22.7	10.2	
AREA=	1156.4	169.4	1288.4	881.7	4292.2	1061.5	
VEL=	0.3	2.9	10.6	1.1	1.3	2.3	

1490 NH CARD USED
*SECNO 4.230

3265 DIVIDED FLOW

7165 MINIMUM SPECIFIC ENERGY
5720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

4.23	10.91	1733.91	1733.91	0.00	1734.95	1.03	2.80	0.01	1732.40	
24000.	1898.	17255.	4847.	1552.	1799.	5342.	1621.	744.	1733.60	
0.54	1.22	9.59	0.91	0.067	0.030	0.120	0.000	1723.00	6762.42	
0.002538	1100.	1020.	950.	4	8	0	0.00	5006.15	13424.68	

FLOW DISTRIBUTION FOR SECNO= 4.23 CHSEL= 1733.91

STA=	6762.	7840.	9900.	10247.	10616.	12915.	13425.
PER Q=	4.7	3.2	71.9	3.1	15.6	1.5	
AREA=	1213.4	338.5	1799.1	600.2	4254.4	487.8	
VEL=	0.9	2.3	9.6	1.2	0.9	0.7	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 4.420

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

4.42	13.21	1737.41	1737.36	0.00	1738.11	0.70	3.13	0.03	1737.00	
24000.	5916.	14306.	3778.	6075.	1660.	3133.	1844.	887.	1737.60	
0.59	0.97	8.62	1.21	0.114	0.045	0.100	0.000	1724.20	3618.42	
0.004028	992.	992.	992.	7	21	0	0.00	7586.72	12745.16	

FLOW DISTRIBUTION FOR SECNO= 4.42 CHSEL= 1737.41

STA=	3618.	3880.	6450.	8150.	9935.	10132.	11580.	12365.	12745.
PER Q=	3.5	13.8	6.2	1.1	59.6	8.0	6.9	0.8	
AREA=	330.0	3635.4	1863.3	245.9	1659.5	1597.2	1267.4	268.9	
VEL=	2.5	3.9	0.8	1.1	8.6	1.2	1.3	0.7	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982

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  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*****************************************************

T1       CCRFCD/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       LAS VEGAS WASH - 500-YEAR (D/S REACH)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        3.        0.        0.  0.000000      0.00      0.5        0.  1702.200     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
   15.000     3.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      ANL       ANCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCRAR     TOPWID      ENDST

*PROF 2

CCHV=   0.100 CEHV=   0.300
*SECNO 2.230

3265 DIVIDED FLOW

                SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 2586
     2.23      14.10  1702.20      0.00  1702.20   1702.78      0.58      0.00      0.00  1696.00
    84000.     39168.    24230.    20601.     5961.     3208.    13393.        0.        0.  1694.00
     0.00       6.57      7.55      1.54     0.030     0.035     0.100     0.000  1688.20  1519.75
 0.001256          0.        0.        0.         0         0         0      0.00  5180.63  6701.98

*SECNO 2.270

3265 DIVIDED FLOW

                CENTERLINE STATION AT 2219
     2.27      14.10  1702.60      0.00      0.00  1703.01      0.41      0.21      0.02  1695.30
    84000.     35510.    17256.    31234.     6749.     2198.    14081.      92.       20.  1693.50
     0.01       5.26      7.85      2.22     0.030     0.030     0.060     0.000  1688.50   951.71
 0.000968        220.      203.      150.         2         0         0      0.00  5421.54  6400.12

CCHV=   0.300 CEHV=   0.500
*SECNO 2.284

3265 DIVIDED FLOW

                CENTERLINE STATION AT 2323
     2.28      15.86  1702.66      0.00      0.00  1703.13      0.46      0.09      0.03  1695.00
    84000.     35879.    19666.    28455.     7048.     2287.    13921.      145.      33.  1695.00
     0.02       5.09      8.60      2.04     0.030     0.030     0.060     0.000  1686.80  1020.43
 0.000859          1.      100.      100.         3         0         0      0.00  5427.23  6475.65

*SECNO 2.285

3265 DIVIDED FLOW

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  5-MAY-88    12:54:14                                                                    PAGE   20
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

CENTERLINE STATION AT 2323

2.29	15.99	1702.79	0.00	0.00	1703.16	0.37	0.00	0.03	1695.00
84000.	43387.	5716.	34897.	7196.	969.	14449.	146.	33.	1695.00
0.02	6.03	5.90	2.42	0.030	0.030	0.060	0.000	1686.80	1013.47
0.001180	1.	1.	1.	2	0	0	-1380.67	5507.13	6545.81

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1702.79

STA=	1013.	1450.	2000.	2248.	2397.	2655.	2852.	3685.	5070.	6546.
PER Q=	5.7	30.5	15.4	6.8	7.2	6.1	17.9	7.8	2.6	
AREA=	1253.9	4010.1	1932.2	969.0	1881.1	1528.6	5094.3	3885.7	2059.5	
VEL=	3.8	6.4	6.7	5.9	3.2	3.3	2.9	1.7	1.1	

*SECNO 2.301

3265 DIVIDED FLOW

337 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

**** VEGAS VALLEY DRIVE (NB) ****
2' DEBRIS LOADING
CENTERLINE STATION AT 2323

2.30	16.11	1702.91	0.00	0.00	1703.26	0.35	0.10	0.01	1695.00
84000.	42171.	7673.	34226.	7362.	1190.	14967.	192.	44.	1695.00
0.02	5.72	6.45	2.29	0.030	0.030	0.060	0.000	1686.80	1007.11
0.001040	87.	87.	87.	2	0	0	-895.71	5580.04	6609.84

FLOW DISTRIBUTION FOR SECNO= 2.30 CWSEL= 1702.91

STA=	1007.	1450.	2000.	2250.	2395.	2655.	2852.	3685.	5070.	6610.
PER Q=	5.7	29.5	14.9	9.1	7.0	5.9	17.3	7.5	2.7	
AREA=	1307.2	4076.7	1978.1	1189.5	1527.2	1552.5	5192.2	4053.4	2242.1	
VEL=	3.7	6.1	6.3	6.5	3.0	3.2	2.8	1.6	1.0	

*SECNO 2.302

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

CENTERLINE STATION AT 2323

2.30	16.08	1702.88	0.00	0.00	1703.29	0.42	0.00	0.04	1695.00
84000.	35835.	19040.	29075.	7319.	2319.	14822.	192.	44.	1695.00
0.02	4.90	8.21	1.96	0.030	0.030	0.060	0.000	1686.80	1008.93
0.000769	1.	1.	1.	2	0	0	0.00	5559.09	6591.45

*SECNO 2.310

3265 DIVIDED FLOW

CENTERLINE STATION AT 2240

2.31	13.87	1702.87	0.00	0.00	1703.40	0.54	0.05	0.06	1698.00
84000.	26876.	23288.	33835.	4838.	2608.	13516.	218.	50.	1694.20
0.03	5.56	8.93	2.50	.030	0.030	0.060	0.000	1689.00	849.54
0.001356	50.	50.	50.	3	0	0	0.00	5256.37	6394.26

CCHV= 0.100 CEHV= 0.300
*SECNO 2.330

3265 DIVIDED FLOW

CENTERLINE STATION AT 2240

2.33	14.25	1703.25	0.00	0.00	1703.54	0.29	0.11	0.02	1698.00
84000.	15192.	18593.	50215.	5248.	2708.	15076.	271.	63.	1694.20
0.03	2.89	6.93	3.33	0.045	0.030	0.035	0.000	1689.00	829.36
0.000770	125.	110.	95.	2	0	0	0.00	5474.51	6582.62

*SECNO 2.540

CENTERLINE STATION AT 2872

2.54	14.13	1704.13	0.00	0.00	1704.62	0.49	1.03	0.06	1695.20
84000.	24702.	23403.	35895.	9171.	2385.	13775.	632.	197.	1695.30
0.09	2.69	9.81	2.61	0.060	0.030	0.050	0.000	1690.00	782.45
0.001355	12 .	1116.	900.	2	0	0	.00	6422.06	7204.52

*SECNO 2.780

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCH	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TCF&IC	ENDST

1645 INT SEC ADDED BY RAISING SEC 2.78, -0.450FT AND MULTIPLYING BY 1.622

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	15.17	1705.62	1705.62	0.00	1706.64	1.02	.94	0.16	1704.75
84000.	18256.	26035.	39709.	8958.	1868.	12335.	1096.	281.	1702.25
0.12	2.04	13.93	3.22	0.060	0.030	0.050	0.000	1690.45	949.55
0.002693	475.	620.	450.	20	9	0	0.00	9345.24	10258.79

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1705.62

STA=	950.	3439.	5484.	5544.	5683.	5956.	6494.	6869.	7072.	8225.	9150.	10299.
PER Q=	11.1	10.5	0.2	31.0	3.1	7.7	7.1	3.9	13.7	9.5	2.2	
AREA=	4644.1	4225.4	88.1	1868.4	808.7	1847.1	1524.2	824.8	3537.8	2605.1	1187.0	
VEL=	2.0	2.1	1.7	13.9	3.2	3.5	3.5	3.5	3.3	3.1	1.6	

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.450FT AND MULTIPLYING BY 0.616

CENTERLINE STATION AT 3462

2.78	16.33	1707.23	0.00	0.00	1708.00	0.78	1.34	0.02	1705.20
84000.	24100.	17476.	42417.	8930.	1252.	11162.	1338.	365.	1702.70
0.14	2.70	13.96	3.80	0.060	0.030	0.050	0.000	1690.90	415.80
0.002654	475.	620.	450.	5	0	0	0.00	6332.47	6748.28

FLOW DISTRIBUTION FOR SECNO= 2.78 CWSEL= 1707.23

STA=	416.	2120.	2460.	3380.	3417.	3503.	3671.	4003.	4234.	4359.	5070.	5640.	6748.
PER Q=	14.9	3.5	10.0	0.3	20.8	3.3	7.7	6.6	3.6	14.4	10.4	4.5	
AREA=	4755.4	1067.8	3109.3	97.5	1252.2	694.8	1526.6	1209.5	654.5	3011.7	2271.9	1793.1	
VEL=	2.6	2.8	2.8	2.4	14.0	3.9	4.2	4.6	4.6	4.0	3.8	2.1	

1490 NH CARD USED
*SECNO 3.040

SECNO	DEPTH	C&SEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCF&IC	ENDST

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.04	14.95	1710.75	0.00	0.00	1711.32	0.57	3.29	0.02	1709.30
84000.	65167.	17394.	1439.	12334.	2043.	1055.	1740.	491.	1709.50
0.19	5.28	8.51	1.36	0.245	0.050	0.073	0.000	1695.80	5816.35
0.004348	600.	1380.	1450.	3	0	0	0.03	5275.22	11525.67

FLOW DISTRIBUTION FOR SECNO= 3.04 C&SEL= 1710.75

STA=	5816.	7208.	7323.	7453.	7573.	9473.	9918.	10138.	11526.
PER Q=	38.9	7.2	8.1	4.2	26.5	0.7	20.7	1.7	
AREA=	4659.7	775.8	877.0	569.5	5217.3	234.4	2043.2	1055.0	
VEL=	5.6	7.8	7.8	6.1	4.3	2.7	8.5	1.4	

*SECNO 3.256

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.26	6.85	1713.65	0.00	0.00	1713.92	0.27	2.58	0.03	1714.30
84000.	76643.	3407.	3750.	18206.	942.	1140.	2091.	600.	1714.70
0.25	4.22	3.62	3.29	0.045	0.050	0.045	0.000	1706.80	5288.40
0.002205	800.	1144.	1250.	5	0	0	0.00	5360.59	11128.42

FLOW DISTRIBUTION FOR SECNO= 3.26 C&SEL= 1713.65

STA=	5288.	6620.	6775.	6920.	8135.	9410.	9804.	10103.	10655.	11128.
PER Q=	20.5	5.1	4.8	40.2	20.4	0.4	4.1	3.2	1.2	
AREA=	4716.7	875.9	819.4	6866.1	4655.2	273.5	941.8	636.3	503.9	
VEL=	3.7	4.9	4.9	4.9	3.7	1.3	3.6	4.3	2.0	

*SECNO 3.262

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.26	6.93	1713.73	0.00	0.00	1713.99	0.26	0.06	0.00	1714.30
84000.	76803.	3397.	3800.	18563.	960.	1195.	2105.	604.	1714.70
0.25	4.14	3.54	3.18	0.045	0.050	0.045	0.000	1706.80	5285.92
0.002077	30.	30.	30.	2	0	0	0.00	5428.81	11149.25

SECNO	DEPTH	C&SEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCF&IC	ENDST

CCH&= 0.300 CEHV= 0.500
*SECNO 3.274

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

**** WATER&COD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.27	5.85	1713.85	0.00	0.00	1714.11	0.26	0.12	0.00	1714.00
64000.	78894.	1072.	4035.	19153.	588.	1317.	2133.	612.	1714.00
0.25	4.12	1.82	3.06	0.045	0.050	0.045	0.000	1708.00	5282.04
0.001999	58.	63.	68.	3	0	0	-165.29	5529.56	11181.84

FLOW DISTRIBUTION FOR SECNO= 3.27 C&SEL= 1713.85

STA=	5282.	6620.	6775.	6920.	8135.	9410.	9899.	10100.	10655.	11182.
PER Q=	21.4	5.2	4.8	40.6	21.2	0.6	1.3	3.4	1.4	
AREA=	4987.6	907.5	848.9	7113.4	4514.6	381.3	587.7	711.7	605.6	
VEL=	3.5	4.8	4.8	4.8	3.6	1.4	1.8	4.0	2.0	

*SECNO 3.280

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.28	7.17	1713.97	0.00	0.00	1714.20	0.23	0.08	0.01	1714.30
64000.	76660.	3367.	3964.	19666.	1016.	1375.	2155.	617.	1714.70
0.25	3.90	3.32	2.88	0.045	0.050	0.045	0.000	1706.80	5278.30
0.001735	43.	43.	53.	2	0	0	0.00	5537.93	11213.30

CCH&= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.470

1645 INT SEC ADDED BY RAISING SEC 3.47, -1.500FT AND MULTIPLYING BY 1.402

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	QLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCF&IC	ENDST

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.01	6.33	1714.63	0.00	0.00	1715.48	0.85	1.09	0.19	1715.80
84000.	72019.	10266.	1716.	13780.	656.	190.	2292.	663.	1710.10
0.27	5.23	15.64	9.05	0.045	0.023	0.028	0.000	1708.30	5693.09
0.000866	319.	488.	500.	3	0	0	0.00	6610.24	12873.40

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1714.63

STA=	5693.	8272.	8454.	11974.	12568.	12781.	12873.
PER Q=	33.1	7.1	45.4	0.1	12.2	2.0	

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     AREA=    5477.1     753.6    7511.1      38.4     656.3     189.6
      VEL=       5.1       7.9       5.1       3.1      15.6       9.1

 1645 INT SEC ADDED BY RAISING SEC      1.01,   1.500FT AND MULTIPLYING BY    0.713

 3265 DIVIDED FLOW

                  CENTERLINE STATION AT 10000
       3.47      7.28  1717.38      0.00      0.00  1717.76      0.68      0.26      0.02  1716.50
     84000.     74263.     8860.     1677.    14185.      575.      286.     2401.      708.   1711.60
       0.26      5.24     14.33      5.87     0.045     0.023     0.030     0.000   1709.80   4937.54
  0.005481       310.      488.      500.         2         0         0      0.00   5350.95  10662.35
0
 FLOW DISTRIBUTION FOR SECNO=       3.47            CWSEL=    1717.08

 STA=     4938.     6841.     6970.     9480.     9942.    10056.    10662.
   PER Q=    34.7       5.7      47.5       0.6       9.6       2.0
     AREA=  5663.4     659.6    7714.5     147.2     574.6     285.8
      VEL=     5.1       7.2       5.2       3.4      14.0       5.9

 *SECNO 3.490

 3265 DIVIDED FLOW

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                  CENTERLINE STATION AT 10000
       3.49      8.43  1717.83      0.00      0.00  1718.23      0.40      0.44      0.03  1716.50
     84000.     75029.     7098.     1874.    17935.      661.      670.     2449.      723.   1711.60
       0.29      4.18     10.74      2.80     0.045     0.023     0.040     0.003   1709.80   4886.43
  0.002666       120.      120.      120.         3         0         0      0.00   5729.69  10738.07
0
 CCHV=   0.300 CEHV=    0.500
 1490 NH CARD USED
 *SECNO 3.506

 3265 DIVIDED FLOW


 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

                  **** WINTERWOOD GOLF COURSE BRIDGE #2**
                  2* DEBRIS LOADING
                  SINGLE CROSS SECTION NORMAL BRIDGE
                  CENTERLINE STATION AT 10000
       3.51      6.22  1718.22      0.00      0.00  1718.48      0.25      0.20      0.04  1718.00
     84000.     81246.     1191.     1573.    19919.      344.      857.     2487.      734.   1718.00
       0.30      4.08      3.44      1.83     0.045     0.023     0.052     0.000   1712.00   4859.84
  0.002236        84.       84.       84.         3         0         0   -191.93   5811.65  10777.46
0
 FLOW DISTRIBUTION FOR SECNO=       3.51            CWSEL=    1718.22

 STA=     4860.     6841.     6970.     9480.     9952.    10048.    10777.
   PER Q=    37.9       5.1      51.5       2.2       1.4       1.9
     AREA=  7898.1     809.2   10603.8     608.1     243.7     857.4
      VEL=     4.0       5.3       4.1       3.0       3.4       1.8

 1490 NH CARD USED
 *SECNO 3.510

 3265 DIVIDED FLOW

                  CENTERLINE STATION AT 10000
       3.51      8.49  1718.29      0.00      0.00  1718.69      0.30      0.09      0.02  1716.50
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   84000.    75315.     6660.     2026.    20263.      713.      942.     2589.      740.    1711.60
     0.30      3.72      9.34      2.15     0.045     0.023     0.046     0.000  1709.80    4855.44
 0.001820       44.       44.       44.         4         0         0      0.00  5825.21   10783.98

CCHV=   0.10  CEHV=   0.300
1490 NH CARD USED
*SECNO 3.690
1
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    SECNO      DEPTH     C*SEL     CRIWS     *SELK      EG        HV        HL        CLOSS    BANK ELEV
    6          QLOB      QCH       QROB      ALOB       ACH       ARCB      VCL       TWA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICCNT     CORAR     ICPNIC      ENDST


 1645 INT SEC ADDED BY RAISING SEC      3.69,  -2.700FT AND MULTIPLYING BY    0.730

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED *SEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
      1.01      7. 9  1719.59  1719.59      0.07  1720.99      1.39      1.68      0.33  1717.60
    84000.    70173.    13672.      155.    9493.      831.      120.     2685.      791.    1721.10
      0.31      7.39      16.46     1.29    0.045     0.023     0.110     0.000  1712.50    4690.54
  0.009771       475.      464.      425.       20         5         0      0.00  3665.85    8653.80
0
 FLOW DISTRIBUTION FOR SECNO=      1.01          CWSEL=   1719.59

 STA=     4691.     5835.     5976.     6407.     6907.     7826.     8247.     8484.     8654.
   PER Q=    33.1       7.6      19.0       7.7      13.8       2.3      16.3       0.2
     AREA=  3562.9    574.0    1848.3    1146.4    2059.2     302.0     837.7     120.3
      VEL=     7.5      11.1       8.6       5.7       5.8       6.4      16.5       1.3

 1645 INT SEC ADDED BY RAISING SEC      1.01,   2.700FT AND MULTIPLYING BY    1.371

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS

                  CENTERLINE STATION AT 10000
      3.69      7.73  1722.93      0.00      0.00  1723.40      0.47      2.32      0.09  1720.30
    84000.    71207.    12541.      252.    15993.     1320.      294.     2837.      840.    1723.80
      0.34      4.45      9.50      0.86    0.045     0.023     0.110     0.000  1715.20    4833.45
  0.002951       475.      454.      425.        2         0         0      0.00  5332.31   10488.51
0
 FLOW DISTRIBUTION FOR SECNO=      3.69          CWSEL=   1722.93

 STA=     4833.     5705.     6660.     6785.     7375.     8060.     9320.     9897.    10222.    10489.
   PER Q=     3.5      23.1       6.7      16.0       8.8      15.7       2.9      14.9       0.3
     AREA=  1276.8    4707.7    866.2    2978.4    2006.8    3623.3     603.8    1319.6     294.0
      VEL=     2.3       5.2       6.5       5.2       3.7       3.6       4.1       9.5       0.9

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    SECNO      DEPTH     CWSEL     CRIWS     *SELK      EG        HV        HL        CLOSS    BANK ELEV
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 3.860

1645 INT SEC ADDED BY RAISING SEC 3.86, -2.667FT AND MULTIPLYING BY 1.292

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	7.83	1724.36	1724.36	0.00	1725.27	0.91	1.32	0.13	1722.33
84000.	53551.	18345.	12103.	15263.	1210.	6013.	2981.	892.	1724.53
0.35	3.51	15.16	2.11	0.066	0.023	0.108	0.000	1716.53	5269.31
0.006524	317.	303.	293.	20	5	0	0.00	9147.81	14970.74

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1724.36

STA=	5269.	6674.	6849.	7883.	10422.	11332.	11421.	11566.	11819.	12065.	14403.	14971.
PER Q=	8.9	3.5	20.8	17.7	4.9	3.2	3.2	1.5	21.8	12.9	1.5	
AREA=	2127.9	528.6	3132.6	7694.4	886.1	288.0	338.5	267.4	1210.1	5152.6	860.1	
VEL=	3.5	5.6	5.6	1.9	4.7	9.4	7.9	4.6	15.2	2.1	1.4	

1645 INT SEC ADDED BY RAISING SEC 1.01, 1.333FT AND MULTIPLYING BY 0.887

3265 DIVIDED FLOW

1.02	8.43	1726.30	0.00	0.00	1726.94	0.64	1.64	0.03	1723.67
84000.	55019.	15990.	12991.	16867.	1203.	6837.	3149.	954.	1725.87
0.37	3.26	13.29	1.90	0.065	0.023	0.105	0.000	1717.87	4816.30
0.004369	317.	303.	293.	2	0	0	0.00	8561.11	13764.01

FLOW DISTRIBUTION FOR SECNO= 1.02 CWSEL= 1726.30

STA=	4816.	6307.	6462.	7379.	9631.	10438.	10517.	10646.	10870.	11088.	12061.	13161.	13764.
PER Q=	10.4	3.4	20.4	17.3	5.3	3.1	3.3	2.2	19.0	3.7	10.0	1.7	
AREA=	2702.1	561.3	3324.3	8165.3	1064.5	302.5	376.7	370.9	1202.7	1755.2	3989.1	1092.2	
VEL=	3.2	5.2	5.2	1.8	4.2	8.6	7.4	5.0	13.3	1.8	2.1	1.3	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1645 INT SEC ADDED BY RAISING SEC 1.02, 1.333FT AND MULTIPLYING BY 0.872

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.86	8.49	1727.69	0.00	0.00	1728.48	0.79	1.50	0.04	1725.00
84000.	55158.	15758.	13084.	15066.	1063.	6122.	3317.	1011.	1727.20
0.39	3.66	14.83	2.14	0.065	0.023	0.105	0.000	1719.20	4614.48
0.005358	317.	303.	293.	2	0	0	0.00	7515.43	12455.75

FLOW DISTRIBUTION FOR SECNO= 3.86 CWSEL= 1727.69

STA=	4614.	594.	6175.	6875.	8840.	9544.	9613.	9725.	9921.	10111.	10960.	11920.	12456.
PER Q=	16.5	3.4	20.3	17.3	5.3	3.1	3.3	2.3	18.8	3.8	10.0	1.8	
AREA=	2448.3	498.8	2955.9	7260.3	959.4	268.7	336.4	337.2	1062.5	1585.6	3547.0	989.8	
VEL=	3.6	5.8	5.8	2.0	4.7	9.6	8.3	5.7	14.8	2.0	2.4	1.5	

1494 NH CARD USED
*SECNO 4.040

1645 INT SEC ADDED BY RAISING SEC 4.04, -1.350FT AND MULTIPLYING BY 1.015

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	12.22	1731.87	1731.87	0.00	1733.07	1.20	1.14	0.12	1727.85	
84000.	15371.	26626.	42004.	9151.	1758.	14794.	3448.	1059.	1729.55	
0.40	1.63	15.14	2.84	0.094	0.028	0.089	0.000	1719.65	4500.79	
0.004239	250.	240.	225.	23	14	0	0.00	9703.80	14204.59	

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1731.87

STA=	4501.	8411.	9573.	10007.	10197.	10500.	10998.	12530.	13596.	14205.
PER Q=	5.2	7.2	5.9	31.7	4.1	3.4	21.3	19.2	2.0	
AREA=	4490.4	3741.8	918.5	1758.4	976.5	1687.5	7998.5	3431.3	700.1	
VEL=	1.	1.6	5.4	15.1	3.5	1.7	2.2	4.7	2.4	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.450FT AND MULTIPLYING BY 0.995

3301 HV CHANGED MORE THAN HWINS

1.02	13.16	1733.26	0.00	0.00	1733.80	0.53	.66	0.07	1728.30
84000.	20056.	21331.	42613.	14386.	1926.	18470.	3611.	1113.	1730.00
0.41	1.39	11.07	2.31	0.095	0.028	0.085	0.000	1720.10	4141.23
0.001996	250.	240.	225.	4	0	0	0.00	10066.08	14207.30

FLOW DISTRIBUTION FOR SECNO= 1.02 CWSEL= 1733.26

STA=	4141.	8388.	9544.	9889.	9976.	10165.	10384.	10962.	12487.	13547.	14082.	14207.
PER Q=	9.7	7.5	3.7	2.9	25.4	3.2	4.8	19.2	20.0	3.4	0.2	
AREA=	8265.8	4802.7	917.5	399.8	1926.2	665.2	2730.4	9382.9	4404.2	1152.8	134.7	
VEL=	1.0	1.3	3.4	6.1	11.1	4.0	1.5	1.7	3.8	2.5	1.5	

1645 INT SEC ADDED BY RAISING SEC 1.02, 0.450FT AND MULTIPLYING BY 0.995

1.03	13.19	1733.74	0.00	0.00	1734.26	0.52	0.47	0.00	1728.75
84000.	20200.	21131.	42620.	14506.	1923.	18513.	3800.	1169.	1730.45
0.43	1.39	11.01	2.30	0.095	0.028	0.084	0.000	1720.55	4125.54
0.001966	250.	240.	225.	2	0	0	0.00	10031.93	14157.47

FLOW DISTRIBUTION FOR SECNO= 1.03 CWSEL= 1733.74

STA=	4126.	8364.	9514.	9858.	9944.	10132.	10304.	10926.	12443.	13499.	14031.	14157.
PER Q=	9.9	7.6	3.7	2.9	25.2	3.0	5.0	19.1	20.0	3.4	0.3	
AREA=	8364.1	4817.1	924.3	400.7	1923.1	531.1	2874.1	9387.3	4417.4	1164.6	138.1	

VEL=	1.0	1.3	3.4	6.1	11.0	4.8	1.5	1.7	3.8	2.5	1.6

1645 INT SEC ADDED BY RAISING SEC 1.03, 0.450FT AND MULTIPLYING BY 0.995

CENTERLINE STATION AT 10000

4.04	13.20	1734.20	0.00	0.00	1734.72	0.53	0.46	0.00	1729.20
84000.	20226.	21153.	42621.	14471.	1915.	18447.	3990.	1224.	1730.90
0.44	1.40	11.05	2.31	0.095	0.026	0.084	0.000	1721.00	4119.98
0.001976	253.	240.	225.	1	0	0	0.00	9986.11	14106.08

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SECNO	DEPTH	CHSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XAR	WTA	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPHIC	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.14 CWSEL= 1734.20

STA=	4126.	8340.	9485.	9827.	9913.	10100.	10271.	10890.	12400.	13450.	13980.	14106.
PER Q=	9.9	7.6	3.7	2.9	25.2	3.0	5.0	19.1	20.0	3.4	0.3	
AREA=	8348.9	4800.7	921.9	399.3	1914.9	529.6	2863.9	9351.1	4402.4	1162.2	136.2	
VEL=	1.0	1.3	3.4	6.1	11.0	4.8	1.5	1.7	3.8	2.5	1.6	

1490 NH CARD USED
*SECNO 4.230

1645 INT SEC ADDED BY RAISING SEC 4.23, -1.000FT AND MULTIPLYING BY 0.869

1.01	13.34	1735.34	0.00	0.00	1736.26	0.92	1.41	0.12	1731.40
84000.	18849.	28731.	36420.	7474.	2296.	12022.	4319.	1337.	1732.60
0.47	2.52	12.51	3.03	0.065	0.030	0.080	0.000	1722.00	3752.71
0.004299	551.	510.	475.	2	0	0	0.00	8967.19	12759.90

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1735.34

STA=	3793.	6878.	7543.	8933.	9073.	9375.	9532.	9696.	9908.	11695.	12621.	12760.
PER Q=	4.5	3.5	9.7	4.7	34.2	6.8	6.8	7.9	18.4	3.4	0.0	
AREA=	3273.0	1887.1	1800.8	512.8	2296.1	618.1	664.6	793.3	7755.2	2167.2	23.7	
VEL=	1.2	1.6	4.5	7.7	12.5	9.2	8.6	8.4	2.0	1.3	0.2	

1645 INT SEC ADDED BY RAISING SEC 1.01, 1.000FT AND MULTIPLYING BY 1.150

CENTERLINE STATION AT 10000

4.23	14.15	1737.13	0.00	0.00	1737.56	0.43	1.26	0.05	1732.40
84000.	30956.	26167.	26877.	13390.	2914.	17032.	4640.	1454.	1733.60
0.51	2.31	8.98	1.58	0.050	0.042	0.104	0.000	1723.00	3771.16
0.001608	550.	510.	475.	3	0	0	0.00	10738.23	14509.38

FLOW DISTRIBUTION FOR SECNO= 4.23 CWSEL= 1737.13

STA=	3771.	7375.	7565.	8140.	9738.	9900.	10247.	10628.	12915.	13980.	14509.
PER Q=	6.3	5.1	6.8	13.2	4.9	31.2	3.1	23.6	5.1	0.1	
AREA=	6574.3	974.0	1797.6	3326.9	717.1	2913.6	1842.4	11561.7	3329.6	298.1	
VEL=	0.9	4.4	3.2	3.3	5.7	9.0	1.4	1.7	1.3	0.4	

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SECNO	DEPTH	CHSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XAR	WTA	ELPIN	SSTA

1490 NH CARD USED
*SECNO 4.420

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

4.42	15.41	1739.61	0.00	0.00	1740.17	0.56	2.57	0.04	1737.00
84000.	40029.	22826.	21145.	18508.	2092.	9443.	5361.	1687.	1737.60
0.56	2.16	10.31	2.24	0.103	0.045	0.100	0.000	1724.20	3530.61
0.004841	992.	992.	992.	4	0	0	0.00	9693.48	13335.15

FLOW DISTRIBUTION FOR SECNO= 4.42 C&SEL= 1739.61

STA=	3531.	3880.	6450.	8050.	9684.	9935.	10132.	10750.	11580.	12365.	13335.
PER Q=	5.8	20.7	11.4	8.4	1.4	27.2	3.5	5.5	9.0	3.2	
AREA=	1000.6	9277.3	5375.8	2540.3	314.2	2091.7	1539.1	3162.1	2990.7	1751.1	
VEL=	4.9	1.9	1.8	2.8	3.6	10.9	1.9	2.5	2.5	1.5	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	C&SEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.230	0.00	0.00	0.00	1688.20	24000.00	1698.80	0.00	1699.04	7.46	4.59	7202.66	8786.16
2.230	0.00	0.00	0.00	1688.20	84000.00	1702.20	0.00	1702.78	12.56	7.55	22562.48	23704.23
2.270	203.00	0.00	0.00	1688.50	24000.00	1698.88	0.00	1699.28	12.05	6.76	5953.55	6913.30
2.270	203.00	0.00	0.00	1688.50	84000.00	1702.69	0.00	1703.01	9.68	7.85	23027.30	26993.00
2.284	100.00	0.00	0.00	1686.80	24000.00	1698.97	0.00	1699.38	7.50	6.73	6455.68	8761.56
2.284	100.00	0.00	0.00	1686.80	84000.00	1702.66	0.00	1703.13	8.59	8.60	23256.70	28660.72
2.285	1.00	1695.00	1696.00	1686.80	24000.00	1698.97	0.00	1699.38	24.65	4.72	5093.19	4833.55
2.285	1.00	1695.00	1696.00	1686.80	84000.00	1702.79	0.00	1703.16	11.80	5.90	22614.45	24457.45
2.301	87.00	1693.10	1696.00	1686.80	24000.00	1699.25	0.00	1699.58	16.13	5.42	5758.79	5975.23
2.301	87.00	1693.10	1696.00	1686.80	84000.00	1702.91	0.00	1703.26	10.40	6.45	23518.90	26043.65
2.302	1.00	0.00	0.00	1686.80	24000.00	1699.24	0.00	1699.59	6.32	6.27	6887.18	9549.94
2.302	1.00	0.00	0.00	1686.80	84000.00	1702.88	0.00	1703.29	7.69	8.21	24459.66	30290.94
2.310	50.00	0.00	0.00	1685.00	24000.00	1699.15	0.00	1699.79	18.74	7.96	4979.15	5543.96
2.310	50.00	0.00	0.00	1685.00	84000.00	1702.87	0.00	1703.40	13.56	8.93	20961.22	22810.55
2.330	110.00	0.00	0.00	1685.00	24000.00	1699.51	0.00	1699.98	13.48	6.97	5490.92	6535.96
2.330	110.00	0.00	0.00	1685.00	84000.00	1703.25	0.00	1703.54	7.70	6.89	23023.79	30268.07

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	2.540	1116.00	0.00	0.00	1690.00	24000.00	1700.87	0.00	1701.93	19.79	9.71	5202.22	5394.35
	2.540	1116.00	0.00	0.00	1690.00	84000.00	1704.13	0.00	1704.62	13.55	9.81	25330.62	22820.06
*	2.780	1240.00	0.00	0.00	1690.90	24000.00	1706.24	1706.24	1707.34	19.02	11.27	7179.78	5502.57
*	2.780	1240.00	0.00	0.00	1690.90	84000.00	1707.23	0.00	1708.00	26.54	13.96	21344.34	16306.76
	3.040	1380.00	0.00	0.00	1695.80	24000.00	1708.58	0.00	1709.18	17.94	4.96	7670.68	5666.76
	3.040	1380.00	0.00	0.00	1695.80	84000.00	1710.75	0.00	1711.32	43.48	8.51	15431.84	12739.12

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	3.256	1144.00	0.00	0.00	1706.80	24000.00	1710.95	0.00	1711.09	26.78	2.66	7978.14	4637.35
	3.256	1144.00	0.00	0.00	1706.80	84000.00	1713.65	0.00	1713.92	22.05	3.62	20288.02	17886.92
	3.262	30.00	0.00	0.00	1706.80	24000.00	1711.04	0.00	1711.17	24.06	2.57	8286.25	4892.56
	3.262	30.00	0.00	0.00	1706.80	84000.00	1713.73	0.00	1713.99	20.77	3.54	20716.85	18431.96
*	3.274	63.25	1714.00	1713.00	1708.00	24000.00	1712.05	1712.05	1712.11	7.94	1.50	12278.41	8517.56
	3.274	63.25	1714.00	1713.00	1708.00	84000.00	1713.85	0.00	1714.11	19.99	1.82	21058.35	18786.52
	3.280	43.25	0.00	0.00	1706.80	24000.00	1712.09	0.00	1712.14	7.37	1.72	12609.97	8843.16
	3.280	43.25	0.00	0.00	1706.80	84000.00	1713.97	0.00	1714.20	17.35	3.32	22056.23	20168.93
*	3.470	976.00	0.00	0.00	1709.80	24000.00	1714.91	1714.91	1715.56	76.73	12.71	5364.08	2739.79
*	3.470	976.00	0.00	0.00	1709.80	84000.00	1717.08	0.00	1717.76	54.81	14.03	15045.03	11345.77
	3.490	120.00	0.00	0.00	1709.80	24000.00	1715.84	0.00	1716.03	20.56	7.39	9043.65	5292.97
	3.490	120.00	0.00	0.00	1709.80	84000.00	1717.83	0.00	1718.23	26.66	10.74	19265.20	16269.47
*	3.506	84.00	1718.00	1716.00	1712.20	24000.00	1716.83	1716.83	1716.88	6.89	2.39	13485.33	9140.22
	3.506	84.00	1718.00	1716.00	1712.00	84000.00	1718.22	0.00	1718.48	22.38	3.44	21120.21	17757.05
	3.510	44.00	0.00	0.00	1709.80	24000.00	1716.85	0.00	1716.91	5.70	4.39	13862.33	10049.76
	3.510	44.00	0.00	0.00	1709.80	84000.00	1718.29	0.00	1718.59	18.20	9.34	21917.67	19687.74
*	3.690	908.00	0.00	0.00	1715.20	24000.00	1720.21	1720.21	1720.82	52.89	10.11	4976.63	3300.25
*	3.690	908.00	0.00	0.00	1715.20	84000.00	1722.93	0.00	1723.40	29.51	9.50	17606.33	15462.52
*	3.860	908.00	0.00	0.00	1719.20	24000.00	1725.85	1725.85	1726.48	43.38	10.82	9673.38	3643.79
*	3.860	908.00	0.00	0.00	1719.20	84000.00	1727.69	0.00	1728.48	53.58	14.83	22250.44	11475.95
*	4.040	960.00	0.00	0.00	1721.00	24000.00	1730.84	1730.84	1731.84	30.71	10.59	8868.65	4331.16
•	4.040	960.00	0.00	0.00	1721.00	84000.00	1734.20	0.00	1734.72	19.76	11.05	34832.93	18896.16
*	4.230	1020.00	0.00	0.00	1723.00	24000.00	1733.91	1733.91	1734.95	25.38	9.59	8693.41	4764.25
•	4.230	1020.00	0.00	0.00	1723.00	84000.00	1737.13	0.00	1737.56	16.08	8.98	33335.81	20944.59
	4.420	992.00	0.00	0.00	1724.20	24000.00	1737.41	1737.36	1738.11	40.28	8.62	10867.50	3781.45
	4.420	992.00	0.00	0.00	1724.20	84000.00	1739.61	0.00	1740.17	48.41	10.91	30042.93	12073.52

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.230	24000.00	1698.80	0.00	0.00	0.00	1385.82	0.00
2.230	84000.00	1702.20	3.40	0.00	0.00	5180.63	0.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2.278	24000.00	1658.88	0.00	0.08	0.00	1516.06	200.00
	2.278	84000.00	1702.60	3.72	0.40	0.00	5421.54	200.00
	2.284	24000.00	1698.97	0.00	0.09	0.00	1490.95	100.00
	2.284	84000.00	1702.66	3.70	0.06	0.00	5427.23	100.00
	2.285	24000.00	1698.97	0.00	0.00	0.00	1491.05	1.00
	2.285	84000.00	1702.79	3.82	0.13	0.00	5507.13	1.00
	2.301	24000.00	1699.25	0.00	0.29	0.00	1495.73	87.00
	2.301	84000.00	1702.91	3.66	0.12	0.00	5580.04	87.00
	2.302	24000.00	1699.24	0.00	-0.01	0.00	1499.61	1.00
	2.302	84000.00	1702.88	3.63	-0.03	0.00	5559.09	1.00
	2.310	24000.00	1699.15	0.00	-0.10	0.00	1433.60	50.00
	2.310	84000.00	1702.87	3.72	-0.01	0.00	5256.37	50.00
	2.330	24000.00	1699.51	0.00	0.36	0.00	1477.79	110.00
	2.330	84000.00	1703.25	3.74	0.38	0.00	5474.51	110.00
	2.540	24000.00	1700.87	0.00	1.37	0.00	2027.25	1116.00
	2.540	84000.00	1704.13	3.26	0.88	0.00	6422.06	1116.00
*	2.780	24000.00	1706.24	0.00	5.37	0.00	2942.80	1240.00
*	2.780	84000.00	1707.23	0.99	1.61	0.00	6332.47	1240.00
	3.040	24000.00	1708.98	0.00	2.74	0.00	3552.11	1380.00
	3.040	84000.00	1710.75	1.76	3.52	0.00	5275.22	1380.00
	3.256	24000.00	1710.95	0.00	1.97	0.00	3710.11	1144.00
	3.256	84000.00	1713.65	2.70	2.91	0.00	5360.59	1144.00
	3.262	24000.00	1711.04	0.00	0.09	0.00	3765.69	30.00
	3.262	84000.00	1713.73	2.69	0.08	0.00	5428.81	30.00
*	3.274	24000.00	1712.05	0.00	1.01	0.00	4393.82	63.25
	3.274	84000.00	1713.85	1.81	0.12	0.00	5529.96	63.25
	3.280	24000.00	1712.09	0.00	0.04	0.00	4456.60	43.25
	3.280	84000.00	1713.97	1.88	0.12	0.00	5537.93	43.25
*	3.470	24000.00	1714.31	0.00	2.82	0.00	3428.27	976.00
*	3.470	84000.00	1717.08	2.17	2.45	0.00	5350.95	976.00

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5-MAY-88 12:54:14

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	3.490	24000.00	1715.84	0.00	1.93	0.00	4497.40	120.00
	3.490	84000.00	1717.83	1.99	0.76	0.00	5729.69	120.00
•	3.506	24000.00	1716.83	0.00	0.99	0.00	4991.44	84.00
	3.506	84000.00	1718.22	1.40	0.39	0.00	5811.65	84.00
	3.510	24000.00	1716.35	0.00	0.02	0.00	5063.59	44.00
	3.510	84000.00	1718.29	1.44	0.06	0.00	5829.21	44.00
*	3.690	24000.00	1720.21	0.00	3.36	0.00	3854.18	908.00
*	3.690	84000.00	1722.93	2.72	3.33	0.00	5332.31	908.00
*	3.860	24000.00	1725.85	0.00	5.64	0.00	5891.12	908.00
*	3.860	84000.00	1727.69	1.85	1.39	0.00	7515.43	908.00
•	4.040	24000.00	1730.84	0.00	5.00	0.00	3964.11	960.00
*	4.040	84000.00	1734.20	3.36	0.46	0.00	9986.11	960.00

*	4.230	24000.00	1733.91	0.00	3.07	0.00	5006.15	1020.00
*	4.230	84000.00	1737.13	3.21	1.79	0.00	10738.23	1020.00
	4.420	24000.00	1737.41	2.00	3.50	0.00	7586.72	992.00
	4.420	84000.00	1739.61	2.20	2.48	0.00	9693.48	992.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	2.780	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	2.780	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	2.780	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	2.780	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	3.274	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.274	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.274	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.470	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.470	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.470	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.470	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	3.506	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.506	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.506	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.690	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.690	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.690	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.690	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	3.860	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.860	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.860	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	4.040	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	4.040	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	4.040	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	4.230	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	4.230	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	4.230	PROFILE= 2	INTERPOLATED XSECTIONS USED


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

151

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1*************************************************
*  WATER SURFACE PROFILES                       *
*  VERSION OF NOVEMBER 1976                     *
*  UPDATED AUGUST 1983                          *
*                                               *
*  RUN DATE  28-APR-88 TIME   13:43:35          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX                 XXXXX
X     X  X        X     X               X     X
X     X  X        X                     X     X
XXXXXXX  XXXX     X           XXXXX     XXXXX
X     X  X        X                     X
X     X  X        X     X               X
X     X  XXXXXXX   XXXXX                 XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - NONDIMAGING FLOWS (D/S REACH)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.000000      0.00      0.5       0.  1695.700     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.030     0.100     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      3.000  2500.000  2700.000  3000.000     0.000     0.000     0.000     0.000     0.000     0.000
               SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
               CENTERLINE STATION AT 250+
X1      2.230    38.000  2456.000  2740.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1716.000   900.000  1712.000  1110.000  1708.000  1250.000  1704.000  1450.000  1700.000  1605.000
GR   1696.000  1885.000  1692.000  1910.000  1692.000  1935.000  1693.700  2000.000  1694.400  2187.000
GR   1694.500  2353.000  1694.200  2420.000  1692.900  2429.000  1696.000  2456.000  1692.600  2482.000
GR   1692.600  2494.000  1688.200  2506.000  1689.300  2552.000  1689.800  2560.000  1689.700  2606.000
GR   1689.700  2628.000  1690.300  2646.000  1692.100  2660.000  1691.200  2689.000  1691.500  2701.000
GR   1694.000  2740.000  1692.300  3010.000  1690.200  3022.000  1692.700  3056.000  1702.300  3092.000
GR   1700.000  3120.000  1696.000  3130.000  1696.000  3980.000  1700.000  3985.000  1701.700  4020.000
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GR	1700.000	4360.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
NC	0.030	0.060	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 2219								
X1	2.270	38.000	2155.000	2345.000	220.000	150.000	203.000	0.000	0.000	0.000
GR	1716.000	1.000	1712.000	35.000	1708.000	225.000	1704.000	880.000	1700.000	1085.000
GR	1700.000	1200.000	1696.000	1350.000	1696.000	1500.000	1695.500	2000.000	1695.500	2032.000
GR	1694.500	2093.000	1693.900	2121.000	1696.300	2142.000	1695.300	2155.000	1693.400	2165.000
GR	1689.700	2175.000	1689.700	2210.000	1688.500	2219.000	1689.500	2252.000	1690.100	2277.000
GR	1693.100	2297.000	1693.100	2337.000	1693.500	2345.000	1694.100	2385.000	1694.700	2405.000
GR	1694.800	2550.000	1696.500	2600.000	1693.000	2760.000	1704.000	2930.000	1700.000	2945.000
GR	1696.000	2955.000	1696.000	3670.000	1700.000	3680.000	1700.000	5025.000	1704.000	7140.000
GR	1708.000	7380.000	1708.000	7590.000	1710.000	9105.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 2323								
X1	2.284	25.000	2250.000	2395.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000
		CENTERLINE STATION AT 2323								
X1	2.285	63.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2248.000	1695.000	1695.000	2249.900	1696.300	1686.800
BT	2396.100	1696.300	1686.800	2397.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2248.000	1692.300	2249.800
GR	1686.800	2249.900	1686.800	2263.800	1692.300	2263.900	1692.300	2264.500	1686.800	2264.600
GR	1686.800	2278.500	1692.300	2278.600	1692.300	2279.200	1686.800	2279.300	1686.800	2292.200
GR	1692.300	2293.300	1692.300	2293.900	1686.800	2294.000	1686.800	2307.900	1692.300	2308.800
GR	1692.300	2308.600	1686.800	2308.700	1686.800	2322.600	1692.300	2322.700	1692.300	2323.300
GR	1686.800	2323.400	1686.800	2337.300	1692.300	2337.400	1692.300	2338.000	1686.800	2338.100
GR	1686.800	2352.000	1692.300	2352.100	1692.300	2352.700	1686.800	2352.800	1686.800	2366.700
GR	1692.300	2366.800	1692.300	2367.400	1686.800	2367.500	1686.800	2381.400	1692.300	2381.500
GR	1692.300	2382.100	1686.800	2382.200	1686.800	2396.100	1692.300	2396.200	1695.000	2397.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

**** VEGAS VALLEY DRIVE (NB) ****
2' DEBRIS LOADING
CENTERLINE STATION AT 2323

X1	2.301	63.000	2250.000	2395.000	87.000	87.000	87.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2250.000	1695.000	1695.000	2251.900	1696.300	1686.800
BT	2394.100	1693.100	1686.800	2395.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1692.300	2251.800
GR	1686.800	2251.900	1686.800	2261.800	1692.300	2261.900	1692.300	2266.500	1686.800	2266.600
GR	1686.800	2276.500	1692.300	2276.600	1692.300	2281.200	1686.800	2281.300	1686.800	2291.200
GR	1692.300	2291.300	1692.300	2295.900	1686.800	2296.000	1686.800	2305.900	1692.300	2306.000
GR	1692.300	2310.600	1686.800	2310.700	1686.800	2320.600	1692.300	2320.700	1692.300	2325.300
GR	1686.800	2325.400	1686.800	2335.300	1692.300	2335.400	1692.300	2340.000	1686.800	2340.100
GR	1686.800	2350.000	1692.300	2350.100	1692.300	2354.700	1686.800	2354.800	1686.800	2364.700
GR	1692.300	2364.800	1692.300	2369.400	1686.800	2369.500	1686.800	2379.400	1692.300	2379.500
GR	1692.300	2384.100	1686.800	2384.200	1686.800	2394.100	1692.300	2394.200	1695.000	2395.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000

GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2323

X1	2.302	25.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1696.000	2000.000	1696.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1686.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000

CENTERLINE STATION AT 2240

X1	2.318	44.000	2181.000	2420.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1930.000	1704.000	2995.000	1704.000	0.000	0.000	0.000
GR	1716.000	250.000	1712.000	270.000	1708.000	430.000	1704.000	790.000	1700.000	1000.000
GR	1696.000	1410.000	1696.000	1505.000	1700.000	1515.000	1700.000	1620.000	1704.000	1670.000
GR	1704.000	1930.000	1700.000	1940.000	1696.700	2000.000	1696.700	2032.000	1694.900	2102.000
GR	1694.900	2164.000	1696.600	2172.000	1698.000	2181.000	1694.200	2198.000	1690.100	2208.000
GR	1690.100	2223.000	1689.000	2229.000	1695.000	2251.000	1690.800	2279.000	1693.700	2300.000
GR	1691.100	2364.000	1693.100	2388.000	1694.200	2420.000	1695.400	2443.000	1695.400	2564.000
GR	1696.500	2600.000	1696.000	2760.000	1696.000	2955.000	1700.000	2965.000	1704.000	2995.000
GR	1700.000	3125.000	1696.000	3182.000	1696.000	3585.000	1700.000	3595.000	1700.000	4990.000
GR	1704.000	6950.000	1708.000	7350.000	1708.000	7580.000	1710.000	9120.000	0.000	0.000

NC	0.045	0.035	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2240

X1	2.336	0.000	0.000	0.000	125.000	95.000	110.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1930.000	1704.000	2995.000	1704.000	0.000	0.000	0.000

NC	0.068	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2372

X1	2.540	36.000	2727.000	2517.000	1200.000	900.000	1116.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3045.000	1702.400	0.000	0.000	0.000
GR	1712.000	705.000	1708.000	706.000	1704.000	785.000	1700.000	1045.000	1700.000	1815.000
GR	1700.000	1815.000	1698.000	2100.000	1697.800	2578.000	1697.700	2690.000	1698.200	2703.000
GR	1695.200	2710.000	1695.200	2727.000	1691.000	2744.000	1691.800	2793.000	1691.400	2843.000
GR	1698.000	2872.000	1691.000	2896.000	1695.300	2917.000	1701.400	3025.000	1702.400	3045.000
GR	1701.800	3121.000	1701.800	3181.000	1700.600	3239.000	1700.600	3326.000	1699.100	3365.000
GR	1697.700	3430.000	1696.900	3499.000	1696.800	3561.000	1696.800	3577.000	1701.000	3670.000
GR	1700.000	3720.000	1700.000	5070.000	1704.000	7000.000	1708.000	7450.000	1708.000	7685.000
GR	1710.000	8450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 3462

X1	2.780	34.000	3417.000	3503.000	950.000	900.000	1240.000	0.000	0.000	0.000
X3	0.000	1.000	0.000	3417.000	1705.200	3671.000	1703.500	0.000	0.000	0.000
GR	1712.000	0.000	1708.000	305.000	1704.000	885.000	1704.000	2120.000	1704.000	2260.000
GR	1704.000	2450.000	1704.000	3380.000	1705.200	3417.000	1705.200	3417.000	1705.200	3417.000
GR	1705.200	3417.000	1693.600	3427.000	1691.900	3431.000	1691.300	3434.000	1691.300	3449.000
GR	1690.900	3451.000	1690.900	3472.000	1691.600	3496.000	1702.700	3503.000	1703.500	3671.000
GR	1702.600	3704.000	1701.900	3718.000	1701.900	3726.000	1701.900	3742.000	1703.000	3748.000
GR	1702.800	3778.000	1702.500	4003.000	1701.500	4234.000	1702.500	4359.000	1703.500	4460.000
GR	1702.500	5970.000	1704.000	5640.000	1708.000	7010.000	1710.000	7630.000	0.000	0.000

NH	5.000	0.045	9918.000	0.050	10138.000	0.045	10362.000	0.130	12103.000	0.040
NH	13578.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.040	36.000	9918.000	10138.000	600.000	1450.000	1380.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9798.000	1714.100	0.000	0.000	0.000	0.000	0.000
GR	1716.000	5153.000	1712.000	5553.000	1708.000	6393.000	1704.000	7208.000	1704.000	7323.000
GR	1704.000	7453.000	1708.000	7573.000	1708.000	9473.000	1712.000	9713.000	1714.100	9798.000

GR	1713.500	9886.000	1709.300	9918.000	1708.300	9954.000	1704.600	9969.000	1697.000	9587.000
GR	1697.000	9993.000	1697.000	10012.000	1699.100	10033.000	1695.800	10057.000	1696.000	10067.000
GR	1698.500	10069.000	1698.000	10076.000	1696.900	10079.000	1696.800	10093.000	1702.800	10108.000
GR	1709.500	10138.000	1709.700	10173.000	1708.400	10188.000	1708.400	10253.000	1708.400	10268.000
GR	1712.000	10309.000	1711.900	10335.000	1711.100	10362.000	1709.300	10860.000	1712.000	12103.000
GR	1716.000	13573.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.045	0.345	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.256	32.000	9863.000	10103.000	800.000	1250.000	1144.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9824.000	1714.900	10273.000	1716.800	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1708.000	9983.000	1708.800	9995.000	1708.800	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.262	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9824.000	1714.900	10273.000	1716.800	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9824.000	10273.000	0.000	0.000
		**** WINTERWOOD GOLF COURSE BRIDGE #1**								
		2* DEBRIS LOADING								
		SINGLE CROSS SECTION NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	3.274	53.000	9900.000	10100.000	58.250	68.250	63.250	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	2.000	99[illegible].000	1714.000	1713.000	10100.000	1714.000	1713.000	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1712.000	9880.000
GR	1714.000	9900.000	1713.000	9923.100	1713.000	9923.200	1713.000	9928.100	1710.000	9928.200
GR	1709.000	9949.000	1713.000	9949.100	1713.000	9954.000	1709.000	9954.100	1708.000	9975.000
GR	1713.000	9975.100	1713.000	9980.000	1708.000	9980.100	1708.000	10020.000	1713.000	10020.100
GR	1713.000	10025.000	1708.000	10025.100	1709.000	10046.000	1713.000	10046.100	1713.000	10051.000
GR	1709.000	10051.100	1713.000	10072.000	1713.000	10072.100	1713.000	10077.000	1710.000	10077.100
GR	1714.000	10100.000	1712.000	10120.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000
GR	1712.000	10545.000	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000
GR	1720.000	13155.000	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	7.100	7.100	0.000	0.000	9824.000	10273.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.260	32.000	9863.000	10103.000	43.250	53.250	43.250	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1708.000	9983.000	1708.000	9995.000	1708.000	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9542.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9552.000	10218.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.470	31.000	9942.000	10218.000	620.000	1000.000	976.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000

GR	1716.700	9914.000	1715.500	9942.000	1705.800	10000.000	1710.700	10017.000	1711.600	10056.000
GR	1713.400	10076.000	1713.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000
GR	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000
GR	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9552.000	10218.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.490	0.000	0.000	0.000	120.000	120.000	120.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9552.000	0.023	10048.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9610.000	10218.000	0.000	0.000

**** WINTERWOOD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

X1	3.500	40.000	9952.000	10218.000	84.000	84.000	84.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BI	2.000	9952.000	1718.000	1716.000	10048.000	1718.000	1716.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1720.000	9610.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000
GR	1715.100	9886.000	1716.700	9914.000	1716.500	9942.000	1712.000	10000.000	1712.000	10017.000
GR	1716.000	9987.000	1716.000	9992.400	1712.200	9992.500	1712.200	10007.300	1716.000	10007.400
GR	1716.000	10012.900	1712.200	10013.000	1712.200	10047.500	1718.000	10048.000	1713.400	10076.000
GR	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000	1720.000	10955.000
GR	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000	1732.000	15535.000

NH	6.000	0.045	9552.000	0.028	9542.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9610.000	10218.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.510	32.000	9942.000	10218.000	44.000	44.000	44.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1720.000	9610.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000
GR	1715.100	9886.000	1716.700	9914.000	1716.500	9942.000	1712.000	10000.000	1712.000	10017.000
GR	1712.000	10056.000	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000
GR	1717.000	10655.000	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000
GR	1728.000	14405.000	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	9545.000	0.028	9897.000	0.023	10222.000	0.110	12895.000	0.045
NH	14765.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.690	33.000	9897.000	10222.000	950.000	850.000	908.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9681.000	1731.100	10222.000	1723.800	0.000	0.000	0.000
GR	1732.000	3795.000	1728.000	3880.000	1724.000	3970.000	1724.000	4515.000	1720.000	5705.000
GR	1716.000	6660.000	1716.000	6785.000	1720.000	7375.000	1720.000	8060.000	1721.700	8100.000
GR	1720.000	8140.000	1720.000	9320.000	1724.000	9535.000	1728.600	9645.000	1731.100	9681.000
GR	1721.400	9747.000	1720.700	9780.000	1720.100	9861.000	1720.300	9897.000	1715.400	9930.000
GR	1716.800	9971.000	1715.200	9994.000	1715.200	10005.000	1715.400	10025.000	1715.400	10035.000
GR	1719.000	10059.000	1723.800	10222.000	1720.400	10355.000	1724.000	10545.000	1724.000	12895.000
GR	1728.000	13735.000	1728.000	14775.000	1732.000	14765.000	0.000	0.000	0.000	0.000

NH	7.000	0.045	6875.000	0.130	9105.000	0.028	9921.000	0.023	10111.000	0.026
NH	10364.000	0.110	12500.000	0.045	14640.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.860	52.000	9921.000	10111.000	950.000	880.000	908.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9828.000	1726.300	10137.000	1729.300	0.000	0.000	0.000
GR	1740.000	3430.000	1736.000	3685.000	1732.000	4030.000	1728.000	4505.000	1724.000	5940.000
GR	1724.000	6075.000	1724.000	6875.000	1724.000	8840.000	1727.900	9105.000	1727.900	9177.000
GR	1724.700	9184.000	1724.700	9203.000	1725.900	9230.000	1728.800	9255.000	1728.000	9326.000

GR	1728.000	9410.000	1727.400	9426.000	1725.000	9446.000	1723.800	9544.000	1723.800	9613.000
GR	1724.900	9619.000	1724.900	9624.000	1724.200	9629.000	1723.200	9637.000	1723.200	9653.000
GR	1725.100	9656.000	1725.300	9725.000	1726.000	9762.000	1726.300	9828.000	1726.300	9875.000
GR	1725.000	9921.000	1721.300	9941.000	1720.300	9994.000	1719.200	9997.000	1719.200	10002.000
GR	1720.700	10004.000	1720.700	10038.000	1723.900	10078.000	1727.200	10111.000	1729.300	10137.000
GR	1728.100	10165.000	1726.900	10221.000	1726.200	10283.000	1726.700	10364.000	1724.000	10960.000
GR	1724.000	11920.000	1728.000	12500.000	1728.000	13260.000	1729.800	13910.000	1732.000	14640.000
NH	7.000	0.050	5160.000	0.130	9615.000	0.030	9913.000	0.028	10100.000	0.030
NH	10271.000	0.130	12400.000	0.045	14210.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.040	38.000	9913.000	10100.000	1000.000	900.000	900.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	9672.000	1732.400	10317.000	1731.200	0.000	0.000	0.000
GR	1736.000	3440.000	1732.000	4945.000	1732.000	5160.000	1732.000	8340.000	1728.000	8740.000
GR	1732.000	9485.000	1732.000	9585.000	1729.800	9619.000	1729.900	9650.000	1732.400	9672.000
GR	1732.400	9771.000	1729.900	9794.000	1729.900	9827.000	1729.200	9913.000	1722.000	9549.000
GR	1721.700	9994.000	1721.000	9997.000	1721.000	10003.000	1722.500	10005.000	1722.100	10047.000

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GR	1727.400	10079.000	1730.900	10100.000	1731.800	10113.000	1732.000	10136.000	1731.500	10172.000
GR	1730.100	10196.000	1730.500	10232.000	1731.200	10271.000	1731.200	10317.000	1726.600	10333.000
GR	1726.600	10399.000	1731.500	10413.000	1731.500	10442.000	1728.000	10890.000	1728.000	12400.000
GR	1732.000	13450.000	1732.000	13580.000	1736.000	14210.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	4310.000	0.134	7565.000	0.040	8365.000	0.130	8720.000	0.030
NH	9900.000	0.028	10100.000	0.030	10247.000	0.130	12515.000	0.100	14920.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.230	36.000	9900.000	10247.000	1100.000	950.000	1020.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	8140.000	1736.000	10350.000	1734.500	0.000	0.000	0.000
GR	1740.000	3570.000	1736.000	3850.000	1736.000	4310.000	1736.000	6095.000	1732.000	7375.000
GR	1732.000	7565.000	1736.000	8140.000	1736.000	8365.000	1736.000	8720.000	1733.000	9738.000
GR	1732.400	9900.000	1723.600	9945.000	1723.100	9987.000	1723.000	9996.000	1723.000	10003.000
GR	1723.500	10033.000	1724.800	10040.000	1727.300	10053.000	1729.700	10080.000	1730.800	10095.000
GR	1732.500	10180.000	1733.600	10247.000	1734.500	10350.000	1729.500	10363.000	1730.100	10427.000
GR	1733.800	10440.000	1733.700	10515.000	1731.000	10528.000	1731.200	10616.000	1730.200	10628.000
GR	1731.500	10655.000	1733.900	10661.000	1732.900	10860.000	1732.000	12915.000	1736.000	13980.000
GR	1738.000	14920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.150	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9731.000	1739.700	10236.000	1738.000	0.000	0.000	0.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9794.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.800	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10095.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 2.230

3265 DIVIDED FLOW

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 2506

2.23	7.50	1695.70	0.00	1695.70	1695.71	0.01	0.00	0.00	1696.00
2500.	702.	1544.	254.	980.	1362.	903.	0.	0.	1694.00
0.00	0.72	1.13	0.28	0.030	0.035	0.100	0.000	1668.20	1886.88
0.000088	0.	1.	0.	0	0	0	0.00	1175.47	3067.25

*SECNO 2.270

3265 DIVIDED FLOW

CENTERLINE STATION AT 2219

2.27	7.18	1695.68	0.00	0.00	1695.76	0.08	0.03	0.02	1695.30
2500.	92.	2166.	243.	120.	884.	468.	10.	5.	1693.50
0.03	0.76	2.46	0.52	0.030	0.030	0.060	0.000	1668.50	1816.16
0.000318	22.	203.	150.	2	0	0	0.00	910.34	2801.48

CCHW= 0.300 CEHV= 0.500
*SECNO 2.284

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999

CENTERLINE STATION AT 2323

2.28	8.94	1695.74	0.00	0.00	1695.75	0.05	0.01	0.01	1695.00
2500.	101.	2327.	72.	330.	1283.	301.	14.	7.	1695.00
0.04	0.31	1.81	0.24	0.030	0.030	0.060	0.000	1666.80	1597.37
0.000083	100.	100.	100.	2	0	0	0.00	1157.57	2896.71

*SECNO 2.285

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV LEFT/RIGHT
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

3265 DIVIDED FLOW

337[illegible] NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.[illegible] MAX ELLC= 1696.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= [illegible] 3032.0 TYPE= 1 TARGET= 3031.999

CENTERLINE STATION AT 2323

2.29	8.85	1695.65	1695.65	0.00	1695.97	0.32	0.00	0.14	1766.00
2500.	3.	0.	2500.	0.	0.	553.	14.	7.	1766.00
0.04	0.00	0.00	4.52	0.030	0.030	0.060	0.000	1666.80	1641.14
0.046751	1.	1.	1.	9	11	0	-1265.54	1068.85	2895.40

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1695.65

STA=	1641.	2000.	2248.	2250.	2397.	2565.	2852.	2895.
PER Q=	11.9	26.1	0.0	0.0	5.6	41.6	14.9	
AREA=	117.3	161.8	0.3	0.1	54.9	160.8	57.6	
VEL=	2.5	4.0	2.2	1.7	2.5	6.5	6.5	

*SECNO 2.301

```
3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS=       0.0     3032.0  TYPE=     1  TARGET=    3031.999
                  **** VEGAS VALLEY DRIVE (NB) ****
                  2* DEBRIS LOADING
                  CENTERLINE STATION AT 2323
     2.30      9.52  1696.32      0.00      0.00  1696.37      0.05      0.32      0.08  1695.00
     2500.     1371.      552.      577.      781.      233.      558.       16.       10.  1695.00
      0.06      1.75      2.36      1.03     0.030     0.030     0.060     0.000  1686.80  1440.46
 0.001226       87.       87.       87.         4         0         0  -895.71  1444.07  2506.30

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLCSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

FLOW DISTRIBUTION FOR SECNO=      2.30          CWSEL=   1696.32

STA=    1440.     1450.     2000.     2250.     2395.     2655.     2679.     2852.     2906.
  PER Q=    0.0      27.3      27.5      22.1       6.5       0.0      12.2       4.4
   AREA=    1.5     450.0     329.5     233.4     212.7       3.7     251.7      90.1
    VEL=    0.5       1.5       2.1       2.4       0.8       0.3       1.2       1.2

*SECNO 2.302

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=       0.0     3032.0  TYPE=     1  TARGET=    3031.999
                  CENTERLINE STATION AT 2323
     2.30      9.54  1696.34      0.00      0.00  1696.37      0.03      0.00      0.01  1695.00
     2500.      296.     2080.      123.      801.     1371.      570.       16.       10.  1695.00
      0.06      1.37      1.52      0.22     0.030     0.030     0.060     0.000  1686.80  1439.72
 0.000053         1.        1.        1.         2         0         0      .00  1448.16  2506.70

*SECNO 2.310

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=    1930.0     2995.0  TYPE=     1  TARGET=    1065.000
 ELENCL=   1704.00  ELENCR=   1704.00
                  CENTERLINE STATION AT 2243
     2.31      7.33  1696.33      0.00      0.00  1696.40      0.07      0.01      0.02  1698.00
     2500.     119.     2302.       79.      133.     1052.      243.       19.       11.  1694.20
      0.06      0.89      2.19      0.33     0.030     0.030     0.060     0.000  1689.00  2046.43
 0.000262        50.       50.       50.         2         0         0      .00   831.32  2995.82

CCHV=    0.100  CEHV=    0.333
*SECNO 2.330

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=    1930.0     2995.0  TYPE=     1  TARGET=    1065.000
 ELENCL=   1704.00  ELENCR=   1704.00
                  CENTERLINE STATION AT 2243

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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	I&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.33	7.36	1696.36	0.00	0.00	1696.43	0.07	0.03	0.00	1698.00
2500.	81.	2276.	143.	137.	1059.	258.	22.	13.	1694.20
0.18	0.59	2.15	1.55	0.046	0.030	0.035	0.000	1689.00	2045.21
0.000251	125.	110.	95.	2	0	0	0.00	843.92	2955.90

0
*SECNO 2.540

3470 ENCROACHMENT STATIONS= 0.0 3045.0 TYPE= 1 TARGET= 3044.999
CENTERLINE STATION AT 2872

2.54	6.64	1696.64	0.00	0.00	1696.75	0.10	0.31	0.01	1695.20
2500.	15.	2479.	6.	27.	962.	16.	53.	26.	1695.30
0.20	0.54	2.53	0.40	0.060	0.030	0.050	0.000	1690.00	2706.63
0.000313	1200.	1116.	900.	2	0	0	0.00	234.14	2940.78

0
*SECNO 2.760

3470 ENCROACHMENT STATIONS= 3417.0 3671.0 TYPE= 1 TARGET= 254.000
ELENCL= 1705.20 ELENCR= 1703.50
CENTERLINE STATION AT 3462

2.78	6.18	1697.08	0.00	0.00	1697.63	0.56	1.75	0.14	1705.20
2500.	0.	2500.	0.	0.	417.	0.	74.	30.	1702.70
0.26	0.00	5.99	0.00	0.060	0.030	0.050	0.000	1690.50	3424.00
0.001634	950.	1240.	900.	2	0	0	0.00	75.45	3499.46

0
1490 NH CARD USED
*SECNO 3.040

3470 ENCROACHMENT STATIONS= 9798.0 13578.0 TYPE= 1 TARGET= -9798.000
ELENCL= 1714.10 ELENCR= 100000.00
CENTERLINE STATION AT 10000

3.04	5.36	1701.15	0.00	0.00	1701.63	0.47	3.99	0.01	1709.30
2500.	0.	2500.	0.	0.	455.	0.	87.	33.	1709.50
0.33	0.00	5.49	0.00	0.060	0.050	0.050	0.000	1695.80	9977.15
0.006424	6[illegible]	1380.	1450.	2	0	0	.00	126.74	10103.89

0
*SECNO 3.256

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
ELENCL= 1714.90 ELENCR= 1716.80

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CENTERLINE STATION AT 10000

3.26	4.28	1711.08	0.00	0.00	1711.62	0.54	9.97	0.02	1714.30
2500.	0.	2500.	0.	0.	423.	0.	99.	37.	1714.70
0.36	0.00	5.91	0.00	0.045	0.050	0.045	0.000	1706.80	9896.72
0.012500	800.	1144.	1250.	4	0	0	0.00	178.39	10075.11

0
*SECNO 3.262

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
ELENCL= 1714.90 ELENCR= 1716.80
CENTERLINE STATION AT 10000

3.26	4.74	1711.54	0.00	0.00	1711.92	0.38	0.28	0.02	1714.30
2500.	0.	2500.	0.	0.	508.	0.	99.	37.	1714.70
0.38	0.00	4.92	0.00	0.045	0.050	0.045	0.000	1706.80	9891.88
0.007256	3[illegible]	30.	30.	3	0	0	0.00	186.79	10078.67

0
CCHV= 0.300 CEHV= 0.500

*SECNO 3.274

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 445.000
**** WINTERWOOD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.27	4.15	1712.35	0.00	0.00	1712.55	0.50	.57	0.06	1714.10
2500.	0.	2500.	0.	0.	442.	0.	100.	37.	1714.00
0.38	0.34	5.66	0.04	0.045	0.050	0.045	0.000	1708.00	9879.64
0.011281	58.	63.	68.	3	0	0	0.00	149.67	10120.47

FLOW DISTRIBUTION FOR SECNO= 3.27 CWSEL= 1712.05

STA= 9880. 10130.
PER Q= 100.0
AREA= 441.7
VEL= 5.7

*SECNO 3.280

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 445.000
CENTERLINE STATION AT 10000

SECNO	DEPTH	CWSEL	CRIWS	ASELK	EG	HV	HL	QLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST
3.28	4.66	1712.66	0.00	0.00	1712.87	0.21	0.23	0.09	1714.30
2500.	0.	2500.	0.	0.	678.	0.	100.	38.	1714.70
0.35	0.00	3.69	0.00	0.045	0.050	0.045	0.000	1708.00	9880.14
0.003175	43.	43.	53.	2	0	0	0.00	207.17	10087.31

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.470

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.47	5.11	1714.91	0.00	0.00	1715.50	0.59	2.52	0.11	1716.50
2500.	0.	2500.	0.	0.	407.	0.	113.	41.	100000.00
0.43	0.00	6.14	0.00	0.045	0.028	0.045	0.000	1709.80	9555.71
0.002142	620.	976.	1000.	2	0	0	0.00	145.65	10101.36

*SECNO 3.490

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.49	5.47	1715.27	0.00	0.00	1715.73	0.46	0.22	0.01	1716.50
2500.	0.	2500.	0.	1.	460.	0.	114.	42.	100000.00
0.44	0.41	5.43	0.00	0.028	0.028	0.045	0.000	1709.80	9880.34
0.001548	120.	120.	120.	3	0	0	0.00	163.34	10107.31

CCHV= 0.300 CEHV= 0.500

1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
**** WINTERWOOD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	2.99	1715.19	1715.19	0.00	1716.35	1.16	0.23	0.35	1718.00
2500.	0.	2500.	0.	0.	289.	0.	115.	42.	100000.00
0.44	0.35	8.64	0.00	0.028	0.023	0.045	0.000	1712.20	9883.14
0.006235	84.	84.	84.	3	12	0	0.00	130.07	10105.89

0
FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1715.19

STA=	9883.	9883.	10218.
PER Q=	0.	100.0	
AREA=	0.2	269.4	
VEL=	0.4	8.6	

1490 NH CARD USED
*SECNO 3.510

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
CENTERLINE STATION AT 10000

3.51	4.36	1716.36	1715.05	0.00	1716.70	0.34	0.11	0.24	1716.50
2500.	59.	2441.	0.	40.	513.	0.	115.	42.	100000.00
0.44	1.47	4.76	0.00	0.028	0.028	0.045	0.000	1712.00	9844.48
0.001415	44.	44.	44.	12	8	0	0.00	246.31	10125.52

0
CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
CENTERLINE STATION AT 10000

3.69	2.98	1718.13	1718.15	0.00	1719.22	1.04	2.31	0.21	1720.30
2500.	0.	2500.	0.	0.	305.	0.	124.	46.	1723.80
0.47	0.00	8.19	0.00	.028	0.028	0.045	0.000	1715.20	9911.29
0.005833	960.	908.	850.	6	14	0	0.00	142.24	10053.53

1490 NH CARD USED
*SECNO 3.660

3471 ENCROACHMENT STATIONS= 9823.0 10137.0 TYPE= 1 TARGET= 305.000
ELENCL= 1726.30 ELENCR= 1729.30
CENTERLINE STATION AT 10000

3.86	4.10	1723.30	0.00	0.00	1724.30	1.00	5.07	0.00	1725.00
2500.	0.	2500.	0.	0.	312.	0.	130.	49.	1727.20
0.51	0.00	8.01	0.00	0.028	0.028	0.045	0.000	1719.20	9630.19
0.005355	960.	908.	880.	4	8	0	0.00	140.32	10070.51

1490 NH CARD USED
*SECNO 4.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9672.0 10317.0 TYPE= 1 TARGET= 645.000
ELENCL= 1732.40 ELENCR= 1731.20
CENTERLINE STATION AT 10000

4.04	5.37	1726.37	0.00	0.00	1726.72	0.34	2.35	0.07	1729.20
2500.	0.	2500.	0.	0.	533.	0.	140.	53.	1730.90
0.56	0.00	4.69	0.00	.028	0.028	0.045	0.000	1721.00	9927.16
0.001399	1010.	960.	900.	3	0	0	0.00	145.61	10072.77

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1726.37

STA= 9927. 1010.
PER Q= 100.0
AREA= 533.3
VEL= 4.7

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8140.0 10350.0 TYPE= 1 TARGET= 2210.000
ELENCL= 1736.00 ELENCR= 1734.50
CENTERLINE STATION AT 10000

4.23	4.93	1727.93	0.00	0.00	1728.34	0.41	1.60	0.02	1732.40
2500.	0.	2500.	0.	0.	484.	0.	152.	56.	1733.60
0.62	0.00	5.16	0.00	0.028	0.028	0.045	0.000	1723.00	9522.90
0.001781	1100.	1020.	950.	2	0	0	0.00	137.10	10060.00

1490 NH CARD USED

*SECNO 4.420

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.00
CENTERLINE STATION AT 10000

4.42	5.80	1730.00	0.00	0.00	1730.30	0.29	1.94	0.01	1737.00
2500.	0.	2500.	0.	0.	577.	0.	164.	59.	1737.60
0.68	0.00	4.33	0.00	0.028	0.045	0.045	0.000	1724.20	9947.14
0.002159	992.	992.	992.	3	0	0	0.00	119.19	10066.33

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 51,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - NONDMAGING FLOWS (D/S REACH)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.000000	0.00	0.5	0.	1695.700	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CONAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 2.230

3265 DIVIDED FLOW

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 2506

2.23	7.50	1695.70	0.00	1695.70	1695.72	0.02	0.00	0.00	1696.00
2700.	758.	1667.	275.	980.	1362.	903.	0.	0.	1694.00
0.00	0.77	1.22	0.30	0.030	0.035	0.100	0.000	1688.20	1686.88
0.000172	.	0.	0.	0	0	0	0.00	1175.47	3067.25

*SECNO 2.270

3265 DIVIDED FLOW

CENTERLINE STATION AT 2219

2.27	7.18	1695.68	0.00	0.00	1695.78	0.10	0.04	0.02	1695.30
2700.	98.	2340.	262.	119.	883.	467.	10.	5.	1693.50
0.02	0.83	2.65	0.56	0.030	0.030	0.060	0.000	1688.50	1618.73
0.000372	220.	203.	150.	2	0	0	0.00	907.49	2801.44

CCHV= 0.300 CEHV= 0.500
*SECNO 2.284

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.28	8.95	1695.75	0.00	0.00	1695.80	0.05	0.02	0.01	1695.80
2700.	114.	2507.	79.	342.	1285.	308.	14.	7.	1695.00
0.04	0.33	1.95	0.26	0.030	0.030	0.060	0.000	1666.80	1587.63
0.000095	100.	100.	100.	3	0	0	0.00	1173.00	2897.00

*SECNO 2.285

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HW	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.29	8.87	1695.67	1695.67	0.00	1696.02	0.34	0.00	0.14	1766.00
2700.	0.	0.	2700.	0.	0.	574.	14.	7.	1766.00
0.04	0.00	0.00	4.71	0.030	0.030	0.060	0.000	1666.80	1628.92
0.000032	1.	1.	1.	20	11	0	-1268.82	1108.18	2895.77

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1695.67

STA=	1629.	2000.	2248.	2250.	2397.	2571.	2852.	2896.
PER Q=	12.4	26.4	0.0	0.0	5.8	40.7	14.6	
AREA=	125.2	167.3	0.3	0.2	58.7	163.5	58.5	
VEL=	2.7	4.3	2.4	1.8	2.7	6.7	6.7	

*SECNO 2.301

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
**** VEGAS VALLEY DRIVE (NB) ****
2* DEBRIS LOADING
CENTERLINE STATION AT 2323

2.30	9.57	1696.37	0.00	0.00	1696.43	0.05	0.32	0.09	1695.00
2700.	1500.	584.	616.	826.	242.	586.	17.	10.	1695.00
0.05	1.32	2.42	1.05	0.030	0.030	0.060	0.000	1666.80	1438.78
0.001226	87.	87.	87.	4	0	0	-895.71	1453.35	2907.21

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.30 CWSEL= 1696.37

STA=	1439.	1450.	2000.	2250.	2355.	2655.	2683.	2852.	2907.
PER W=	0.3	28.2	27.3	21.6	6.7	0.1	11.8	4.2	
AREA=	2.1	480.7	343.5	241.5	227.2	5.2	260.2	93.1	
VEL=	0.6	1.6	2.1	2.4	0.8	0.3	1.2	1.2	

*SECNO 2.302

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.30	9.60	1696.40	0.00	0.00	1696.43	0.03	0.00	0.01	1695.00
2700.	341.	2220.	139.	845.	1375.	597.	17.	10.	1695.00
0.05	0.40	1.61	0.23	0.030	0.030	0.060	0.000	1686.80	1438.08
0.000059	1.	1.	1.	2	0	0	0.00	1457.24	2907.59

*SECNO 2.310

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2995.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2246

2.31	7.33	1696.38	0.00	0.00	1696.46	0.08	0.01	0.02	1698.00
2700.	134.	2472.	94.	140.	1064.	269.	19.	11.	1694.20
0.06	0.96	2.32	0.35	0.030	0.030	0.060	0.000	1689.00	2044.36
0.000291	50.	50.	50.	2	0	0	0.00	852.79	2955.96

CCHV= 0.100 CEHV= 0.300
*SECNO 2.330

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2995.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2246

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

2.33	7.42	1696.42	0.00	0.00	1696.49	0.07	0.03	0.00	1698.00
2700.	91.	2438.	171.	144.	1072.	286.	23.	13.	1694.20
0.07	0.63	2.27	0.60	0.045	0.030	0.035	0.000	1689.00	2043.01
0.000276	125.	110.	95.	2	0	0	0.00	866.77	2956.04

*SECNO 2.540

3470 ENCROACHMENT STATIONS= 0.0 3045.0 TYPE= 1 TARGET= 3044.999
CENTERLINE STATION AT 2872

```
      2.54      6.73  1696.73      0.00      0.00   1696.84      0.12      0.34      0.01   1695.20
    2700.         17.    2678.         8.        29.       979.        18.        55.        26.   1695.30
      0.19      0.59      2.73      0.44      0.060     0.030     0.050     0.000  1690.00   2706.44
 0.000345      1200.     1116.      900.         2         0         0      0.00    235.84   2942.28
0
 *SECNO 2.780

 3301 HV CHANGED MORE THAN HWINS


 3470 ENCROACHMENT STATIONS=    3417.0     3671.0  TYPE=      1  TARGET=      254.000
  ELENCL=   1705.20  ELENCR=   1703.50
                CENTERLINE STATION AT 3462
      2.78      6.30  1697.20      0.00      0.00   1697.82      0.62      0.82      0.15   1705.20
    2700.         0.    2700.         0.        0.       426.        0.        75.        30.   1702.70
      0.24      0.00      6.33      0.00      0.060     0.030     0.050     0.000  1690.90   3423.90
 0.001782       950.     1240.      900.         2         0         0      0.00     75.64   3499.53

 1490 NH CARD USED
 *SECNO 3.040

 3470 ENCROACHMENT STATIONS=    9798.0    13578.0  TYPE=      1  TARGET=    -9798.000
  ELENCL=   1714.10  ELENCR= 100000.00
                CENTERLINE STATION AT 10000
      3.04      5.65  1701.45      0.00      0.00   1701.92      0.47      4.08      0.02   1709.30
    2700.         0.    2700.         0.        0.       493.        0.        90.        33.   1709.50
      0.31      0.00      5.48      0.00      0.060     0.050     0.050     0.000  1695.80   9976.46
 0.005847       600.     1380.     1450.         2         0         0      0.00    128.17  10104.63
0
1
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    SECNO     DEPTH     CHSEL     CRIWS     WSELK      EG        HV        HL       CLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID      ENDST

 *SECNO 3.256

 3470 ENCROACHMENT STATIONS=    9824.0    10273.0  TYPE=      1  TARGET=      449.000
  ELENCL=   1714.90  ELENCR=   1716.80
                CENTERLINE STATION AT 10000
      3.26      4.33  1711.13      0.00      0.00   1711.74      0.60      5.78      0.04   1714.30
    2700.         0.    2700.         0.        0.       433.        0.       102.        37.   1714.70
      0.36      0.00      6.24      0.00      0.045     0.050     0.045     0.000  1706.80   9896.17
 0.013660       870.     1144.     1250.         4         0         0      0.00    179.34  10075.51
0
 *SECNO 3.262

 3470 ENCROACHMENT STATIONS=    9824.0    10273.0  TYPE=      1  TARGET=      449.000
  ELENCL=   1714.90  ELENCR=   1716.80
                CENTERLINE STATION AT 10000
      3.26      4.85  1711.65      0.00      0.00   1712.06      0.41      0.30      0.02   1714.30
    2700.         0.    2700.         0.        0.       527.        0.       102.        38.   1714.70
      0.36      0.00      5.12      0.00      0.045     0.050     0.045     0.000  1706.80   9890.78
 0.007555        30.       30.       30.         3         0         0      0.00    188.70  10079.48
0
 CCHV=   0.300  CEHV=   0.500
 *SECNO 3.274

 3265 DIVIDED FLOW


 337  NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00
```

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
**** WINTERWOOD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.27	4.17	1712.17	0.00	1712.05	1712.71	0.53	0.59	0.06	1714.00
2700.	0.	2700.	0.	0.	460.	0.	103.	38.	1714.00
0.37	0.70	5.86	0.70	0.045	0.050	0.045	0.000	1708.00	9878.71
0.011714	58.	83.	68.	3	0	0	0.00	155.76	10121.65

0
1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 3.27 CWSEL= 1712.17

STA=	9879.	9882.	10100.	10122.
PER Q=	0.0	100.0	0.0	
AREA=	0.3	46.3	0.3	
VEL=	0.7	5.9	0.7	

*SECNO 3.280

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
CENTERLINE STATION AT 10000

3.28	4.82	1712.82	0.00	1712.66	1713.04	0.22	0.24	0.09	1714.30
2700.	0.	2700.	0.	0.	710.	0.	103.	38.	1714.70
0.37	0.70	3.80	0.00	0.045	0.050	0.045	0.000	1708.00	9878.54
0.013235	45.	43.	53.	3	0	0	0.00	205.95	10088.48

0
CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.470

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.47	5.29	1715.09	0.00	1714.91	1715.69	0.61	2.54	0.11	1716.50
2700.	0.	2700.	0.	0.	432.	0.	116.	42.	100000.00
0.41	0.00	6.25	0.00	0.028	0.028	0.045	0.000	1709.80	9954.23
0.002132	620.	976.	1000.	2	0	0	0.00	149.99	10104.22

0
*SECNO 3.490

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.49	5.65	1715.45	0.00	1715.27	1715.92	0.47	0.22	0.01	1716.50
2700.	2.	2698.	0.	3.	488.	0.	117.	42.	100000.00
0.42	0.65	5.53	0.00	0.028	0.028	0.045	0.000	1709.80	9874.60
0.001550	120.	120.	120.	3	0	0	0.00	176.57	10110.23

0
1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
**** WINTERWOOD GOLF COURSE BRIDGE #2**
2# DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	3.14	1715.34	1715.34	1715.19	1716.52	1.18	0.23	0.36	1718.00
2700.	1.	2699.	0.	1.	309.	0.	118.	43.	100000.00
0.42	1.01	8.74	0.00	0.028	0.023	0.045	0.000	1712.20	9878.12
0.006121	84.	84.	84.	2	12	0	0.00	141.24	10108.44

0
FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1715.34

STA=	9878.	9893.	10218.
PER Q=	0.1	99.9	
AREA=	1.4	308.8	
VEL=	1.	8.7	

1490 NH CARD USED
*SECNO 3.510

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
1

CENTERLINE STATION AT 10000

3.51	4.54	1716.54	1715.20	1716.36	1716.85	0.35	.11	0.25	1716.50
2700.	83.	2617.	0.	52.	547.	0.	119.	43.	100000.00
0.42	1.57	4.79	0.00	0.028	0.028	0.045	0.000	1712.00	9838.53
0.001369	44.	44.	44.	12	5	0	0.00	264.57	10128.54

0
CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
CENTERLINE STATION AT 10000

3.69	3.38	1718.28	1718.27	1718.18	1719.41	1.12	2.28	0.23	1720.30
2700.	1.	2700.	0.	0.	318.	0.	128.	47.	1723.80
0.45	0.00	8.48	0.00	0.028	0.023	0.045	0.000	1715.20	9910.67
0.005989	950.	908.	850.	5	14	0	0.00	143.46	10054.13

0

149 NH CARD USED
*SECNO 3.860

3470 ENCROACHMENT STATIONS= 9828.0 10137.0 TYPE= 1 TARGET= 309.000
ELENCL= 1726.30 ELENCR= 1729.30
CENTERLINE STATION AT 10000

3.86	4.24	1723.44	0.00	1723.30	1724.47	1.03	5.06	0.01	1725.00
2700.	3.	2700.	0.	0.	332.	0.	135.	50.	1727.20
0.49	0.00	3.14	0.00	0.028	0.023	0.045	0.000	1719.20	9929.43
0.005207	950.	918.	880.	4	0	0	0.00	142.83	10072.26

0
149 NH CARD USED
*SECNO 4.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9672.0 10317.0 TYPE= 1 TARGET= 645.000
ELENCL= 1732.40 ELENCR= 1731.20
CENTERLINE STATION AT 10000

4.04	5.54	1726.54	0.00	1726.37	1726.90	0.36	2.37	0.07	1729.20
2700.	3.	2700.	0.	0.	558.	0.	145.	52.	1730.90
0.54	0.00	4.84	0.00	0.028	0.028	0.045	0.000	1721.00	9926.34
0.001431	1000.	960.	900.	3	0	0	0.00	147.43	10073.76

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TKA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1726.54

STA= 9926. 10101.
PER Q= 100.0
AREA= 557.5
VEL= 4.8

149 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8140.0 10350.0 TYPE= 1 TARGET= 2210.000
ELENCL= 1736.20 ELENCR= 1734.50
CENTERLINE STATION AT 10000

4.23	5.12	1728.12	0.00	1727.93	1728.55	0.43	1.63	0.02	1732.40
2700.	0.	2700.	0.	0.	510.	0.	157.	57.	1733.60
0.59	0.00	5.29	0.00	0.028	0.028	0.045	0.000	1723.00	9921.93
0.001794	1100.	1020.	950.	2	0	0	0.00	140.20	10062.13

0
149 NH CARD USED
*SECNO 4.420

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.00
CENTERLINE STATION AT 10000

4.42	6.12	1732.22	0.00	1732.03	1732.53	0.31	1.97	0.01	1737.00
2700.	0.	2700.	0.	0.	603.	0.	170.	60.	1737.60
0.66	0.00	4.48	0.00	0.028	0.045	0.045	0.000	1724.20	9946.77
0.002202	992.	992.	992.	3	0	0	0.00	120.09	10066.86

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1

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - NONIMAGING FLOWS (D/S REACH)

J1   ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.         4.         0.         0.   0.000000       0.00       0.5         0.   1695.700      0.000

J2   NPROF       IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      3.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         CLOSS      BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        ARCH       VOL        TWA     LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CCHAR      TOPWID       ENDST

*PROF 3

CCHV=    0.100  CEHV=    0.300
*SECNO 2.230

3265 DIVIDED FLOW

                SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 2506
     2.23       7.53   1695.70       0.00    1695.70    1695.72       0.02       0.00       0.00    1696.00
     3000.       842.       1863.       305.       986.       1362.       903.         0.         0.    1694.00
     0.00       0.96       1.36       0.34      0.030      0.035      0.100      0.000    1688.20    1886.88
 0.000126          0.         0.         0.          0          0          0       0.00    1175.47    3067.25

*SECNO 2.270

3265 DIVIDED FLOW

                CENTERLINE STATION AT 2219
     2.27       7.18   1695.63       0.00       0.00    1695.79       0.12       0.04       0.03    1695.30
     3000.       139.       2632.       290.       116.       882.       465.       10.         5.    1693.50
     0.02       0.92       2.95       0.62      0.030      0.030      0.060      0.000    1688.50    1823.36
 0.000461       220.       203.       150.          2          0          0       0.00     902.33    2801.37

CCHV=    0.300  CEHV=    0.500
*SECNO 2.284

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=        0.0     3032.0   TYPE=       1   TARGET=     3031.999
                CENTERLINE STATION AT 2323
     2.28       8.96   1695.76       0.00       0.00    1695.83       0.07       0.02       0.02    1695.00
     3000.       131.       2731.        89.       359.       1287.       312.       14.         7.    1695.00
     0.03       0.37       2.16       0.29      0.030      0.030      0.060      0.000    1686.80    1580.65
 0.000117       102.       100.       100.          3          0          0       0.00    1184.07    2897.20
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*SECNO 2.285

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWIC	ENDST

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999

CENTERLINE STATION AT 2323

2.29	8.90	1695.70	1695.70	0.00	1696.09	0.39	0.00	0.16	1766.00
3000.	1.	1.	3000.	0.	0.	600.	14.	7.	1766.00
0.03	0.00	0.00	5.00	0.030	0.030	0.060	0.000	1686.60	1614.22
0.055745	1.	1.	1.	20	11	0	-1272.76	1131.44	2896.20

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1695.70

STA=	1614.	2000.	2248.	2250.	2357.	2578.	2852.	2896.
PER Q=	13.1	26.8	0.0	0.0	6.2	39.7	14.2	
AREA=	135.3	174.0	1.4	3.2	63.5	166.8	59.7	
VEL=	2.9	4.6	2.6	2.0	2.9	7.1	7.1	

*SECNO 2.301

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999

**** VEGAS VALLEY DRIVE (NB) ****
2' DEBRIS LOADING
CENTERLINE STATION AT 2323

2.30	9.66	1696.46	0.00	0.00	1696.51	0.06	0.32	0.10	1695.00
3000.	1695.	632.	673.	894.	254.	627.	17.	10.	1695.00
0.05	1.90	2.49	1.07	0.030	0.030	0.060	0.000	1686.60	1436.29
0.001219	87.	87.	87.	4	0	0	-895.71	1467.12	2908.57

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWIC	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.30 CWSEL= 1696.46

STA=	1436.	1450.	2300.	2250.	2355.	2655.	2689.	2852.	2909.
PER Q=	0.1	29.5	27.0	21.1	7.0	0.1	11.3	4.1	
AREA=	3.1	526.3	364.2	253.5	248.8	7.7	273.1	97.8	
VEL=	0.6	1.7	2.2	2.5	0.8	0.3	1.2	1.2	

*SECNO 2.302

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.30	9.68	1696.48	0.00	0.00	1696.52	0.04	0.00	0.01	1695.00
3000.	414.	2422.	163.	911.	1391.	638.	17.	10.	1695.00
0.05	0.45	1.74	0.26	0.030	0.030	0.060	0.000	1686.80	1435.64
0.000088	1.	1.	1.	2	0	0	.00	1470.70	2908.92

*SECNO 2.310

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2995.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2240

2.31	7.46	1696.46	0.00	0.00	1696.55	0.09	0.01	0.03	1698.00
3000.	158.	2721.	120.	150.	1082.	309.	19.	11.	1694.20
0.05	1.06	2.52	0.39	0.030	0.030	0.060	0.000	1689.00	2041.32
0.000334	50.	50.	50.	2	0	0	0.00	884.29	2956.15

CCHV= 0.10 CEHV= 0.300
*SECNO 2.330

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2955.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2240

SECNO / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	CLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
2.33	7.50	1696.50	0.00	0.00	1696.59	0.08	0.04	0.00	1698.00
3000.	108.	2675.	217.	155.	1092.	331.	23.	13.	1694.20
0.07	0.69	2.45	0.66	0.045	0.030	0.035	0.000	1689.00	2039.72
0.000314	125.	110.	95.	2	0	0	0.00	900.37	2956.25

*SECNO 2.540

3470 ENCROACHMENT STATIONS= 0.0 3045.0 TYPE= 1 TARGET= 3044.999
CENTERLINE STATION AT 2872

2.54	6.85	1696.85	0.00	0.00	1696.99	0.13	0.39	0.02	1695.20
3000.	21.	2969.	11.	31.	1002.	21.	56.	26.	1695.30
0.17	0.66	2.96	0.50	0.060	0.030	0.050	.000	1690.00	2706.14
0.000392	1200.	1116.	900.	2	0	0	0.00	238.34	2944.48

*SECNO 2.780

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 3417.0 3671.0 TYPE= 1 TARGET= 254.000
ELENCL= 1705.20 ELENCR= 1703.50
CENTERLINE STATION AT 3462

2.78	6.48	1697.38	0.00	0.00	1698.10	0.72	0.93	0.18	1705.20

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     3000.        1.      3000.        0.        0.      440.        0.       77.       31.    1702.70
      0.22       0.00       6.32      0.00      0.060     0.030     0.050     0.000  1690.90    3423.74
 0.001998        950.      1240.       900.         2         0         0      0.00    75.90    3499.64

 1490 NH CARD USED
 *SECNO 3.040

 3470 ENCROACHMENT STATIONS=     9798.0    13578.0  TYPE=      1  TARGET=    -9796.000
  ELENCL=    1714.10  ELENCR=  100000.00
                CENTERLINE STATION AT 10000
       3.04       6.07  1701.87      0.00      0.00   1702.34      0.47      4.21      0.03  1709.30
     3000.         1.     3000.        0.        0.      547.        0.       93.       34.    1705.50
       0.29       0.00       5.49      0.00      0.060     0.050     0.050     0.000  1695.80    9975.47
 0.005228        600.      1380.      1450.         2         0         0      0.00   130.20   10105.67
0
1
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    SECNO      DEPTH      CHSEL      CRIWS      XSELK      EG         HV         HL         CLOSS     BANK ELEV
                                                                                                  LEFT/RIGHT
    TIME       QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TEA
    SLOPE      VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
               XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TCHOIC       ENDST


 *SECNO 3.256

 3470 ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=      1  TARGET=      449.000
  ELENCL=    1714.90  ELENCR=    1716.80
                CENTERLINE STATION AT 10000
       3.26       4.42  1711.22      0.00      0.00   1711.91      0.70      5.51      0.07  1714.30
     3000.         1.     3000.        0.        0.      448.        0.      106.       38.    1714.70
       0.34       0.00       6.70      0.00      0.045     0.050     0.045     0.000  1706.80    9895.30
 0.015222          8.        1144.      1250.         4         0         0      0.00   180.85   10076.15

 *SECNO 3.262

 3470 ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=      1  TARGET=      449.000
  ELENCL=    1714.90  ELENCR=    1716.80
                CENTERLINE STATION AT 10000
       3.26       5.01  1711.81      0.00      0.00   1712.26      0.45      0.32      0.02  1714.30
     3000.         1.     3000.        0.        0.      558.        0.      106.       38.    1714.70
       0.34       0.00       5.38      0.00      .045      0.050     0.045     0.000  1706.80    9889.10
 0.007900         30.        30.        30.         3         0         0      0.00   151.61   10080.71
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 3.274

 3265 DIVIDED FLOW


 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00


 3470 ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=      1  TARGET=      449.000
                **** WINTERWOOD GOLF COURSE BRIDGE #1**
                2* DEBRIS LOADING
                SINGLE CROSS SECTION NORMAL BRIDGE
                CENTERLINE STATION AT 10000
       3.27       4.36  1712.36      0.00   1712.05   1712.54      0.59      1.62      0.07  1714.00
     3000.         1.     2997.        1.        1.      488.        1.      107.       38.    1714.00
       0.34       1.15       6.14      1.16      0.045     0.050     0.045     0.000  1708.00    9877.36
 0.012260         58.        63.        68.         5         0         0      0.00   164.71   10123.40
0
1
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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOP&IC	ENDST

FLOW DISTRIBUTION FOR SECNO= 3.27 C&SEL= 1712.36

STA=	9877.	9880.	9884.	10100.	10120.	10123.
PER Q=	0.0	0.0	99.9	0.0	0.0	
AREA=	1.5	1.6	487.9	0.6	0.6	
VEL=	1.2	1.2	6.1	1.2	1.2	

*SECNO 3.260

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 445.000
CENTERLINE STATION AT 10000

3.28	5.75	1713.05	0.00	1712.66	1713.29	0.24	0.25	0.10	1714.30
3000.	0.	3000.	0.	0.	759.	0.	108.	39.	1714.70
0.35	0.00	3.95	0.00	0.045	0.050	0.045	0.000	1708.00	9876.10
0.003278	43.	43.	53.	3	0	0	.00	214.18	10090.28

CCHV= 0.100 CEHV= 0.300
1498 NH CARD USED
*SECNO 3.470

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.47	5.52	1715.32	0.00	1714.91	1715.96	0.63	2.55	0.12	1716.50
3000.	1.	2999.	0.	1.	469.	0.	121.	43.	100000.00
0.39	0.57	6.40	0.00	0.028	0.028	0.045	0.000	1709.80	9878.53
0.002124	623.	976.	1000.	1	0	0	0.00	167.55	10108.23

*SECNO 3.490

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9552. 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.49	5.89	1715.69	0.00	1715.27	1716.19	0.50	0.22	0.01	1716.50
3000.	8.	2992.	0.	5.	527.	0.	123.	43.	100000.00
0.40	0.92	5.68	0.00	0.028	0.028	0.045	0.000	1709.80	9866.71
0.001561	120.	120.	120.	3	0	0	0.00	194.72	10114.23

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOP&IC	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.3 MAX ELLC= 1716.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
**** WATERWOOD GOLF COURSE BRIDGE #2**
2* DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	3.36	1715.56	1715.56	1715.19	1716.77	1.22	0.23	0.36	1718.00
3000.	3.	2992.	0.	5.	338.	0.	124.	44.	100000.00
0.40	1.53	8.86	0.00	0.028	0.023	0.045	0.000	1712.20	9870.91
0.005955	84.	84.	84.	3	6	0	0.00	157.38	10112.10

FLOW DISTRIBUTION FOR SECNO= 3.51 CHSEL= 1715.56

STA=	9871.	9894.	10218.
PER Q=	0.3	99.7	
AREA=	5.3	337.7	
VEL=	1.5	8.9	

1490 NH CARD USED
*SECNO 3.510

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
CENTERLINE STATION AT 10000

3.51	4.79	1716.79	1715.40	1716.36	1717.14	0.35	0.11	0.26	1716.50
3000.	127.	2873.	0.	77.	593.	0.	124.	44.	100000.00
0.40	1.65	4.84	0.00	0.028	0.028	0.045	0.000	1712.00	9830.36
0.001289	44.	44.	44.	12	5	0	0.00	302.33	10132.69

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
CENTERLINE STATION AT 10000

3.69	3.24	1718.44	1718.44	1718.18	1719.63	1.19	2.17	0.25	1720.30
3000.	0.	3000.	0.	0.	343.	0.	135.	49.	1723.80
0.43	0.00	8.75	0.00	0.028	0.023	0.045	0.000	1715.20	9909.52
0.005886	95.	918.	850.	2	14	0	.00	145.75	10055.27

1490 NH CARD USED
*SECNO 3.860

3470 ENCROACHMENT STATIONS= 9828.0 10137.0 TYPE= 1 TARGET= 309.000
ELENCL= 1726.30 ELENCR= 1729.30
CENTERLINE STATION AT 10000

3.86	4.40	1723.59	0.00	1723.30	1724.71	1.12	5.07	0.01	1725.00	
3000.	0.	3000.	0.	0.	354.	0.	142.	52.	1727.20	
0.46	0.00	8.47	0.00	0.028	0.023	0.045	0.000	1719.20	9928.59	
0.005311	960.	908.	880.	4	0	0	0.00	145.60	10074.19	

1490 NH CARD USED
*SECNO 4.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9672.0 10317.0 TYPE= 1 TARGET= 645.000
ELENCL= 1732.40 ELENCR= 1731.2
CENTERLINE STATION AT 10000

4.04	5.79	1726.79	0.00	1726.37	1727.19	0.39	2.40	0.07	1729.20
3000.	0.	3000.	0.	0.	596.	0.	153.	55.	1730.90
0.51	0.00	5.04	0.00	0.028	0.028	0.045	0.000	1721.00	9925.05
0.001453	1000.	960.	900.	3	0	0	0.00	150.27	10075.32

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SECNO	DEPTH	CWSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	ANCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1726.79

STA= 9925. 10100.
PER Q= 100.
AREA= 595.8
VEL= 5.3

1490 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8140.0 10350.0 TYPE= 1 TARGET= 2210.000
ELENCL= 1736.30 ELENCR= 1734.50
CENTERLINE STATION AT 10000

4.23	5.39	1728.39	0.00	1727.93	1728.85	0.46	1.65	0.02	1732.40
3000.	0.	3000.	0.	0.	550.	0.	166.	58.	1733.60
0.56	0.00	5.46	0.00	0.028	0.028	0.045	0.000	1723.00	9920.52
0.001805	1100.	1020.	950.	2	0	0	0.00	144.71	10065.23

0
1490 NH CARD USED
*SECNO 4.420

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.00
CENTERLINE STATION AT 10000

4.42	6.32	1730.52	0.00	1730.00	1730.87	0.34	2.00	0.01	1737.00
3000.	0.	3000.	0.	0.	640.	0.	179.	61.	1737.60
0.62	0.00	4.69	0.00	0.028	0.045	0.045	0.000	1724.20	9546.24
0.002264	992.	992.	992.	3	0	1	0.00	121.38	10067.62

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1
28-APR-86 13:43:35 PAGE 37

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - NON EM

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	2.230	0.00	0.00	0.00	1686.20	2500.00	1695.70	0.00	1695.71	0.88	1.13	3246.16	2671.20
	2.230	0.00	0.00	0.00	1686.20	2700.00	1695.70	0.00	1695.72	1.02	1.22	3246.16	2671.20
	2.230	0.00	0.00	0.00	1686.20	3000.00	1695.70	0.00	1695.72	1.26	1.36	3246.16	2671.20
	2.27[illegible]	203.[illegible]	0.00	0.00	1686.50	2500.00	1695.68	0.00	1695.76	3.18	2.45	1471.85	1401.66
	2.270	203.00	0.00	0.00	1686.50	2700.00	1695.68	0.00	1695.78	3.72	2.65	1465.49	1399.76
	2.270	203.00	0.00	0.00	1686.50	3000.00	1695.68	0.00	1695.79	4.61	2.95	1465.30	1396.49
	2.284	100.00	0.00	0.00	1686.80	2500.00	1695.74	0.00	1695.79	0.82	1.81	1914.53	2749.95
	2.284	100.00	0.00	0.00	1686.80	2700.00	1695.75	0.00	1695.80	0.95	1.95	1935.20	2765.77
	2.284	100.00	0.00	0.00	1686.80	3000.00	1695.76	0.00	1695.83	1.17	2.16	1950.16	2777.21
*	2.285	1.00	1695.00	1696.00	1686.80	2500.00	1695.65	1695.65	1695.97	467.51	0.00	552.59	115.62
*	2.285	1.00	1695.00	1696.00	1686.80	2700.00	1695.67	1695.67	1696.02	500.32	0.00	573.72	120.71
*	2.285	1.00	1695.00	1696.00	1686.80	3000.00	1695.70	1695.70	1696.09	557.45	0.00	599.75	127.06
	2.301	87.00	1693.10	1696.00	1686.80	2500.00	1696.32	0.00	1696.37	12.26	2.36	1572.60	713.95
	2.301	87.00	1693.10	1696.00	1686.80	2700.00	1696.37	0.00	1696.43	12.26	2.42	1653.59	770.97
	2.301	87.00	1693.10	1696.00	1686.80	3000.00	1696.46	0.00	1696.51	12.15	2.49	1774.61	859.26
	2.302	1.00	0.00	0.00	1686.80	2500.00	1696.34	0.00	1696.37	0.53	1.52	2742.68	3437.94
	2.302	1.00	0.00	0.00	1686.80	2700.00	1696.43	0.00	1696.43	0.59	1.61	2822.12	3513.10
	2.302	1.00	0.00	0.00	1686.80	3000.00	1696.48	0.00	1696.52	0.68	1.74	2940.78	3627.91
	2.310	50.00	0.00	0.00	1685.00	2500.00	1696.33	0.00	1696.40	2.62	2.19	1428.01	1544.66
	2.310	50.00	0.00	0.00	1685.00	2700.00	1696.38	0.00	1696.46	2.91	2.32	1472.83	1583.23
	2.310	50.00	0.00	0.00	1685.00	3000.00	1696.46	0.00	1696.55	3.34	2.52	1540.68	1641.52
	2.330	110.00	0.00	0.00	1685.00	2500.00	1696.36	0.00	1696.43	2.51	2.15	1454.19	1579.36
	2.330	110.00	0.00	0.00	1685.00	2700.00	1696.42	0.00	1696.49	2.76	2.27	1502.63	1624.21
	2.330	110.00	0.00	0.00	1685.00	3000.00	1696.50	0.00	1696.59	3.14	2.45	1577.40	1693.78

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	2.540	1116.00	0.00	0.00	1690.00	2500.00	1696.64	0.00	1696.75	3.13	2.58	1005.32	1412.96
	2.540	1116.00	0.00	0.00	1690.00	2700.00	1696.73	0.00	1696.84	3.45	2.73	1025.26	1453.80
	2.540	1116.00	0.00	0.00	1690.00	3000.00	1696.85	0.00	1696.99	3.92	2.96	1054.75	1514.64
	2.780	1240.00	0.00	0.00	1690.90	2500.00	1697.08	0.00	1697.63	16.34	5.99	417.05	618.42
	2.780	1240.00	0.00	0.00	1690.90	2700.00	1697.20	0.00	1697.82	17.82	6.33	426.23	639.65
	2.780	1240.00	0.00	0.00	1690.90	3000.00	1697.38	0.00	1698.10	19.98	6.82	439.65	671.12
	3.040	1380.00	0.00	0.00	1695.80	2500.00	1701.16	0.00	1701.63	64.24	5.49	455.45	311.92
	3.040	1380.00	0.00	0.00	1695.80	2700.00	1701.45	0.00	1701.92	58.47	5.48	492.95	353.10
	3.040	1380.00	0.00	0.00	1695.80	3000.00	1701.87	0.00	1702.34	52.28	5.49	546.64	414.92
	3.256	1144.00	0.00	0.00	1706.80	2500.00	1711.08	0.00	1711.62	125.00	5.91	423.36	223.61
	3.256	1144.00	0.00	0.00	1706.80	2700.00	1711.13	0.00	1711.74	136.61	6.24	432.64	231.01
	3.256	1144.00	0.00	0.00	1706.80	3000.00	1711.22	0.00	1711.91	152.22	6.70	447.65	243.16
	3.262	30.00	0.00	0.00	1706.80	2500.00	1711.54	0.00	1711.92	72.56	4.92	507.70	293.56

3.262	30.00	0.00	0.00	1706.80	2700.00	1711.65	0.00	1712.06	75.55	5.12	527.43	310.63
3.262	30.00	0.00	0.00	1706.80	3000.00	1711.81	0.00	1712.26	79.00	5.38	557.79	337.55
3.274	63.25	1714.00	1713.00	1708.00	2500.00	1712.05	0.00	1712.55	112.81	5.66	441.78	235.36
3.274	63.25	1714.00	1713.00	1708.00	2700.00	1712.17	0.00	1712.71	117.14	5.86	460.86	249.44
3.274	63.25	1714.00	1713.00	1708.00	3000.00	1712.36	0.00	1712.94	122.60	6.14	490.28	270.94
3.280	43.25	0.00	0.00	1708.00	2500.00	1712.66	0.00	1712.87	31.75	3.69	678.04	443.71
3.280	43.25	0.00	0.00	1708.00	2700.00	1712.82	0.00	1713.04	32.35	3.80	709.89	474.73
3.280	43.25	0.00	0.00	1708.00	3000.00	1713.05	0.00	1713.29	32.78	3.95	759.25	523.97
3.470	976.00	0.00	0.00	1709.80	2500.00	1714.91	0.00	1715.50	21.42	6.14	407.06	540.15
3.470	976.00	0.00	0.00	1709.80	2700.00	1715.09	0.00	1715.69	21.32	6.25	432.30	584.74
3.470	976.00	0.00	0.00	1709.80	3000.00	1715.32	0.00	1715.96	21.24	6.40	470.27	650.94
3.490	120.00	0.00	0.00	1709.80	2500.00	1715.27	0.00	1715.73	15.48	5.43	461.18	635.36
3.490	120.00	0.00	0.00	1709.80	2700.00	1715.45	0.00	1715.92	15.50	5.53	490.83	685.73
3.490	120.00	0.00	0.00	1709.80	3000.00	1715.69	0.00	1716.19	15.61	5.68	535.26	759.42
3.506	84.00	1716.00	1715.00	1712.20	2500.00	1715.19	1715.19	1716.35	62.35	8.64	289.63	316.62
3.506	84.00	1718.00	1716.00	1712.20	2700.00	1715.34	1715.34	1716.52	61.21	8.74	310.28	345.10
3.506	84.00	1718.00	1716.00	1712.20	3000.00	1715.56	1715.56	1716.77	59.55	8.86	342.95	388.74
3.510	44.00	0.00	0.00	1712.00	2500.00	1716.36	1715.05	1716.70	14.15	4.76	553.32	664.61
3.510	44.00	0.00	0.00	1712.00	2700.00	1716.54	1715.20	1716.89	13.69	4.79	598.99	729.67
3.510	44.00	0.00	0.00	1712.00	3000.00	1716.79	1715.40	1717.14	12.89	4.84	670.51	835.64
3.690	908.00	0.00	0.00	1715.20	2500.00	1718.18	1718.15	1719.22	58.33	8.19	305.23	327.35
3.690	908.00	0.00	0.00	1715.20	2700.00	1718.28	1718.27	1719.40	59.69	8.48	318.22	348.86
3.690	908.00	0.00	0.00	1715.20	3000.00	1718.44	1718.44	1719.63	58.86	8.75	342.93	391.02
3.860	908.00	0.00	0.00	1715.20	2500.00	1723.30	0.00	1724.39	53.55	8.01	311.92	341.65
3.860	908.00	0.00	0.00	1715.20	2700.00	1723.44	0.00	1724.47	52.07	8.14	331.76	374.18
3.860	908.00	0.00	0.00	1715.20	3000.00	1723.59	0.00	1724.71	53.11	8.47	354.01	411.65

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.040	960.00	0.00	0.00	1721.00	2500.00	1726.37	0.00	1726.72	13.99	4.69	533.34	668.43
4.040	960.00	0.00	0.00	1721.00	2700.00	1726.54	0.00	1726.90	14.31	4.84	557.50	713.69
4.040	960.00	0.00	0.00	1721.00	3000.00	1726.79	0.00	1727.19	14.53	5.04	595.82	787.15
4.230	1020.00	0.00	0.00	1723.00	2500.00	1727.93	0.00	1728.34	17.81	5.16	484.14	592.39
4.230	1020.00	0.00	0.00	1723.00	2700.00	1728.12	0.00	1728.55	17.94	5.29	510.43	637.38
4.230	1020.00	0.00	0.00	1723.00	3000.00	1728.39	0.00	1728.85	18.05	5.46	549.66	706.05
4.420	992.00	0.00	0.00	1724.20	2500.00	1730.00	0.00	1730.30	21.59	4.33	577.13	538.01
4.420	992.00	0.00	0.00	1724.20	2700.00	1730.22	0.00	1730.53	22.02	4.48	602.87	575.43
4.420	992.00	0.00	0.00	1724.20	3000.00	1730.52	0.00	1730.87	22.64	4.69	639.77	630.45

LAS VEGAS WASH - NONDM

SUMMARY PRINTOUT TABLE 153

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.230	2500.00	1695.70	0.00	0.00	0.00	1175.47	0.00
2.230	2700.00	1695.70	0.00	0.00	0.00	1175.47	0.00
2.230	3000.00	1695.70	0.00	0.00	0.00	1175.47	0.00

	2.270	2500.00	1695.68	0.00	-0.02	0.00	910.34	203.00
	2.270	2700.00	1695.68	0.00	-0.02	0.00	937.49	203.00
	2.270	3000.00	1695.68	0.00	-0.02	0.00	962.33	203.00
	2.284	2500.00	1695.74	0.00	0.06	0.00	1157.57	100.00
	2.284	2700.00	1695.75	0.01	0.07	0.00	1173.00	100.00
	2.284	3000.00	1695.76	0.01	0.09	0.00	1184.07	100.00
*	2.285	2500.00	1695.65	0.00	-0.09	0.00	1088.85	1.00
*	2.285	2700.00	1695.67	0.02	-0.08	0.00	1108.18	1.00
*	2.285	3000.00	1695.70	0.03	-0.06	0.00	1131.44	1.00
	2.301	2500.00	1696.32	0.00	0.67	0.00	1444.07	87.00
	2.301	2700.00	1696.37	0.06	0.70	0.00	1453.35	87.00
	2.301	3000.00	1696.46	0.08	0.75	0.00	1467.12	87.00
	2.302	2500.00	1696.34	0.00	0.03	0.00	1446.16	1.00
	2.302	2700.00	1696.40	0.05	0.02	0.00	1457.24	1.00
	2.302	3000.00	1696.48	0.08	0.02	0.00	1470.70	1.00
	2.310	2500.00	1696.33	0.00	-0.01	0.00	831.32	50.00
	2.310	2700.00	1696.38	0.05	-0.02	0.00	852.79	50.00
	2.310	3000.00	1696.46	0.08	-0.02	0.00	884.29	50.00
	2.330	2500.00	1696.36	0.00	0.03	0.00	843.92	110.00
	2.330	2700.00	1696.42	0.06	0.04	0.00	866.77	110.00
	2.330	3000.00	1696.50	0.08	0.04	0.00	900.37	110.00
	2.540	2500.00	1696.64	0.00	0.28	0.00	234.14	1116.00
	2.540	2700.00	1696.73	0.08	0.31	0.00	235.84	1116.00
	2.540	3000.00	1696.85	0.12	0.35	0.00	238.34	1116.00
	2.780	2500.00	1697.08	0.00	0.43	0.00	75.45	1240.00
	2.780	2700.00	1697.20	0.12	0.47	0.00	75.64	1240.00
	2.780	3000.00	1697.38	0.18	0.52	0.00	75.90	1240.00
	3.040	2500.00	1701.16	0.00	4.09	0.00	126.74	1380.00
	3.040	2700.00	1701.45	0.29	4.26	0.00	128.17	1380.00
	3.040	3000.00	1701.87	0.41	4.49	0.00	130.20	1380.00
	3.256	2500.00	1711.08	0.00	9.92	0.00	178.39	1144.00
	3.256	2700.00	1711.13	0.05	9.68	0.00	179.34	1144.00
	3.256	3000.00	1711.22	0.08	9.35	0.00	180.85	1144.00

SECNO	Q	CHSEL	DIFWSP	DIFHSX	DIFKWS	TOPHIC	XLCH
3.262	2500.00	1711.54	0.00	0.46	0.00	186.79	30.00
3.262	2700.00	1711.65	0.11	0.52	0.00	188.70	30.00
3.262	3000.00	1711.81	0.16	0.59	0.00	191.61	30.00
3.274	2500.00	1712.05	0.00	0.50	0.00	149.67	63.25
3.274	2700.00	1712.17	0.13	0.52	0.13	155.76	63.25
3.274	3000.00	1712.36	0.18	0.55	0.31	164.71	63.25
3.280	2500.00	1712.66	0.00	0.61	0.00	207.17	43.25
3.280	2700.00	1712.82	0.16	0.64	0.16	209.95	43.25
3.280	3000.00	1713.05	0.23	0.69	0.39	214.18	43.25
3.470	2500.00	1714.91	0.00	2.26	0.00	145.65	976.00
3.470	2700.00	1715.09	0.17	2.27	0.17	149.99	976.00
3.470	3000.00	1715.32	0.23	2.27	0.41	167.50	976.00
3.490	2500.00	1715.27	0.00	0.36	0.00	162.34	120.00
3.490	2700.00	1715.45	0.17	0.36	0.17	176.57	120.00

	3.490	3000.00	1715.69	0.24	0.37	0.41	194.72	120.00
*	3.506	2500.00	1715.19	0.00	-0.09	0.00	130.07	84.00
*	3.506	2700.00	1715.34	0.15	-0.11	0.15	141.24	84.00
*	3.506	3000.00	1715.56	0.22	-0.13	0.37	157.30	84.00
	3.510	2500.00	1716.36	0.00	1.17	0.00	245.31	44.00
	3.510	2700.00	1716.54	0.18	1.20	0.18	264.97	44.00
	3.510	3000.00	1716.79	0.25	1.23	0.43	302.33	44.00
	3.690	2500.00	1718.18	0.00	1.82	0.00	142.24	508.00
	3.690	2700.00	1718.28	0.10	1.74	0.10	143.46	508.00
*	3.690	3000.00	1718.44	0.16	1.65	0.26	145.75	508.00
	3.860	2500.00	1723.30	0.00	5.12	0.00	140.32	508.00
	3.860	2700.00	1723.44	0.14	5.16	0.14	142.83	508.00
	3.860	3000.00	1723.59	0.15	5.15	0.29	145.60	508.00
	4.040	2500.00	1726.37	0.00	3.07	0.00	145.61	560.00
	4.040	2700.00	1726.54	0.16	3.10	0.16	147.43	560.00
	4.040	3000.00	1726.79	0.26	3.20	0.42	150.27	560.00
	4.230	2500.00	1727.93	0.00	1.55	0.00	137.10	1020.00
	4.230	2700.00	1728.12	0.19	1.58	0.19	140.20	1020.00
	4.230	3000.00	1728.39	0.28	1.60	0.46	144.71	1020.00
	4.420	2500.00	1730.00	0.00	2.08	0.00	115.19	992.00
	4.420	2700.00	1730.22	0.22	2.10	0.22	120.09	992.00
	4.420	3000.00	1730.52	0.31	2.13	0.52	121.38	992.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	2.285	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	2.285	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	2.285	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	2.285	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	2.285	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	2.285	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	2.285	PROFILE= 3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	2.285	PROFILE= 3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.506	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.506	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.506	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.506	PROFILE= 2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.506	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.506	PROFILE= 3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.693	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.690	PROFILE= 3	MINIMUM SPECIFIC ENERGY

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

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EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   5-MAY-88 TIME   12:57:21          *
 *************************************************
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X           XXXXX    XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  51,52,53,54,55
  MODIFICATION -  50,51,52,53,54,55
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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR (D/S REACH)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        0.        0.  0.000000      0.00      0.5       0.  1695.700     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       -1.000     0.000    -1.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
      150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.030     0.100     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
GT      1.000  7800.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     7.100     0.000     0.000     0.000     0.000   900.000  3092.000     0.000     0.000
                SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 2506
X1      2.230    38.000  2456.000  2740.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1716.000   900.000  1712.500  1110.000  1708.000  1250.000  1704.000  1450.000  1700.000  1605.000
GR   1696.000  1885.000  1692.300  1910.000  1692.000  1935.000  1693.700  2000.000  1694.400  2187.000
GR   1694.500  2353.000  1694.200  2420.000  1692.900  2429.000  1696.000  2456.000  1692.600  2482.000
GR   1692.600  2494.000  1688.200  2506.000  1689.300  2552.000  1689.800  2560.000  1689.700  2606.000
GR   1689.700  2628.000  1690.300  2646.000  1692.100  2660.000  1691.200  2689.000  1691.500  2701.000
GR   1694.000  2740.000  1692.300  3010.000  1690.200  3022.000  1692.700  3056.000  1702.300  3092.000
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GR	1700.000	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.000	4060.000	1700.000	5900.000	1704.000	7440.000	0.000	0.000	0.000	0.000
AC	0.032	0.360	1.230	1.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2219

X1	2.270	35.000	2155.000	2345.000	220.000	150.000	200.000	0.000	0.000	0.000
GR	1716.000	1.000	1712.000	35.000	1708.000	225.000	1704.000	880.000	1700.000	1085.000
GR	1700.000	1200.000	1696.000	1350.000	1696.000	1580.000	1695.500	2000.000	1695.500	2032.000
GR	1694.500	2093.000	1693.900	2120.000	1696.300	2142.000	1695.300	2155.000	1693.400	2165.000
GR	1689.700	2175.000	1689.700	2210.000	1688.500	2219.000	1689.900	2252.000	1690.100	2277.000
GR	1693.100	2297.000	1693.100	2337.000	1693.500	2345.000	1694.100	2385.000	1694.700	2405.000
GR	1694.800	2550.000	1696.500	2600.000	1693.000	2760.000	1704.000	2930.000	1700.000	2945.000
GR	1696.000	2955.000	1696.000	3670.000	1700.000	3680.000	1700.000	5025.000	1704.000	7140.000
GR	1708.000	7380.000	1708.000	7590.000	1710.000	9105.000	0.000	0.000	0.000	0.000

AC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2323

X1	2.284	25.000	2250.000	2395.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1704.000	3052.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000

CENTERLINE STATION AT 2323

X1	2.285	63.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2248.000	1695.000	1695.000	2249.900	1696.300	1686.800
BT	2396.100	1696.300	1686.800	2357.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2248.000	1692.300	2249.800
GR	1686.800	2249.900	1686.800	2263.800	1692.300	2263.900	1692.300	2264.500	1686.800	2264.600
GR	1686.800	2278.500	1692.300	2278.600	1692.300	2279.200	1686.800	2279.300	1686.800	2293.200
GR	1692.300	2293.300	1692.300	2293.900	1686.800	2294.000	1686.800	2307.900	1692.300	2308.000
GR	1692.300	2308.600	1686.800	2308.700	1686.800	2322.600	1692.300	2322.700	1692.300	2323.300
GR	1686.800	2323.400	1686.800	2337.300	1692.300	2337.400	1692.300	2338.000	1686.800	2338.100
GR	1686.800	2352.000	1692.300	2352.100	1692.300	2352.700	1686.800	2352.800	1686.800	2366.700
GR	1692.300	2366.800	1692.300	2367.400	1686.800	2367.500	1686.800	2381.400	1692.300	2381.500
GR	1692.300	2382.100	1686.800	2382.200	1686.800	2396.100	1692.300	2396.200	1695.000	2397.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

**** VEGAS VALLEY DRIVE (NB) ****
2* DEBRIS LOADING
CENTERLINE STATION AT 2323

X1	2.301	63.000	2250.000	2395.000	87.000	87.000	87.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2250.000	1695.000	1695.000	2251.900	1696.300	1686.800
BT	2394.100	1693.100	1686.800	2395.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1692.300	2251.800
GR	1686.800	2251.900	1686.800	2261.800	1692.300	2261.900	1692.300	2266.500	1686.800	2266.600
GR	1686.800	2276.500	1692.300	2276.600	1692.300	2281.200	1686.800	2281.300	1686.800	2291.200
GR	1692.300	2291.300	1692.300	2295.900	1686.800	2296.000	1686.800	2305.900	1692.300	2306.000
GR	1692.300	2310.600	1686.800	2310.700	1686.800	2320.600	1692.300	2320.700	1692.300	2325.300
GR	1686.800	2325.400	1686.800	2335.300	1692.300	2335.400	1692.300	2340.000	1686.800	2340.100
GR	1686.800	2350.000	1692.300	2350.100	1692.300	2354.700	1686.800	2354.800	1686.800	2364.700
GR	1692.300	2364.800	1692.300	2369.400	1686.800	2369.500	1686.800	2379.400	1692.300	2379.500
GR	1692.300	2384.100	1686.800	2384.200	1686.800	2394.100	1692.300	2394.200	1695.000	2395.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000

GR	1696.000	5060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2323

X1	2.362	25.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1696.000	2000.000	1696.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1696.000	2395.000	1696.000	2655.000	1696.800	2692.000	1694.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000

CENTERLINE STATION AT 2240

X1	2.314	44.000	2181.000	2420.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1930.000	1704.000	2995.000	1704.000	0.000	0.000	0.000
GR	1716.000	250.000	1712.000	270.000	1708.000	430.000	1704.000	790.000	1700.000	1000.000
GR	1696.000	1410.000	1696.000	1505.000	1700.000	1515.000	1700.000	1620.000	1704.000	1670.000
GR	1704.000	1930.000	1700.000	1940.000	1696.700	2000.000	1696.700	2032.000	1694.900	2102.000
GR	1694.900	2164.000	1696.600	2172.000	1698.000	2181.000	1694.200	2198.000	1690.100	2208.000
GR	1690.100	2223.000	1689.000	2229.000	1689.000	2251.000	1690.800	2279.000	1693.700	2300.000
GR	1691.100	2364.000	1693.100	2388.000	1694.200	2420.000	1695.400	2443.000	1695.400	2564.000
GR	1696.500	2600.000	1696.000	2760.000	1696.000	2955.000	1700.000	2965.000	1704.000	2995.000
GR	17 [illegible]	3005.000	1696.000	3180.000	1696.000	3585.000	1700.000	3595.000	1700.000	4990.000
GR	1704.000	6950.000	1708.000	7350.000	1708.000	7580.000	1710.000	9120.000	0.000	0.000

NC	0.045	0.035	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
GT	1.000	7800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2240

X1	2.336	0.000	0.000	0.000	125.000	95.000	110.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1930.000	1704.000	2995.000	1704.000	0.000	0.000	0.000

NC	0.068	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2872

X1	2.540	36.000	2727.000	2917.000	1200.000	900.000	1116.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3045.000	1702.400	0.000	0.000	0.000
GR	1712.000	705.000	1708.000	706.000	1704.000	785.000	1700.000	1045.000	1700.000	1815.000
GR	1700.000	1815.000	1698.000	2100.000	1697.800	2578.000	1697.700	2690.000	1698.200	2703.000
GR	1695.200	2710.000	1695.200	2727.000	1691.000	2744.000	1691.800	2793.000	1691.400	2843.000
GR	1690.000	2872.000	1691.000	2896.000	1695.300	2917.000	1701.400	3025.000	1702.400	3045.000
GR	1701.800	3121.000	1701.800	3181.000	1700.600	3239.000	1700.600	3326.000	1699.100	3365.000
GR	1697.700	3430.000	1696.900	3499.000	1696.800	3561.000	1696.800	3577.000	1701.000	3670.000
GR	1700.000	3720.000	1700.000	5070.000	1704.000	7190.000	1708.000	7640.000	1708.000	7875.000
GR	1710.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 3462

X1	2.780	34.000	3417.000	3503.000	950.000	900.000	1240.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	3417.000	1705.200	3671.000	1702.800	0.000	0.000	0.000
GR	1712.000	0.000	1708.000	305.000	1704.000	885.000	1704.000	2120.000	1704.000	2260.000
GR	1704.000	2450.000	1704.000	3380.000	1705.200	3417.000	1705.200	3417.000	1705.200	3417.000
GR	1705.200	3417.000	1693.600	3427.000	1691.900	3431.000	1691.300	3434.000	1691.300	3449.000
GR	1690.900	3451.000	1690.900	3473.000	1691.600	3496.000	1702.700	3503.000	1703.500	3671.000
GR	1702.600	3704.000	1701.900	3718.000	1701.900	3726.000	1701.900	3742.000	1703.000	3748.000
GR	1702.800	3778.000	1702.500	4003.000	1701.500	4234.000	1702.500	4359.000	1703.500	4460.000
GR	1702.500	5071.000	1704.000	5640.000	1708.000	7010.000	1710.000	7630.000	0.000	0.000

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NH	5.000	0.045	9918.000	0.050	10138.000	0.045	10362.000	0.130	12103.000	0.040
NH	13576.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.048	36.000	9918.000	10138.000	600.000	1450.000	1380.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9798.000	1714.100	0.000	0.000	0.000	0.000	0.000

GR	1716.000	5153.000	1712.000	5553.000	1708.000	6393.000	1704.000	7208.000	1704.000	7323.000
GR	1704.000	7453.000	1706.000	7573.000	1708.000	9473.000	1712.000	9713.000	1714.100	9798.000
GR	1713.500	9885.000	1709.300	9918.000	1708.300	9954.000	1704.600	9969.000	1697.000	9987.000
GR	1697.000	9993.000	1697.000	10012.000	1695.100	10033.000	1695.800	10057.000	1696.000	10067.000
GR	1698.500	10069.000	1698.000	10076.000	1696.800	10079.000	1696.800	10093.000	1702.800	10108.000
GR	1709.500	10138.000	1709.700	10173.000	1708.400	10188.000	1708.400	10253.000	1708.400	10268.000
GR	1712.000	10309.000	1711.900	10335.000	1711.100	10362.000	1709.300	10860.000	1712.000	12103.000
GR	1716.000	13578.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.045	0.045	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.256	32.000	9863.000	10103.000	800.000	1250.000	1144.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9824.000	1714.900	10273.000	1716.800	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1707.700	9983.000	1706.800	9995.000	1706.800	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.262	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9824.000	1714.900	10273.000	1716.800	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9824.000	10273.000	0.000	0.000
		**** WATERWOOD GOLF COURSE BRIDGE #1**								
		2' DEBRIS LOADING								
		SINGLE CROSS SECTION NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	3.274	53.000	9900.000	10100.000	58.250	68.250	63.250	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	2.000	9900.000	1714.000	1713.000	10100.000	1714.000	1713.000	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1712.000	9880.000
GR	1714.000	9900.000	1710.000	9923.100	1713.000	9923.200	1713.000	9928.100	1710.000	9928.200
GR	1709.000	9949.000	1713.000	9949.100	1713.000	9954.000	1709.000	9954.100	1708.000	9975.000
GR	1713.000	9975.100	1713.000	9980.000	1708.000	9980.100	1708.000	10020.000	1713.000	10020.100
GR	1713.000	10025.000	1708.000	10025.100	1709.000	10046.000	1713.000	10046.100	1713.000	10051.000
GR	1709.000	10051.100	1710.000	10072.000	1713.000	10072.100	1713.000	10077.000	1710.000	10077.100
GR	1714.000	10100.000	1712.000	10120.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000
GR	1712.000	10545.000	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000
GR	1720.000	13155.000	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	0.000	0.000	0.000	0.000	9824.000	10273.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.260	32.000	9863.000	10103.000	43.250	53.250	43.250	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1708.000	9983.000	1708.000	9995.000	1708.000	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9942.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.043	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9552.000	10218.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.470	31.000	9942.000	10056.000	620.000	1000.000	976.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000

GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000
GR	1716.700	9914.000	1716.500	9942.000	1709.800	10000.000	1710.700	10017.000	1711.600	10056.000
GR	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000
GR	1728.000	11955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000
GR	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9552.000	10218.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.49	0.000	0.000	0.000	120.000	120.000	120.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9952.000	0.023	10048.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9610.000	10218.000	0.000	0.000

**** WINTERWOOD GOLF COURSE BRIDGE #2**

2* DEBRIS LOADING

SINGLE CROSS SECTION NORMAL BRIDGE

CENTERLINE STATION AT 10000

X1	3.506	40.000	9952.000	10048.000	84.000	84.000	84.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	2.000	9952.000	1718.000	1716.000	10048.000	1718.000	1716.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1720.000	9610.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000
GR	1715.100	9886.000	1716.700	9914.000	1716.000	9952.000	1712.200	9952.100	1712.200	9986.900
GR	1716.000	9987.000	1716.000	9992.400	1712.200	9992.500	1712.200	10007.300	1716.000	10007.400
GR	1716.000	10012.900	1712.200	10013.000	1712.200	10047.900	1718.000	10048.000	1713.400	10076.000
GR	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000	1720.000	10955.000
GR	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000	1732.000	15535.000

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NH	6.000	0.045	9552.000	0.028	9942.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9610.000	10218.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.510	32.000	9942.000	10056.000	44.000	44.000	44.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1720.000	9610.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000
GR	1715.100	9886.000	1716.700	9914.000	1716.500	9942.000	1712.000	10000.000	1712.000	10017.000
GR	1712.000	10056.000	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000
GR	1717.000	10655.000	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000
GR	1728.000	14405.000	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	9645.000	0.028	9897.000	0.023	10222.000	0.110	12895.000	0.045
NH	14765.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.690	33.000	9897.000	10222.000	950.000	850.000	908.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9681.000	1731.100	10222.000	1723.800	0.000	0.000	0.000
GR	1732.000	3795.000	1728.000	3880.000	1724.000	3970.000	1724.000	4515.000	1720.000	5705.000
GR	1716.000	6660.000	1716.000	6785.000	1720.000	7375.000	1720.000	8060.000	1721.700	8100.000
GR	1720.000	8140.000	1720.000	9320.000	1724.000	9535.000	1728.600	9645.000	1731.100	9681.000
GR	1721.400	9747.000	1720.700	9780.000	1720.100	9861.000	1720.300	9897.000	1715.400	9930.000
GR	1716.800	9971.000	1715.200	9994.000	1715.200	10005.000	1715.400	10025.000	1715.400	10035.000
GR	1719.000	10059.000	1723.800	10222.000	1720.400	10355.000	1724.000	10545.000	1724.000	12895.000
GR	1728.000	13735.000	1728.000	14075.000	1732.000	14765.000	0.000	0.000	0.000	0.000
NH	7.000	0.045	6875.000	0.130	9105.000	0.028	9521.000	0.023	10111.000	0.028
NH	10364.000	0.110	12500.000	0.045	14640.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.660	50.000	9921.000	10111.000	950.000	880.000	908.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9828.000	1726.300	10137.000	1729.300	0.000	0.000	0.000
GR	1740.000	3430.000	1736.000	3685.000	1732.000	4030.000	1728.000	4505.000	1724.000	5940.000

GR	1724.000	6875.000	1724.000	6875.000	1724.000	8840.000	1727.900	9105.000	1727.900	9177.000
GR	1724.700	9184.000	1724.700	9203.000	1725.900	9230.000	1728.800	9255.000	1728.000	9326.000
GR	1728.000	9410.000	1727.400	9426.000	1725.000	9448.000	1723.800	9544.000	1723.800	9613.000
GR	1724.900	9619.000	1724.900	9624.000	1724.200	9629.000	1723.200	9637.000	1723.200	9652.000
GR	1725.100	9656.000	1725.300	9725.000	1726.000	9762.000	1726.300	9828.000	1726.300	9875.000
GR	1725.000	9921.000	1721.300	9941.000	1720.300	9994.000	1719.200	9997.000	1719.200	10002.000
GR	1720.700	10004.000	1720.700	10038.000	1723.900	10078.000	1727.200	10111.000	1729.300	10137.000
GR	1728.100	10165.000	1726.900	10221.000	1726.200	10283.000	1726.700	10364.000	1724.000	10960.000
GR	1724.000	11920.000	1728.000	12500.000	1728.000	13260.000	1729.800	13910.000	1732.000	14640.000
NH	7.000	0.050	5160.000	0.130	9615.000	0.030	9513.000	0.028	10100.000	0.030
NH	10271.000	0.130	12400.000	0.045	14210.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.04	38.000	9913.000	10100.000	1000.000	900.000	960.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	9672.000	1722.400	10317.000	1721.200	0.000	0.000	0.000
GR	1736.000	3440.000	1732.000	4945.000	1732.000	5160.000	1732.000	8340.000	1728.000	8740.000
GR	1732.000	9485.000	1732.000	9586.000	1729.900	9619.000	1729.900	9650.000	1732.400	9672.000
GR	1732.400	9771.000	1729.900	9794.000	1729.900	9827.000	1729.200	9913.000	1722.000	9949.000
GR	1721.700	9994.000	1721.000	9997.000	1721.000	10003.000	1722.500	10005.000	1722.100	10047.000

GR	1727.400	10079.000	1730.900	10100.000	1731.800	10113.000	1732.000	10136.000	1731.500	10172.000
GR	1730.100	10196.000	1730.500	10232.000	1731.200	10271.000	1731.200	10317.000	1726.600	10333.000
GR	1726.600	10399.000	1731.500	10413.000	1731.500	10442.000	1728.000	10890.000	1728.000	12400.000
GR	1732.000	13451.000	1732.000	13980.000	1736.000	14210.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	4310.000	0.130	7565.000	0.040	8365.000	0.130	8720.000	0.030
NH	9900.000	0.028	10100.000	0.030	10247.000	0.130	12915.000	0.100	14920.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.230	36.000	9900.000	10247.000	1100.000	950.000	1020.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	8140.000	1736.000	10350.000	1734.500	0.000	0.000	0.000
GR	1740.000	3575.000	1736.000	3850.000	1736.000	4310.000	1736.000	6095.000	1732.000	7375.000
GR	1732.000	7565.000	1736.000	8140.000	1736.000	8365.000	1736.000	8720.000	1732.000	9738.000
GR	1732.400	9900.000	1723.600	9945.000	1723.100	9987.000	1723.000	9996.000	1723.000	10003.000
GR	1723.500	10003.000	1724.800	10040.000	1727.300	10053.000	1729.700	10080.000	1730.800	10095.000
GR	1732.500	10180.000	1733.600	10247.000	1734.500	10350.000	1729.500	10363.000	1730.100	10427.000
GR	1733.800	10440.000	1733.700	10515.000	1731.000	10528.000	1731.200	10616.000	1730.200	10628.000
GR	1731.500	11655.000	1733.900	10661.000	1732.000	10860.000	1732.000	12915.000	1736.000	13980.000
GR	1738.000	14920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.050	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9731.000	1739.700	10236.000	1738.000	0.000	0.000	0.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9794.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.800	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10095.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300

*SECNO 2.230

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 900.0 3092.0 TYPE= 1 TARGET= 2192.000
SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 2506

2.23	7.53	1695.70	0.00	0.00	1695.84	0.14	0.00	0.00	1696.00
7800.	2190.	4817.	793.	980.	1362.	903.	0.	0.	1694.00
0.00	2.23	3.54	0.88	0.030	0.035	0.100	0.000	1688.20	1686.88
0.000853	.	.	.		0	3	0.00	1175.47	3067.25

*SECNO 2.270

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 2219

2.27	6.94	1695.44	1695.10	0.00	1696.41	0.97	0.32	0.25	1695.30
7800.	2 .	6975.	626.	72.	838.	375.	10.	4.	1693.50
0.01	2.79	8.33	1.67	0.030	0.030	0.060	0.000	1688.50	2035.55
0.003943	223.	203.	150.	6	12	0	0.00	663.66	2797.74

CCHV= 0.300 CEHV= 0.500
*SECNO 2.284

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.28	9.66	1696.46	0.00	0.00	1696.72	0.26	0.10	0.21	1695.00
7800.	1059.	6321.	420.	898.	1389.	630.	15.	6.	1695.00
0.01	1.18	4.55	0.67	0.030	0.030	0.060	0.000	1686.80	1436.12
0.000466	100.	100.	100.	3	6	0	0.00	1468.07	2908.66

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.285

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.29	9.55	1696.35	1696.24	0.00	1696.84	0.49	0.00	0.11	1766.00
7800.	0.	0.	7800.	0.	0.	1355.	15.	6.	1766.00
0.01	0.00	0.00	5.59	0.030	0.030	0.060	0.000	1686.80	1439.31
0.042124	1.	1.	1.	4	14	0	-1360.67	1480.43	2906.92

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1696.35

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 STA=    1439.     2000.     2248.     2655.     2852.     2907.
  PER Q=    27.7      26.9      13.1      23.8       8.5
  AREA=   473.3     336.4     231.2     262.2      92.2
   VEL=     4.6       5.2       4.4       7.1       7.2

 *SECNO 2.301

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

 3470 ENCROACHMENT STATIONS=       0.0    3032.0  TYPE=     1  TARGET=    3031.999
                 **** VEGAS VALLEY DRIVE (NB) ****
                 ** DEBRIS LOADING
                 CENTERLINE STATION AT 2323
     2.30     10.42  1697.22      0.00      0.00  1697.36      0.14      0.42      0.10  1695.00
     7800.     4750.     1370.     1679.     1517.      363.     1028.       19.       9.  1695.00
      0.02      3.13      3.77      1.65      1.33      0.030     0.060     0.000  1686.80  1413.61
 0.001732        87.       87.       87.         2         0         0  -895.71  1507.32  2920.94

 FLOW DISTRIBUTION FOR SECNO=     2.30          CWSEL=   1697.22

 STA=    1414.     1450.     2000.     2250.     2395.     2655.     2692.     2852.     2921.
  PER Q=      0.4      35.6      24.8      17.6       8.4       0.5       9.5       3.1
  AREA=     22.1     942.1     553.2     363.1     445.4      35.6     394.1     145.2
   VEL=      1.5       3.8       3.5       3.9       1.5       1.0       1.9       1.7
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   SECNO     DEPTH     CWSEL     CRIWS     *SELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TLA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCRAR     TOPWID       ENDST

 *SECNO 2.302

 347  ENCROACHMENT STATIONS=       0.0    3032.0  TYPE=     1  TARGET=    3031.999
                 CENTERLINE STATION AT 2323
     2.30     10.42  1697.22      0.00      0.00  1697.36      0.14      0.00      0.00  1695.00
     7800.     1836.     5315.      649.     1521.     1498.     1022.       19.       9.  1695.00
      0.02      1.21      3.55      0.63      0.33      0.030     0.060     0.000  1686.80  1413.50
 0.000257         1.        1.        1.         0         0         0      0.00  1507.51  2921.00

 *SECNO 2.310

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=    1930.0    2995.0  TYPE=     1  TARGET=    1065.000
  ELENCL=   1704.00  ELENCR=   1704.00
                 CENTERLINE STATION AT 2240
     2.31      8.13  1697.13      0.00      0.00  1697.49      0.36      0.02      0.11  1698.00
     7800.      643.     6451.      706.      260.     1240.      671.       23.       11.  1694.20
      0.03      2.48      5.20      1.05     0.030     0.030     0.060     0.000  1689.00  1992.09
 0.001214        50.       50.       50.         3         0         0      0.00   956.32  2957.84

 CCHV=    0.100  CEHV=    0.300
 *SECNO 2.330

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=    1930.0    2995.0  TYPE=     1  TARGET=    1065.000
  ELENCL=   1704.00  ELENCR=   1704.00
                 CENTERLINE STATION AT 2240
```

2.33	8.35	1697.35	0.00	0.00	1697.62	0.27	.11	0.01	1698.70
7800.	458.	5985.	1357.	300.	1291.	788.	28.	13.	1694.20
0.03	1.53	4.64	1.72	0.045	0.030	0.035	0.000	1689.00	1988.13
0.000916	125.	110.	95.	2	0	0	0.00	563.20	2958.38

0
*SECNO 2.540

3470 ENCROACHMENT STATIONS= 0.0 3045.0 TYPE= 1 TARGET= 3044.999
CENTERLINE STATION AT 2872

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.54	8.29	1698.29	0.00	0.00	1698.80	0.51	1.11	0.07	1695.20
7800.	221.	7477.	102.	319.	1275.	79.	79.	37.	1695.30
0.09	0.69	5.87	1.31	0.060	0.030	0.050	0.000	1690.00	2059.17
0.001116	120.	1116.	900.	2	0	0	0.00	510.70	2969.88

0
*SECNO 2.780

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 3417.0 3671.0 TYPE= 1 TARGET= 254.000
ELENCL= 1705.20 ELENCR= 1703.50
CENTERLINE STATION AT 3462

2.78	8.47	1699.37	0.00	0.00	1702.05	2.68	2.60	0.65	1705.20
7800.	0.	7800.	0.	0.	594.	0.	110.	48.	1702.70
0.11	0.00	13.13	0.00	0.060	0.030	0.050	0.000	1690.50	3422.03
0.005388	950.	1240.	900.	2	0	0	0.00	78.87	3500.90

0
1490 NH CARD USED
*SECNO 3.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9798.0 13578.0 TYPE= 1 TARGET= -9758.000
ELENCL= 1714.10 ELENCR= 100000.00
CENTERLINE STATION AT 10000

3.04	11.13	1706.93	0.00	0.00	1707.50	0.57	5.24	0.21	1709.30
7800.	0.	7800.	0.	0.	1285.	0.	139.	52.	1709.50
0.18	0.00	6.05	0.00	0.060	0.050	0.050	0.000	1695.80	9959.56
0.002827	600.	1380.	1450.	3	0	0	0.00	166.93	10126.49

0
*SECNO 3.256

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
ELENCL= 1714.90 ELENCR= 1716.80
CENTERLINE STATION AT 10000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3.26	6.19	1712.99	0.00	0.00	1714.48	1.48	6.71	0.27	1714.30
7800.	.	7800.	0.	0.	798.	0.	167.	57.	1714.70
.21	[illegible]	9.78	[illegible]	.045	0.050	0.045	0.000	1706.80	9876.68
0.018684	800.	1144.	1250.	3	0	0	0.00	213.17	10089.85

*SECNO 3.262

3301 HV CHANGED MORE THAN HVINS

347[illegible] ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
ELENCL= 1714.90 ELENCR= 1716.80
CENTERLINE STATION AT 10000

3.26	7.21	1714.31	0.00	0.00	1714.51	0.90	0.38	0.06	1714.30
7800.	.	7800.	0.	0.	1024.	0.	167.	57.	1714.70
0.21	0.00	7.61	0.00	0.045	0.050	0.045	0.000	1706.80	9866.01
0.009079	30.	30.	30.	4	0	0	0.00	231.69	10097.70

CCHN= [illegible] CCHV= 0.300
*SECNO 3.274

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

347[illegible] ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
**** WINTERWOOD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.27	7.02	1715.02	0.00	0.00	1716.06	1.04	1.98	0.07	1714.00
7800.	838.	6127.	835.	89.	792.	84.	169.	58.	1714.00
0.21	9.42	7.73	9.94	0.045	0.050	0.045	0.000	1708.00	9824.00
0. 43125	68.	68.	68.	2	0	[illegible]	-194.25	324.78	10148.78

FLOW DISTRIBUTION FOR SECNO= 3.27 CHSEL= 1715.02

STA=	9824.	9863.	9880.	9900.	10100.	10120.	10149.
PER Q=	.8	4.2	5.7	78.6	5.7	5.0	
AREA=	16.6	31.9	43.5	792.7	40.5	43.5	
VEL=	3.9	10.4	10.9	7.7	10.5	9.0	

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

*SECNO 3.280

3301 HV CHANGED MORE THAN HVINS

347[illegible] ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
CENTERLINE STATION AT 10000

3.28	8.15	1716.15	0.00	0.00	1716.55	0.40	0.29	0.19	1714.30
7800.	136.	7614.	60.	61.	1488.	43.	170.	58.	1714.70
0.22	2.22	5.11	1.40	0.045	0.050	0.045	0.000	1708.00	9824.00
0.002603	43.	43.	53.	2	0	0	0.00	345.48	10169.48

CCHN= 0.100 CCHV= 0.300
149[illegible] NH CARD USED
*SECNO 3.470

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.47	8.00	1717.80	0.00	0.00	1718.70	0.90	1.99	0.15	1716.50
7800.	859.	5636.	1306.	348.	657.	268.	201.	67.	1711.60
0.25	2.47	8.57	4.88	0.028	0.023	0.028	0.000	1709.80	9552.00
0.001712	620.	976.	1000.	2	0	0	0.00	597.58	10149.58

*SECNO 3.490

347 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.49	8.47	1718.27	0.00	0.00	1718.89	0.62	0.17	0.03	1716.50
7800.	1270.	5228.	1302.	530.	711.	313.	205.	68.	1711.60
0.26	2.40	7.36	4.15	0.023	0.023	0.028	0.000	1709.80	9552.00
0.001136	120.	120.	120.	4	0	0	0.00	605.39	10157.39

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3.506

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TOA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCFWID	ENDST

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 608.000
**** WINTERWOOD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	6.18	1718.38	0.00	0.00	1719.16	0.78	0.20	0.08	1718.00
7800.	3129.	2291.	2380.	483.	359.	283.	207.	70.	1718.00
0.26	6.48	6.38	8.40	0.028	0.023	0.028	0.000	1712.20	9634.81
0.007262	84.	84.	84.	3	0	0	-191.93	524.61	10159.42

FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1718.38

STA=	9635.	9717.	9833.	9886.	9914.	9952.	10048.	10076.	10159.
PER Q=	4.7	11.3	14.3	7.4	2.3	29.4	6.4	22.2	
AREA=	80.3	156.8	136.5	69.6	39.4	359.3	75.2	208.0	
VEL=	4.6	5.6	8.2	8.3	4.6	6.4	8.7	8.3	

1490 NH CARD USED
*SECNO 3.510

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 608.000
CENTERLINE STATION AT 10000

3.51	6.88	1718.88	0.00	0.00	1719.35	0.47	0.10	0.09	1716.50
7800.	1885.	4362.	1553.	647.	654.	375.	209.	70.	1712.00
0.26	2.91	6.67	4.14	0.028	0.023	0.028	0.000	1712.00	9627.20
0.001039	44.	44.	44.	4	0	0	0.00	540.51	10167.70

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
CENTERLINE STATION AT 10000

3.69	5.73	1720.93	1720.93	0.00	1722.33	1.40	1.68	0.28	1720.30
7800.	169.	7631.	0.	70.	796.	0.	235.	80.	1723.80
0.29	2.41	9.58	0.00	0.028	0.023	0.028	0.000	1715.20	9769.23
0.004155	950.	908.	850.	23	15	0	0.00	355.26	10124.49

1490 NH CARD USED
*SECNO 3.860

3301 HV CHANGED MORE THAN HVINS

7105 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9828.0 10137.0 TYPE= 1 TARGET= 309.000
ELENCL= 1726.30 ELENCR= 1729.30
CENTERLINE STATION AT 10000

3.86	6.53	1725.73	1725.73	0.00	1727.65	1.92	4.02	0.16	1725.00
7800.	17.	7783.	0.	9.	699.	0.	252.	85.	1727.20
0.31	1.86	11.13	0.00	0.028	0.023	0.028	0.000	1719.20	9895.31
0.004733	950.	908.	880.	2	8	0	0.00	200.95	10096.26

1490 NH CARD USED
*SECNO 4.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9672.0 10317.0 TYPE= 1 TARGET= 645.000
ELENCL= 1732.40 ELENCR= 1731.20
CENTERLINE STATION AT 10000

4.04	8.58	1729.58	0.00	0.00	1730.42	0.84	2.67	0.11	1729.20
7800.	6.	7794.	0.	9.	1058.	0.	271.	90.	1730.90
0.35	0.70	7.37	0.00	.030	0.028	0.028	0.000	1721.00	9866.03
0.001830	1000.	960.	900.	3	0	0	0.00	226.06	10092.09

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1729.58

STA= 9866. 9913. 10100.
PER Q= 0.1 99.9
AREA= 9.0 1057.9

```
     VEL=       0.7       7.4

 1490 NH CARD USED
 *SECNO 4.230

 3470 ENCROACHMENT STATIONS=     8140.0    10350.0   TYPE=      1  TARGET=     2210.000
  ELENCL=   1736.00  ELENCR=   1734.50
                    CENTERLINE STATION AT 10000
       4.23       8.51  1731.51       0.00       0.00  1732.30       0.79       1.87       0.01  1732.40
     7800.          0.     7800.         0.         0.     1095.         0.        297.        96.  1733.60
       0.39       0.00       7.12       0.00      0.030      0.030      0.028      0.000  1723.00  9904.53
  0.001838       1130.      1020.       950.          2          0          0       0.00   226.14 10130.68

 1490 NH CARD USED
 *SECNO 4.420

 3470 ENCROACHMENT STATIONS=     9731.0    10236.0   TYPE=      1  TARGET=      505.000
  ELENCL=   1739.70  ELENCR=   1738.00
                    CENTERLINE STATION AT 10000
       4.42       9.71  1733.91       0.00       0.00  1734.71       0.81       2.41       0.01  1737.00
     7800.          0.     7800.         0.         0.     1082.         0.        321.       100.  1737.60
       0.43       0.00       7.21       0.00      0.030      0.045      0.028      0.000  1724.20  9940.36
  0.003353        992.       992.       992.          2          0          0       0.00   143.61 10083.97

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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   LAS VEGAS WASH - 25-YE
 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
      2.230       0.00       0.00       0.00    1688.20    7800.00    1695.70       0.00    1695.84       8.53       3.54    3246.16    2671.26
      2.270     203.00       0.00       0.00    1688.50    7800.00    1695.44    1695.10    1696.41      39.43       8.33    1284.34    1242.21
      2.284     100.00       0.00       0.00    1688.80    7800.00    1696.46       0.00    1696.72       4.68       4.55    2917.47    3605.12
      2.285       1.00    1695.00    1696.00    1688.80    7800.00    1696.35    1696.24    1696.84     421.24       0.00    1394.91     380.04
      2.301      87.00    1693.10    1696.00    1688.80    7800.00    1697.22       0.00    1697.36      17.32       3.77    2900.77    1874.00
      2.302       1.00       0.00       0.00    1688.80    7800.00    1697.22       0.00    1697.36       2.57       3.55    4041.08    4864.81
      2.310      50.00       0.00       0.00    1689.00    7800.00    1697.13       0.00    1697.49      12.14       5.20    2170.30    2238.86
      2.330     110.00       0.00       0.00    1689.00    7800.00    1697.35       0.00    1697.62       9.18       4.64    2379.31    2574.77
      2.540    1116.00       0.00       0.00    1690.00    7800.00    1698.29       0.00    1698.80      11.16       5.87    1672.25    2334.87
      2.780    1240.00       0.00       0.00    1690.90    7800.00    1699.37       0.00    1702.05      53.68      13.13     593.85    1064.56
      3.040    1380.00       0.00       0.00    1695.80    7800.00    1706.93       0.00    1707.50      28.27       6.05    1289.36    1467.03
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3.256	1144.00	0.00	0.00	1706.80	7800.00	1712.59	0.00	1714.48	186.84	9.78	797.81	570.64
3.262	30.00	0.00	0.00	1706.80	7800.00	1714.01	0.00	1714.91	90.75	7.61	1024.37	818.63
3.274	63.25	1714.00	1713.00	1708.00	7800.00	1715.02	0.00	1716.06	431.25	7.73	965.72	375.66
3.280	43.25	0.00	0.00	1708.00	7800.00	1716.15	0.00	1716.55	26.03	5.11	1592.21	1528.73
3.470	976.00	0.00	0.00	1709.80	7800.00	1717.80	0.00	1718.70	17.12	8.57	1273.34	1885.35
3.490	120.00	0.00	0.00	1709.80	7800.00	1718.27	0.00	1718.89	11.36	7.36	1554.19	2314.69

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	3.506	84.00	1718.00	1716.00	1712.20	7800.00	1716.38	0.00	1719.16	72.62	6.38	1125.24	915.32
	3.510	44.00	0.00	0.00	1712.00	7800.00	1716.88	0.00	1719.35	10.39	6.67	1676.33	2419.66
*	3.690	908.00	0.00	0.00	1715.20	7800.00	1720.53	1720.93	1722.33	41.55	9.58	866.65	1210.06
*	3.860	908.00	0.00	0.00	1719.20	7800.00	1725.73	1725.73	1727.65	47.33	11.13	708.64	1133.77
	4.040	960.00	0.00	0.00	1721.00	7800.00	1729.58	0.00	1731.42	18.30	7.37	1066.92	1823.39
	4.230	1020.00	0.00	0.00	1722.00	7800.00	1731.51	0.00	1732.30	18.38	7.12	1095.28	1819.26
	4.420	992.00	0.00	0.00	1724.20	7800.00	1733.91	0.00	1734.71	33.53	7.21	1081.71	1347.12

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LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.230	7800.00	1695.70	0.00	0.00	0.00	1175.47	0.00
2.270	7800.00	1695.44	0.00	-0.26	0.00	663.66	203.00
2.284	7800.00	1696.46	0.00	1.02	0.00	1468.07	100.00
2.285	7800.00	1696.35	0.00	-0.11	0.00	1457.43	1.00
2.301	7800.00	1697.22	0.00	0.86	0.00	1507.32	87.00
2.302	7800.00	1697.22	0.00	0.00	0.00	1507.51	1.00
2.310	7800.00	1697.13	0.00	-0.08	0.00	956.32	50.00
2.330	7800.00	1697.35	0.00	0.21	0.00	963.20	110.00
2.540	7800.00	1698.29	0.00	0.94	0.00	910.70	1116.00
2.780	7800.00	1699.37	0.00	1.08	0.00	78.87	1240.00
3.040	7800.00	1706.93	0.00	7.56	0.00	166.93	1380.00
3.256	7800.00	1712.99	0.00	6.06	0.00	213.17	1144.00

	3.262	7800.00	1714.01	0.00	1.02	0.00	231.69	30.00
	3.274	7800.00	1715.02	0.00	1.01	0.00	324.78	63.25
	3.280	7800.00	1716.15	0.00	1.13	0.00	345.48	43.25
	3.470	7800.00	1717.80	0.00	1.64	0.00	597.58	976.00
	3.490	7800.00	1718.27	0.00	0.47	0.00	605.39	120.00
	3.506	7800.00	1718.38	0.00	0.12	0.00	524.61	84.00
	3.510	7800.00	1718.88	0.00	0.50	0.00	540.51	44.00
*	3.690	7800.00	1720.93	0.00	2.05	0.00	355.26	908.00
*	3.860	7800.00	1725.73	0.00	4.80	0.00	201.95	908.00
	4.040	7800.00	1729.58	0.00	3.86	0.00	226.06	960.00
	4.230	7800.00	1731.51	0.00	1.93	0.00	226.14	1020.00
	4.420	7800.00	1733.91	0.00	2.39	0.00	143.61	992.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=    3.690  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.690  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.690  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.860  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.860  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
 ERROR CORR -  01,02,03,04,05
 MODIFICATION -  50,51,52,53,54,55
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EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   5-MAY-88 TIME   12:56:25          *
 *************************************************
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 50-YEAR (d/s Reach)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.000000      0.00      0.5       0.  1697.100     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.030     0.100     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      1.000 14000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     3.100   900.000  3092.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above Advance Wastewater Treatment Plant)
                Centerline Station at 2506
X1      2.230    38.000  2456.000  2740.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1716.000   900.000  1712.000  1110.000  1708.000  1250.000  1704.000  1450.000  1700.000  1605.000
GR   1696.300  1885.000  1692.000  1910.000  1692.000  1935.000  1693.700  2000.000  1694.400  2187.000
GR   1694.500  2353.000  1694.200  2420.000  1692.900  2429.000  1696.000  2456.000  1692.600  2482.000
GR   1692.500  2494.000  1688.200  2506.000  1689.300  2552.000  1689.800  2560.000  1689.700  2606.000
GR   1689.700  2628.000  1690.300  2646.000  1692.100  2660.000  1691.200  2689.000  1691.500  2701.000
GR   1694.100  2740.000  1692.300  3010.000  1690.200  3022.000  1692.700  3056.000  1702.300  3092.000
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GR	1700.300	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.300	4060.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
NC	0.330	0.060	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	1.000	2930.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2219								
X1	2.270	38.000	2155.000	2345.000	220.000	150.000	203.000	0.000	0.000	0.000
GR	1716.300	1.000	1712.000	35.000	1708.000	225.000	1704.000	880.000	1700.000	1085.000
GR	1700.300	1200.000	1696.000	1350.000	1696.000	1500.000	1695.500	2000.000	1695.500	2032.000
GR	1694.500	2093.000	1693.900	2120.000	1696.300	2142.000	1695.300	2155.000	1693.400	2165.000
GR	1689.700	2175.000	1689.700	2210.000	1688.500	2219.000	1689.900	2252.000	1690.100	2277.000
GR	1693.100	2297.000	1693.100	2337.000	1693.500	2345.000	1694.100	2385.000	1694.700	2405.000
GR	1694.300	2550.000	1696.500	2600.000	1693.000	2760.000	1704.000	2930.000	1700.000	2945.000
GR	1696.000	2955.000	1696.000	3670.000	1700.000	3680.000	1700.000	5025.000	1704.000	7140.000
GR	1708.000	7380.000	1708.000	7590.000	1710.000	9105.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	1.000	3032.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2323								
X1	2.284	25.000	2250.000	2395.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.300	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.300	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.300	5070.000	1704.000	7185.000	1708.000	7470.000	1709.000	7690.000	1710.000	9230.000
		Centerline Station at 2323								
X1	2.285	63.000	2248.000	2397.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.300	2000.000	1695.000	1695.000	2248.000	1695.000	1695.000	2249.900	1696.300	1686.800
BT	2396.100	1696.300	1686.800	2397.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2248.000	1692.300	2249.800
GR	1686.300	2249.900	1686.800	2263.800	1692.300	2263.900	1692.300	2264.500	1686.800	2264.600
GR	1686.300	2278.500	1692.300	2278.600	1692.300	2279.200	1686.800	2279.300	1686.800	2293.200
GR	1692.300	2293.300	1692.300	2293.900	1686.800	2294.000	1686.800	2307.900	1692.300	2308.000
GR	1692.300	2308.600	1686.800	2308.700	1686.800	2322.600	1692.300	2322.700	1692.300	2323.300
GR	1686.300	2323.400	1686.800	2337.300	1692.300	2337.400	1692.300	2338.000	1686.800	2338.100
GR	1686.300	2352.000	1692.300	2352.100	1692.300	2352.700	1686.800	2352.800	1686.800	2366.700
GR	1692.300	2366.800	1692.300	2367.400	1686.800	2367.500	1686.800	2381.400	1692.300	2381.500
GR	1692.300	2382.100	1686.800	2382.200	1686.800	2396.100	1692.300	2396.200	1695.000	2397.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

**** Vegas Valley Drive (NB) ****
2' Debris Loacing
Centerline Station at 2323

X1	2.301	63.000	2250.000	2395.000	87.000	87.000	87.000	0.000	0.000	0.000
X2	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2250.000	1695.000	1695.000	2251.900	1696.300	1686.800
BT	2394.100	1693.100	1686.800	2395.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.300	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1692.300	2251.800
GR	1686.300	2251.900	1686.800	2261.800	1692.300	2261.900	1692.300	2266.500	1686.800	2266.600
GR	1686.300	2276.500	1692.300	2276.600	1692.300	2281.200	1686.800	2281.300	1686.800	2291.200
GR	1692.300	2291.300	1692.300	2295.900	1686.800	2296.000	1686.800	2305.900	1692.300	2306.000
GR	1692.300	2310.600	1686.800	2310.700	1686.800	2320.600	1692.300	2320.700	1692.300	2325.300
GR	1686.300	2325.400	1686.800	2335.300	1692.300	2335.400	1692.300	2340.000	1686.800	2340.100
GR	1686.300	2350.000	1692.300	2350.100	1692.300	2354.700	1686.800	2354.800	1686.800	2364.700
GR	1692.300	2364.800	1692.300	2369.400	1686.800	2369.500	1686.800	2379.400	1692.300	2379.500
GR	1692.300	2384.100	1686.800	2384.200	1686.800	2394.100	1692.300	2394.200	1695.000	2395.000

GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1709.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

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ET	0.000	3.100	100.000	3032.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2323								
X1	2.302	25.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1709.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.300	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000
ET	0.000	3.100	1930.000	2995.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2240								
X1	2.310	44.000	2181.000	2420.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	1716.000	250.000	1712.000	270.000	1708.000	430.000	1704.000	790.000	1700.000	1000.000
GR	1696.000	1410.000	1696.000	1505.000	1700.000	1515.000	1700.000	1620.000	1704.000	1670.000
GR	1704.000	1930.000	1700.000	1940.000	1696.700	2000.000	1696.700	2032.000	1694.900	2102.000
GR	1694.900	2164.000	1696.600	2172.000	1698.000	2181.000	1694.200	2198.000	1690.100	2208.000
GR	1690.100	2223.000	1689.000	2229.000	1689.000	2251.000	1690.800	2279.000	1693.700	2300.000
GR	1691.100	2364.000	1693.100	2388.000	1694.200	2420.000	1695.400	2443.000	1695.400	2564.000
GR	1696.500	2600.000	1696.000	2760.000	1696.000	2955.000	1700.000	2965.000	1704.000	2995.000
GR	1700.000	3005.000	1696.000	3180.000	1696.000	3585.000	1700.000	3595.000	1700.000	4990.000
GR	1704.000	6950.000	1708.000	7350.000	1708.000	7580.000	1710.000	9120.000	0.000	0.000
NC	0.045	0.035	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	1.000	14000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	1930.000	2995.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2240								
X1	2.330	0.000	0.000	0.000	125.000	95.000	110.000	0.000	0.000	0.000
NC	0.360	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	705.000	3045.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2872								
X1	2.540	36.000	2727.000	2917.000	1200.000	900.000	1116.000	0.000	0.000	0.000
GR	1712.000	705.000	1708.000	706.000	1704.000	785.000	1700.000	1045.000	1700.000	1815.000
GR	1700.000	1815.000	1698.000	2100.000	1697.800	2578.000	1697.700	2690.000	1698.200	2703.000
GR	1695.200	2710.000	1695.200	2727.000	1691.000	2744.000	1691.800	2793.000	1691.400	2843.000
GR	1690.000	2872.000	1691.000	2896.000	1695.300	2917.000	1701.400	3025.000	1702.400	3045.000
GR	1701.300	3121.000	1701.800	3181.000	1700.600	3239.000	1700.600	3326.000	1699.100	3365.000
GR	1697.700	3430.000	1696.900	3499.000	1696.800	3561.000	1696.800	3577.000	1701.000	3670.000
GR	1700.000	3720.000	1700.000	5070.000	1704.000	7190.000	1708.000	7640.000	1708.000	7875.000
GR	1710.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 3462								
X1	2.780	34.000	3417.000	3503.000	950.000	900.000	1240.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	3417.000	1705.200	3671.000	1703.500	0.000	0.000	0.000
GR	1712.000	0.000	1708.000	305.000	1704.000	885.000	1704.000	2120.000	1704.000	2260.000
GR	1704.000	2450.000	1704.000	3380.000	1705.200	3417.000	1705.200	3417.000	1705.200	3417.000
GR	1705.200	3417.000	1693.600	3427.000	1691.900	3431.000	1691.300	3434.000	1691.300	3449.000
GR	1690.900	3451.000	1690.900	3473.000	1691.600	3496.000	1702.700	3503.000	1703.500	3671.000
GR	1702.600	3704.000	1701.900	3718.000	1701.900	3726.000	1701.900	3742.000	1703.000	3748.000
GR	1702.800	3778.000	1702.500	4003.000	1701.500	4234.000	1702.500	4359.000	1703.500	4460.000
GR	1702.500	5070.000	1704.000	5640.000	1708.000	7010.000	1710.000	7630.000	0.000	0.000

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NH	5.000	0.045	9918.000	0.050	10138.000	0.045	10362.000	0.130	12103.000	0.040
NH	13578.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	3.340	36.000	9918.000	10138.000	600.000	1450.000	1380.000	0.000	0.000	0.000

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X3          0.000       0.000       0.000    9798.000    1714.100   10309.000    1712.000       0.000       0.000       0.000
GR       1716.000    5153.000    1712.000    5553.000    1708.000    6393.000    1704.000    7208.000    1704.000    7323.000
GR       1704.000    7453.000    1708.000    7573.000    1708.000    9473.000    1712.000    9713.000    1714.100    9798.000
GR       1713.500    9885.000    1709.300    9918.000    1708.300    9954.000    1704.600    9969.000    1697.000    9987.000
GR       1697.000    9993.000    1697.000   10012.000    1699.100   10033.000    1695.800   10057.000    1696.000   10067.000
GR       1698.500   10069.000    1698.000   10076.000    1696.800   10079.000    1696.800   10093.000    1702.800   10108.000
GR       1709.500   10138.000    1709.700   10173.000    1708.400   10188.000    1708.400   10253.000    1708.400   10268.000
GR       1712.000   10309.000    1711.900   10335.000    1711.100   10362.000    1709.300   10860.000    1712.000   12103.000
GR       1715.000   13578.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

NC          0.045       0.045       0.050       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET          0.000       3.100    9824.000   10273.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1          3.256      32.000    9863.000   10103.000     800.000    1250.000    1144.000       0.000       0.000       0.000
GR       1728.000    3820.000    1724.000    4305.000    1720.000    4475.000    1716.000    5215.000    1712.000    5340.000
GR       1708.000    6620.000    1708.000    6775.000    1708.000    6920.000    1708.000    8135.000    1712.000    9410.000
GR       1713.300    9673.000    1712.400    9783.000    1714.900    9824.000    1714.300    9863.000    1710.100    9907.000
GR       1707.700    9983.000    1706.800    9995.000    1706.800   10013.000    1708.400   10027.000    1709.900   10066.000
GR       1714.700   10103.000    1716.100   10159.000    1716.800   10273.000    1716.000   10326.000    1712.000   10545.000
GR       1708.000   10575.000    1708.000   10655.000    1712.000   10695.000    1716.000   11745.000    1720.000   13155.000
GR       1724.000   13440.000    1728.000   14900.000       0.000       0.000       0.000       0.000       0.000       0.000

ET          0.000       3.100    9824.000   10273.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1          3.262       0.000       0.000       0.000      30.000      30.000      30.000       0.000       0.000       0.000

NC          0.000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.000
ET          0.000       7.100       0.000       0.000       0.000       0.000    9824.000   10273.000       0.000       0.000
                **** Winterwood Golf Course Bridge #1 **
                2* Debris Loacing
                Single cross section normal bridge
                Centerline Station at 10000
X1          3.274      53.000    9900.000   10100.000      58.250      68.250      63.250       0.000       0.000       0.000
X2          0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000      15.000
BT          2.000    9903.000    1714.000    1713.000   10100.000    1714.000    1713.000       0.000       0.000       0.000
GR       1728.000    3820.000    1724.000    4305.000    1720.000    4475.000    1716.000    5215.000    1712.000    5340.000
GR       1708.000    6620.000    1708.000    6775.000    1708.000    6920.000    1708.000    8135.000    1712.000    9410.000
GR       1713.300    9673.000    1712.400    9783.000    1714.900    9824.000    1714.300    9863.000    1712.000    9880.000
GR       1714.300    9900.000    1710.000    9923.100    1713.000    9923.200    1713.000    9928.100    1710.000    9928.200
GR       1709.000    9949.000    1713.000    9949.100    1713.000    9954.000    1709.000    9954.100    1708.000    9975.000
GR       1713.300    9975.100    1713.000    9980.000    1708.000    9980.100    1708.000   10020.000    1713.000   10020.100
GR       1713.000   10025.000    1708.000   10025.100    1709.000   10046.000    1713.000   10046.100    1713.000   10051.000
GR       1709.000   10051.100    1710.000   10072.000    1713.000   10072.100    1713.000   10077.000    1710.000   10077.100
GR       1714.000   10100.000    1712.000   10120.000    1716.100   10159.000    1716.800   10273.000    1716.000   10326.000
GR       1712.000   10545.000    1708.000   10575.000    1708.000   10655.000    1712.000   10695.000    1716.000   11745.000
GR       1720.000   13155.000    1724.000   13440.000    1728.000   14900.000       0.000       0.000       0.000       0.000
1
     5-MAY-88     12:56:26                                                                                    PAGE     5

ET          0.000       7.100       0.000       0.000       0.000       0.000    9824.000   10273.000       0.000       0.000
                Centerline Station at 10000
X1          3.280      32.000    9863.000   10103.000      43.250      53.250      43.250       0.000       0.000       0.000
GR       1728.000    3820.000    1724.000    4305.000    1720.000    4475.000    1716.000    5215.000    1712.000    5340.000
GR       1708.000    6620.000    1708.000    6775.000    1708.000    6920.000    1708.000    8135.000    1712.000    9410.000
GR       1713.300    9673.000    1712.400    9783.000    1714.900    9824.000    1714.300    9863.000    1710.100    9907.000
GR       1708.000    9983.000    1708.000    9995.000    1708.000   10013.000    1708.400   10027.000    1709.900   10066.000
GR       1714.700   10103.000    1716.100   10159.000    1716.800   10273.000    1716.000   10326.000    1712.000   10545.000
GR       1708.000   10575.000    1708.000   10655.000    1712.000   10695.000    1716.000   11745.000    1720.000   13155.000
GR       1724.000   13440.000    1728.000   14900.000       0.000       0.000       0.000       0.000       0.000       0.000

NC          0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
NH          6.000       0.045    9552.000       0.028    9942.000       0.023   10056.000       0.028   10168.000       0.130
NH      13430.000       0.040   15535.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET          0.000       7.100       0.000       0.000       0.000       0.000    9552.000   10218.000       0.000       0.000
                Centerline Station at 10000
X1          3.470      31.000    9542.000   10056.000     620.000    1000.000     976.000       0.000       0.000       0.000
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GR    1732.000    3280.000    1728.000    3300.000    1724.000    3320.000    1724.000    4225.000    1724.000    4570.000
GR    1720.000    4740.000    1716.000    5010.000    1712.000    6840.000    1712.000    6970.000    1716.000    9480.000
GR    1717.500    9552.000    1717.400    9650.000    1717.200    9717.000    1716.800    9830.000    1715.100    9886.000
GR    1716.700    9914.000    1716.500    9542.000    1709.800   10000.000    1710.700   10017.000    1711.600   10056.000
GR    1713.400   10076.000    1718.900   10168.000    1720.100   10218.000    1716.700   10299.000    1717.000   10655.000
GR    1720.100   10955.000    1720.000   11970.000    1724.000   12885.000    1728.000   13430.000    1728.000   14405.000
GR    1732.000   15535.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

ET       0.000       7.100       0.000       0.000       0.000       0.000    9552.000   10218.000       0.000       0.000
                Centerline Station at 10000
X1       3.490       0.000       0.000       0.000     120.000     120.000     120.000       0.000       0.000       0.000

NC       0.100       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.000
NH       6.000       0.045    9552.000       0.028    9952.000       0.023   10048.000       0.028   10168.000       0.130
NH   13430.000       0.040   15535.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET       0.100       7.100       0.000       0.000       0.000       0.000    9610.000   10218.000       0.000       0.000
                **** Winterwood Golf Course Bridge #2**
                2* Debris Loading
                Single cross section normal bridge
                Centerline Station at 10000
X1       3.506      40.000    9952.000   10048.000      84.000      84.000      84.000       0.000       0.000       0.000
X2       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000      15.000
BT       2.000    9952.000    1718.000    1716.000   10048.000    1718.000    1716.000       0.000       0.000       0.000
GR    1732.000    3280.000    1728.000    3300.000    1724.000    3320.000    1724.000    4225.000    1724.000    4570.000
GR    1720.000    4740.000    1716.000    5010.000    1712.000    6840.000    1712.000    6970.000    1716.000    9480.000
GR    1717.500    9552.000    1720.000    9610.000    1717.400    9650.000    1717.200    9717.000    1716.800    9830.000
GR    1715.100    9886.000    1716.700    9914.000    1716.500    9942.000    1712.000   10000.000    1712.000   10017.000
GR    1712.000   10056.000    1713.400   10076.000    1718.900   10168.000    1720.100   10218.000    1716.700   10299.000
GR    1717.300   10655.000    1720.000   10955.000    1720.000   11970.000    1724.000   12885.000    1728.000   13430.000
GR    1728.000   14405.000    1732.000   15535.000       0.000       0.000       0.000       0.000       0.000       0.000

NC       0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
NH       5.000       0.045    9645.000       0.028    9897.000       0.023   10222.000       0.110   12895.000       0.045
NH   14765.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1       3.690      33.000    9897.000   10222.000     950.000     850.000     908.000       0.000       0.000       0.000
X3       0.000       0.000       0.000    9681.000    1731.100   10222.000    1723.800       0.000       0.000       0.000
GR    1732.000    3795.000    1728.000    3880.000    1724.000    3970.000    1724.000    4515.000    1720.000    5705.000
GR    1716.000    6669.000    1716.000    6785.000    1720.000    7375.000    1720.000    8060.000    1721.700    8100.000
GR    1720.000    8140.000    1720.000    9320.000    1724.000    9535.000    1728.600    9645.000    1731.100    9681.000
GR    1721.400    9747.000    1720.700    9780.000    1720.100    9861.000    1720.300    9897.000    1715.400    9930.000
GR    1716.300    9971.000    1715.200    9994.000    1715.200   10005.000    1715.400   10025.000    1715.400   10035.000
GR    1719.000   10059.000    1723.600   10222.000    1720.400   10355.000    1724.000   10545.000    1724.000   12895.000
GR    1728.000   13735.000    1728.000   14075.000    1732.000   14765.000       0.000       0.000       0.000       0.000

NH       7.000       0.045    6875.000       0.130    9105.000       0.028    9921.000       0.023   10111.000       0.028
NH   10364.000       0.110   12500.000       0.045   14640.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       3.100    9828.000   10137.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1       3.360      50.000    9921.000   10111.000     950.000     880.000     908.000       0.000       0.000       0.000
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NH   6.000   0.045   9552.000   0.028   9942.000   0.023   10056.000   0.028   10168.000   0.130
NH   13430.000   0.040   15535.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
ET   0.000   7.100   0.000   0.000   0.000   0.000   9610.000   10218.000   0.000   0.000
                Centerline Station at 10000
X1   3.510   32.000   9942.000   10056.000   44.000   44.000   44.000   0.000   0.000   0.000
GR   1732.000   3280.000   1728.000   3300.000   1724.000   3320.000   1724.000   4225.000   1724.000   4570.000
GR   1720.000   4740.000   1716.000   5010.000   1712.000   6840.000   1712.000   6970.000   1716.000   9480.000
GR   1717.500   9552.000   1720.000   9610.000   1717.400   9650.000   1717.200   9717.000   1716.800   9830.000
GR   1715.100   9886.000   1716.700   9914.000   1716.500   9942.000   1712.000   10000.000   1712.000   10017.000
GR   1712.000   10056.000   1713.400   10076.000   1718.900   10168.000   1720.100   10218.000   1716.700   10299.000
GR   1717.300   10655.000   1720.000   10955.000   1720.000   11970.000   1724.000   12885.000   1728.000   13430.000
GR   1728.000   14405.000   1732.000   15535.000   0.000   0.000   0.000   0.000   0.000   0.000

NC   0.000   0.000   0.000   0.100   0.300   0.000   0.000   0.000   0.000   0.000
NH   5.000   0.045   9645.000   0.028   9897.000   0.023   10222.000   0.110   12895.000   0.045
NH   14765.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
                Centerline Station at 10000
X1   3.690   33.000   9897.000   10222.000   950.000   850.000   908.000   0.000   0.000   0.000
X3   0.000   0.000   0.000   9681.000   1731.100   10222.000   1723.800   0.000   0.000   0.000
GR   1732.000   3795.000   1728.000   3880.000   1724.000   3970.000   1724.000   4515.000   1720.000   5705.000
GR   1716.000   6669.000   1716.000   6785.000   1720.000   7375.000   1720.000   8060.000   1721.700   8100.000
GR   1720.000   8140.000   1720.000   9320.000   1724.000   9535.000   1728.600   9645.000   1731.100   9681.000
GR   1721.400   9747.000   1720.700   9780.000   1720.100   9861.000   1720.300   9897.000   1715.400   9930.000
GR   1716.300   9971.000   1715.200   9994.000   1715.200   10005.000   1715.400   10025.000   1715.400   10035.000
GR   1719.000   10059.000   1723.600   10222.000   1720.400   10355.000   1724.000   10545.000   1724.000   12895.000
GR   1728.000   13735.000   1728.000   14075.000   1732.000   14765.000   0.000   0.000   0.000   0.000

NH   7.000   0.045   6875.000   0.130   9105.000   0.028   9921.000   0.023   10111.000   0.028
NH   10364.000   0.110   12500.000   0.045   14640.000   0.000   0.000   0.000   0.000   0.000
ET   0.000   3.100   9828.000   10137.000   0.000   0.000   0.000   0.000   0.000   0.000
                Centerline Station at 10000
X1   3.360   50.000   9921.000   10111.000   950.000   880.000   908.000   0.000   0.000   0.000

GR	1741.000	3430.000	1725.000	3685.000	1732.000	4030.000	1725.000	4505.000	1724.000	5940.000
GR	1724.300	6075.000	1724.000	6875.000	1724.000	8840.000	1727.900	9105.000	1727.900	9177.000
GR	1724.700	9184.000	1724.700	9203.000	1725.900	9230.000	1728.800	9255.000	1728.000	9326.000
GR	1724.300	9410.000	1727.400	9426.000	1725.000	9448.000	1723.800	9544.000	1723.800	9613.000
GR	1724.300	9619.000	1724.900	9624.000	1724.200	9629.000	1723.200	9637.000	1723.200	9653.000
GR	1725.100	9656.000	1725.300	9725.000	1726.000	9762.000	1726.300	9828.000	1726.300	9875.000
GR	1725.000	9921.000	1721.300	9941.000	1720.300	9994.000	1719.200	9997.000	1719.200	10002.000
GR	1720.700	10004.000	1720.700	10038.000	1723.900	10078.000	1727.200	10111.000	1729.300	10137.000
GR	1728.100	10165.000	1726.900	10221.000	1726.200	10283.000	1726.700	10364.000	1724.000	10960.000
GR	1724.300	11920.000	1728.000	12500.000	1728.000	13260.000	1729.800	13510.000	1732.000	14640.000
NH	7.300	0.050	5160.000	0.130	9619.000	0.030	9913.000	0.028	10100.000	0.030
NH	10271.000	0.130	12400.000	0.045	14210.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	9771.000	10271.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.140	38.000	9913.000	10100.000	1000.000	900.000	960.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1736.000	3440.000	1732.000	4945.000	1732.000	5160.000	1732.000	8340.000	1728.000	8740.000
GR	1732.000	9485.000	1732.000	9585.000	1729.800	9619.000	1729.900	9650.000	1732.400	9672.000
GR	1732.400	9771.000	1729.900	9794.000	1729.900	9827.000	1729.200	9913.000	1722.000	9949.000
GR	1721.700	9994.000	1721.000	9997.000	1721.000	10003.000	1722.500	10005.000	1722.100	10047.000

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GR	1727.400	10078.000	1730.900	10100.000	1731.800	10113.000	1732.000	10136.000	1731.500	10172.000
GR	1730.100	10196.000	1730.500	10232.000	1731.200	10271.000	1731.200	10317.000	1726.600	10333.000
GR	1726.600	10399.000	1731.500	10413.000	1731.500	10442.000	1728.000	10890.000	1728.000	12400.000
GR	1732.000	13450.000	1732.000	13980.000	1736.000	14210.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	4310.000	0.130	7565.000	0.040	8365.000	0.130	8720.000	0.030
NH	9900.000	0.028	10100.000	0.030	10247.000	0.130	12915.000	0.100	14920.000	0.000
ET	0.000	3.100	8720.000	10350.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.230	36.000	9900.000	10247.000	1100.000	950.000	1020.000	0.000	0.000	0.000
GR	1740.000	3570.000	1736.000	3850.000	1736.000	4310.000	1736.000	6095.000	1732.000	7375.000
GR	1732.000	7565.000	1736.000	8140.000	1736.000	8365.000	1736.000	8720.000	1733.000	9738.000
GR	1732.400	9900.000	1723.600	9945.000	1723.100	9987.000	1723.000	9996.000	1723.000	10003.000
GR	1723.500	10003.000	1724.800	10040.000	1727.300	10053.000	1729.700	10080.000	1730.800	10095.000
GR	1732.500	10180.000	1733.600	10247.000	1734.500	10350.000	1729.500	10363.000	1730.100	10427.000
GR	1733.300	10440.000	1733.700	10515.000	1731.000	10528.000	1731.200	10616.000	1730.200	10628.000
GR	1731.500	10655.000	1733.900	10661.000	1732.000	10860.000	1732.000	12915.000	1736.000	13980.000
GR	1738.000	14920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.050	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9731.000	1739.700	10236.000	1738.000	0.000	0.000	0.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9794.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.800	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10095.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.500
*SECNO 2.230

3470 ENCROACHMENT STATIONS= 900.0 3092.0 TYPE= 1 TARGET= 2192.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2506

2.23	8.90	1697.10	0.00	0.00	1697.28	0.18	0.00	0.00	1696.00
14000.	5444.	7068.	1487.	1822.	1760.	1365.	0.	0.	1694.00
0.00	2.99	4.02	1.09	0.030	0.035	0.100	0.000	1688.20	1208.00
0.000791	0.	0.	0.	0	0	0	0.00	1264.50	3072.50

*SECNO 2.270

3470 ENCROACHMENT STATIONS= 1.0 2930.0 TYPE= 1 TARGET= 2929.000
Centerline Station at 2219

2.27	8.58	1697.08	0.00	0.00	1697.63	0.55	0.24	0.11	1695.30
14000.	3379.	8457.	2164.	1169.	1150.	1098.	19.	6.	1693.50
0.01	2.89	7.35	1.97	0.030	0.030	0.060	0.000	1688.50	1309.29
0.002015	220.	203.	150.	3	0	0	0.00	1513.85	2823.14

CCHV= 0.300 CEHV= 0.500
*SECNO 2.284

3470 ENCROACHMENT STATIONS= 1.0 3032.0 TYPE= 1 TARGET= 3031.000
Centerline Station at 2323

2.28	10.61	1697.41	0.00	0.00	1697.79	0.38	0.11	0.05	1695.00
14000.	3605.	9139.	1256.	1682.	1526.	1124.	27.	10.	1695.00
0.02	2.14	5.99	1.12	0.030	0.030	0.060	0.000	1686.80	1407.72
0.000715	100.	100.	100.	3	0	0	0.00	1516.44	2924.15

*SECNO 2.285

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 3.0 3032.0 TYPE= 1 TARGET= 3031.999
Centerline Station at 2323

2.29	10.58	1697.38	0.00	0.00	1697.82	0.44	0.00	0.03	1695.00
14000.	9901.	644.	3456.	1656.	163.	1107.	28.	10.	1695.00
0.02	5.98	3.94	3.12	0.030	0.030	0.060	0.000	1686.80	1408.48
0.005654	1.	1.	1.	2	0	0	-1360.67	1515.25	2923.74

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1697.38

STA=	1438.	1450.	2000.	2243.	2397.	2655.	2692.	2852.	2924.
PER Q=	0.6	42.1	28.1	4.6	9.9	0.6	10.7	3.5	
AREA=	28.7	1036.2	591.2	163.3	486.0	42.0	421.4	157.2	
VEL=	2.9	5.7	6.5	3.9	2.8	2.0	3.6	3.1	

*SECNO 2.301

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 3.0 3032.0 TYPE= 1 TARGET= 3031.999
**** Vegas Valley Drive (NB) ****
2* Debris Loading
Centerline Station at 2323

```
     2.30      11.12   1697.92      0.00      0.00   1698.15      0.24      0.28      0.06   1695.00
    14000.      3781.     2240.     2979.     2116.      466.     1396.       34.       13.    1695.00
      0.02       4.15      4.81      2.13     0.030     0.030     0.060     0.000   1686.80   1392.40
 0.002020         87.       87.       87.         3         0         0   -895.71   1540.11   2932.51
)
 FLOW DISTRIBUTION FOR SECNO=      2.30          CWSEL=   1697.92

 STA=    1392.     1450.     2000.     2250.     2395.     2655.     2692.     2852.     2933.
   PER Q=     0.9      38.2      23.7      16.0       9.0       0.7       8.7       2.9
    AREA=    55.3    1331.0     730.3     465.7     629.2      61.8     507.2     198.0
     VEL=     2.2       4.0       4.5       4.8       2.0       1.6       2.4       2.0

 *SECNO 2.302

 3470 ENCROACHMENT STATIONS=     100.0    3032.0  TYPE=     1  TARGET=    2932.000
                Centerline Station at 2323
     2.30      11.11   1697.91      0.00      0.00   1698.17      0.26      0.00      0.01   1695.00
    14000.      4331.     8200.     1469.     2116.     1600.     1396.       35.       13.    1695.00
      0.02       2.05      5.12      1.35     0.030     0.030     0.060     0.000   1686.80   1392.40
 0.000491         1.        1.        1.         3         0         0      0.00   1540.12   2932.51
)
 *SECNO 2.310

 3265 DIVIDED FLOW

1
   5-MAY-88     12:56:26                                                                    PAGE   10

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROP      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 3470 ENCROACHMENT STATIONS=    1933.0    2995.0  TYPE=     1  TARGET=    1065.000
                Centerline Station at 2240
     2.31       8.72   1697.72      0.00      0.00   1698.46      0.74      0.05      0.24   1698.00
    14000.      1503.    10673.     1824.      371.     1378.      587.       39.       14.    1694.20
      0.02       4.05      7.74      1.35     0.030     0.030     0.060     0.000   1689.00   1981.43
 0.002369         50.       50.       50.         3         0         0      0.00    974.84   2959.30
)
 CCHV=   0.100  CEHV=   0.300
 *SECNO 2.330

 3470 ENCROACHMENT STATIONS=    1930.0    2995.0  TYPE=     1  TARGET=    1065.000
                Centerline Station at 2240
     2.33       9.24   1698.24      0.00      0.00   1698.68      0.44      0.19      0.03   1698.00
    14000.      1100.     9331.     3569.      477.     1502.     1268.       46.       17.    1694.20
      0.03       2.30      6.21      2.32     0.045     0.030     0.035     0.000   1689.00   1971.97
 0.001368         125.      110.       95.         3         0         0      0.00    988.63   2560.60
)
 *SECNO 2.540

 3470 ENCROACHMENT STATIONS=     705.0    3045.0  TYPE=     1  TARGET=    2340.000
                Centerline Station at 2372
     2.54       9.58   1699.58      0.00      0.00   1700.39      0.80      1.59      0.11   1695.20
    14000.      1828.    11855.      316.     1307.     1522.      163.      124.       43.    1695.30
      0.08       1.40      7.79      1.35     0.060     0.030     0.050     0.000   1690.00   1873.95
 0.001555        1200.     1116.      900.         2         0         0      0.00   1118.94   2992.89
)
 *SECNO 2.780

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
```

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 3417.0 3671.0 TYPE= 1 TARGET= 254.000
ELENCL= 1705.20 ELENCR= 1703.50
Centerline Station at 3462

2.78	10.95	1701.85	1701.85	0.00	1706.68	4.83	3.53	1.21	1705.20
14000.	0.	14000.	0.	0.	794.	0.	173.	57.	1702.70
0.09	0.00	17.63	0.00	0.060	0.030	0.050	0.000	1690.90	3419.89
0.007205	950.	1240.	900.	20	8	0	0.00	82.57	3502.46

)
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 3.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9793.0 10309.0 TYPE= 1 TARGET= 511.000
ELENCL= 1714.10 ELENCR= 1712.00
Centerline Station at 10000

3.04	15.51	1711.31	0.00	0.00	1711.83	0.52	4.73	0.43	1709.30
14000.	23.	12976.	1000.	16.	2167.	374.	227.	65.	1709.50
0.16	1.47	5.99	2.67	0.045	0.050	0.045	0.000	1695.80	9902.22
0.001989	600.	1380.	1450.	3	0	0	0.00	398.89	10301.12

)
*SECNO 3.256

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
Centerline Station at 10000

3.26	8.41	1715.21	0.00	0.00	1716.96	1.75	4.76	0.37	1714.30
14000.	65.	13928.	8.	24.	1309.	5.	278.	74.	1714.70
0.19	2.73	10.64	1.53	0.045	0.050	0.045	0.000	1706.80	9824.00
0.013408	800.	1144.	1250.	4	0	0	0.00	299.29	10123.29

)
*SECNO 3.262

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
Centerline Station at 10000

3.26	9.26	1716.06	0.00	0.00	1717.31	1.25	0.31	0.05	1714.30
14000.	213.	13702.	85.	57.	1514.	37.	279.	74.	1714.70
0.19	3.73	9.05	2.28	0.045	0.050	0.045	0.000	1706.80	9824.00
0.007982	30.	30.	30.	4	0	0	0.00	333.54	10157.54

)
CCHV= 0.300 CEHV= 0.500
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
 *SECNO 3.274

 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

 3470 ENCROACHMENT STATIONS=    9824.0    10273.0  TYPE=      1  TARGET=      449.000
                 **** Winterwood Golf Course Bridge #1**
                 2* Debris Loading
                 Single cross section normal bridge
                 Centerline Station at 10000
      3.27      8.97   1716.97      0.00      0.00   1713.15      1.18      0.81      0.02   1714.00
     14000.     2549.     8941.     2410.      237.     1182.      253.      281.       75.    1714.00
       0.19     11.19      7.57      9.54     0.045     0.050     0.045     0.000   1708.00    9824.00
  0.024259       58.       63.       68.         3         0         0   -194.25    449.00   10273.00
3
 FLOW DISTRIBUTION FOR SECNO=      3.27          CWSEL=   1716.97

 STA=    9824.     9863.     9880.     9901.    10100.    10120.    10159.    10273.
   PER Q=      5.8       5.8       7.3      63.9       7.3       8.5       1.4
    AREA=     92.4      64.9      79.4    1191.8      79.4     113.9      59.3
     VEL=      8.8      12.5      12.9       7.6      12.9      10.5       3.3

 *SECNO 3.280

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS=    9824.0    10273.0  TYPE=      1  TARGET=      449.000
                 Centerline Station at 10000
      3.28     10.00   1718.00      0.00      0.00   1718.61      0.61      0.29      0.17   1714.30
     14000.      515.    12564.      921.      133.     1928.      322.      284.       75.    1714.70
       0.20      3.88      6.52      2.85     0.045     0.050     0.045     0.000   1708.00    9824.00
  0.002996       43.       43.       53.         3         0         0      0.00    449.00   10273.00
3
 CCHV=   0.100 CEHV=   0.300
 1490 NH CARD USED
 *SECNO 3.470

 3470 ENCROACHMENT STATIONS=    9552.0    10218.0  TYPE=      1  TARGET=      666.000
                 Centerline Station at 10000
      3.47      9.80   1719.60      0.00      0.00   1720.40      0.81      1.73      0.06   1716.50
     14000.     3944.     7683.     2373.     1049.      862.      469.      332.       86.    1711.60
       0.23      3.76      8.91      5.06     0.028     0.023     0.028     0.000   1709.80    9552.00
  0.001288       620.      976.     1000.         2         0         0      0.00    644.97   10196.97
3
1
   5-MAY-88     12:56:26                                                                    PAGE    13

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *SECNO 3.490

 3470 ENCROACHMENT STATIONS=    9552.0    10218.0  TYPE=      1  TARGET=      666.000
                 Centerline Station at 10000
      3.49     10.07   1719.87      0.00      0.00   1720.55      0.69      0.14      0.01   1716.50
     14000.     4196.     7415.     2389.     1155.      893.      509.      339.       88.    1711.60
       0.24      3.63      8.30      4.70     0.028     0.023     0.028     0.000   1709.80    9552.00
  0.001067       120.      120.      120.         3         0         0      0.00    656.29   10208.29
3
 CCHV=   0.300 CEHV=   0.500
 1490 NH CARD USED
 *SECNO 3.506
```

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 608.000
**** Winterwood Golf Course Bridge #2**
2* Debris Loading
Single cross section normal bridge
Centerline Station at 10000

3.51	7.78	1719.98	0.00	0.00	1720.75	0.77	0.15	0.04	1718.00
14000.	7107.	3013.	3881.	1007.	512.	496.	343.	89.	1718.00
0.24	7.05	5.88	7.32	0.028	0.023	0.028	0.000	1712.20	9610.31
0.003953	84.	84.	84.	4	0	0	-191.93	602.68	10212.99

FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1719.98

STA=	9610.	9717.	9830.	9886.	9914.	9952.	10048.	10076.	10168.	10213.
PER Q=	9.6	16.4	13.4	6.9	4.5	21.5	7.4	20.3	0.1	
AREA=	230.7	336.7	225.7	114.2	99.9	512.2	119.8	352.3	24.3	
VEL=	5.8	6.8	8.3	8.4	6.3	5.9	8.6	8.1	0.5	

1490 NH CARD USED
*SECNO 3.510

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 608.000
Centerline Station at 10000

3.51	8.18	1720.18	0.00	0.00	1720.87	0.68	0.09	0.03	1716.50
14000.	4499.	6677.	2824.	1068.	802.	554.	346.	89.	1712.00
0.24	4.21	8.33	5.10	0.028	0.023	0.028	0.000	1712.00	9610.00
0.001235	44.	44.	44.	3	0	0	0.00	608.00	10218.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
Centerline Station at 10000

3.69	7.22	1722.42	1722.42	0.00	1724.03	1.61	1.86	0.28	1720.30
14000.	1525.	12475.	0.	292.	1173.	0.	387.	100.	1723.80
0.27	5.22	10.63	0.00	0.028	0.023	0.109	0.000	1715.20	9740.97
0.003988	950.	908.	850.	20	12	0	0.00	435.03	10175.10

1490 NH CARD USED
*SECNO 3.860

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9828.0 10137.0 TYPE= 1 TARGET= 309.000
Centerline Station at 10000

3.86	8.57	1727.77	1727.77	0.00	1729.99	2.22	3.45	0.18	1725.00
14000.	799.	13207.	3.	167.	1077.	2.	415.	108.	1727.20
0.29	4.75	12.27	1.37	0.028	0.023	0.028	0.000	1719.20	9828.00
0.003602	950.	908.	880.	20	9	0	0.00	290.04	10118.04

1490 NH CARD USED
*SECNO 4.040

3265 DIVIDED FLOW

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9771.0 10271.0 TYPE= 1 TARGET= 500.000
Centerline Station at 10000

4.04	10.44	1731.44	0.00	0.00	1732.72	1.28	2.63	0.05	1729.20
14000.	747.	13084.	169.	224.	1400.	82.	448.	116.	1730.90
0.32	3.33	9.34	2.17	0.030	0.028	0.030	0.000	1721.00	9779.82
0.002146	1000.	960.	900.	3	0	0	0.00	425.99	10271.00

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1731.44

STA=	9780.	9913.	10100.	10271.
PER Q=	5.3	93.5	1.2	
AREA=	224.4	1400.3	81.7	
VEL=	3.3	9.3	2.1	

1490 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8720.0 10350.0 TYPE= 1 TARGET= 1630.000
Centerline Station at 10000

4.23	10.79	1733.79	0.00	0.00	1734.67	0.88	1.92	0.04	1732.40
14000.	497.	13503.	0.	285.	1758.	2.	492.	131.	1733.60
0.36	1.74	7.68	0.10	0.030	0.030	0.130	0.000	1723.00	9467.63
0.001649	1100.	1020.	950.	2	0	0	0.00	801.88	10269.52

1490 NH CARD USED
*SECNO 4.420

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.00
Centerline Station at 10000

4.42	11.88	1736.08	0.00	0.00	1737.60	1.52	2.73	0.19	1737.00
14000.	0.	14000.	0.	0.	1415.	0.	531.	142.	1737.60
0.39	0.00	9.90	0.10	0.030	0.045	0.130	0.000	1724.20	9936.62
0.005512	992.	992.	992.	2	0	0	0.00	169.63	10106.24

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 50-YR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2.230	0.00	0.00	0.00	1688.20	14000.00	1697.10	0.00	1697.28	7.91	4.02	4946.34	4977.81
	2.270	203.00	0.00	0.00	1688.50	14000.00	1697.08	0.00	1697.63	20.15	7.35	3417.07	3118.60
	2.284	100.00	0.00	0.00	1686.80	14000.00	1697.41	0.00	1697.79	7.15	5.99	4332.33	5236.92
	2.285	1.00	1695.00	1695.00	1686.80	14000.00	1697.38	0.00	1697.82	56.54	3.94	2926.07	1861.81
	2.311	87.00	1693.10	1695.00	1686.80	14000.00	1697.92	0.00	1698.16	20.20	4.81	3978.27	3114.98
	2.312	1.00	0.00	0.00	1686.80	14000.00	1697.91	0.00	1698.17	4.91	5.12	5112.89	6316.22
	2.310	50.00	0.00	0.00	1689.00	14000.00	1697.72	0.00	1698.46	23.69	7.74	2736.42	2876.48
	2.330	110.00	0.00	0.00	1689.00	14000.00	1698.24	0.00	1698.68	13.68	6.21	3247.43	3785.55
	2.540	1116.00	0.00	0.00	1690.00	14000.00	1699.58	0.00	1700.39	15.55	7.79	2991.30	3550.51
*	2.780	1240.00	0.00	0.00	1690.90	14000.00	1701.85	1701.85	1706.68	72.05	17.63	793.98	1649.29
	3.040	1380.00	0.00	0.00	1695.80	14000.00	1711.31	0.00	1711.93	19.89	5.99	2557.07	3138.76
	3.256	1144.00	0.00	0.00	1706.80	14000.00	1715.21	0.00	1716.96	134.08	10.64	1337.58	1209.03
	3.252	30.00	0.00	0.00	1706.80	14000.00	1716.86	0.00	1717.31	79.82	9.05	1608.49	1567.05
	3.274	63.25	1714.00	1713.00	1708.00	14000.00	1716.97	0.00	1718.15	242.59	7.57	1671.22	858.86
	3.280	43.25	0.00	0.00	1708.00	14000.00	1718.00	0.00	1718.61	29.96	6.52	2382.98	2557.91
	3.470	976.00	0.00	0.00	1709.80	14000.00	1719.60	0.00	1720.40	12.88	8.91	2379.78	3901.02
	3.490	120.00	0.00	0.00	1709.80	14000.00	1719.87	0.00	1720.55	10.67	8.30	2556.58	4286.72

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3.506	84.00	1719.00	1715.00	1712.20	14000.00	1719.98	0.00	1720.75	38.53	5.88	2015.96	2255.51
	3.510	44.00	0.00	0.00	1712.00	14000.00	1720.18	0.00	1720.87	12.35	8.33	2424.19	3984.23
*	3.690	908.00	0.00	0.00	1715.20	14000.00	1722.42	1722.42	1724.03	39.88	10.63	1465.30	2216.92
*	3.860	908.00	0.00	0.00	1719.20	14000.00	1727.77	1727.77	1729.99	36.02	12.27	1245.14	2332.82
	4.040	960.00	0.00	0.00	1721.00	14000.00	1731.44	0.00	1732.72	21.46	9.34	1706.43	3022.34

4.230	1020.00	0.00	0.00	1723.00	14000.00	1733.79	0.00	1734.67	16.49	7.68	2045.84	3447.93
4.420	992.00	0.00	0.00	1724.20	14000.00	1736.08	0.00	1737.60	55.12	9.90	1414.58	1885.72

1

LAS VEGAS WASH - 50-YE

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2.230	14000.00	1697.10	0.00	0.00	0.00	1264.50	0.00
	2.270	14000.00	1697.09	0.00	-0.02	0.00	1513.85	203.00
	2.284	14000.00	1697.41	0.00	0.33	0.00	1516.44	100.00
	2.285	14000.00	1697.38	0.00	-0.03	0.00	1515.25	1.00
	2.301	14000.00	1697.92	0.00	0.54	0.00	1540.11	87.00
	2.302	14000.00	1697.91	0.00	-0.01	0.00	1540.12	1.00
	2.310	14000.00	1697.72	0.00	-0.20	0.00	974.84	50.00
	2.330	14000.00	1698.24	0.00	0.53	0.00	988.63	110.00
	2.540	14000.00	1699.58	0.00	1.34	0.00	1118.94	1116.00
*	2.780	14000.00	1701.85	0.00	2.27	0.00	82.57	1240.00
	3.040	14000.00	1711.31	0.00	9.46	0.00	398.89	1380.00
	3.256	14000.00	1715.21	0.00	3.90	0.00	299.29	1144.00
	3.252	14000.00	1716.06	0.00	0.86	0.00	333.54	30.00
	3.274	14000.00	1716.97	0.00	0.91	0.00	449.00	63.25
	3.280	14000.00	1718.00	0.00	1.03	0.00	449.00	43.25
	3.470	14000.00	1719.60	0.00	1.59	0.00	644.97	976.00
	3.490	14000.00	1719.87	0.00	0.27	0.00	656.29	120.00
	3.506	14000.00	1719.98	0.00	0.11	0.00	602.68	84.00
	3.510	14000.00	1720.18	0.00	0.20	0.00	608.00	44.00
*	3.690	14000.00	1722.42	0.00	2.24	0.00	435.03	908.00
*	3.860	14000.00	1727.77	0.00	5.35	0.00	290.04	908.00
	4.040	14000.00	1731.44	0.00	3.67	0.00	425.99	960.00
	4.230	14000.00	1733.79	0.00	2.35	0.00	801.89	1020.00
	4.420	14000.00	1736.08	0.00	2.29	0.00	169.63	992.00

1

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=     2.780  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     2.780  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     2.780  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     3.690  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     3.690  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     3.690  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     3.860  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     3.860  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     3.860  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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     48
   4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   4.42        Centerline Station at 10000
  4.437        Centerline Station at 10000
  4.438        Centerline Station at 10000
  4.456        ****  Nellis Boulevard  ****
  4.456              1* Debris Loading
  4.456                Normal Bridge
  4.456        Centerline Station at 10000
  4.457        Centerline Station at 10000
   4.47        Centerline Station at 10000
   4.57        Centerline Station at 10000
   4.68        Centerline Station at 10000
  4.695        Centerline Station at 10000
  4.696        Centerline Station at 10000
  4.714        ****  Charlester Boulevard  ****
  4.714              2* Debris Loading
  4.714                Normal Bridge
  4.714        Centerline Station at 10000
  4.715        Centerline Station at 10000
   4.72        Centerline Station at 10000
   4.75        Centerline Station at 10000
   4.94        Centerline Station at 10000
   5.18        Centerline Station at 10000
  5.205        Centerline Station at 10000
  5.206        Centerline Station at 10000
  5.224        ****  Stewart Avenue  ****
  5.224              2* Debris Loading
  5.224                Normal Bridge
  5.224        Centerline Station at 10000
  5.225        Centerline Station at 10000
   5.24        Centerline Station at 10000
   5.46        Centerline Station at 10000
   5.75        Centerline Station at 10000
   5.78        Centerline Station at 10000
  5.794        Centerline Station at 10000
  5.795        Centerline Station at 10000
  5.813        ****  Bonanza Avenue  ****
  5.813              2* Debris Loading
  5.813                Normal Bridge
  5.813        Centerline Station at 10000
  5.814        Centerline Station at 10000
   5.82        Centerline Station at 10000
   5.96        Centerline Station at 10000
   6.16        Centerline Station at 10000
   6.35        Centerline Station at 10000
   6.40        Centerline Station at 10000
   6.57        Centerline Station at 10000
   6.71        Centerline Station at 15000
T1             CCRFCD/COE OVERFLOW STUDY
T2             JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3             LAS VEGAS WASH - 500-YEAR (Middle Reach)                          10/87      SRM
J1                    3                                          0.5          1739.8
J2       -1                 -1
J3      150
NC   0.050     0.027    0.0450       0.1       0.3
QT         2   24000     84000
NH         5   0.045      3880     0.130      8050     0.050      9935     0.045     10132     0.100
NH     15890
KI      4.42        27      9935     10132       992       992       992
GR1748.0        2045    1744.0      2335    1740.0      3060    1740.0      3515    1736.0      3675
GR1736.0        3880    1736.0      6450    1736.5      8050    1739.7      9731    1735.7      9794
GR1737.4        9813    1737.0      9935    1724.9      9956    1724.8     10000    1724.2     10052
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GR1732.3   10072  1735.4  10095  1737.6  10132  1737.6  10179  1736.0  10236
GR1736.0   10750  1735.6  11580  1736.0  12365  1740.0  13440  1744.0  14870
GR1744.0   15500  1748.0  15990
NC                   0.3     0.5
NH      5  0.045     3896  0.130     8066  0.050     9933  0.045    10067  0.100
NH  15905
X1  4.437       24     9933    10067       90       90       90
GR1748.0     2061  1744.0     2351  1740.0     3076  1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466  1736.5     8066  1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953  1724.0    10047  1736.0    10067  1737.6    10147
GR1737.6    10194  1738.0    10251  1736.0    10765  1735.6    11595  1736.0    12380
GR1740.0    13455  1744.0    14885  1744.0    15515  1748.0    15905
X1  4.438       38     9933    10067        1        1        1
BT      7    9747  1739.7  1739.7     9827  1737.5  1735.5     9933  1737.5  1736.0
BT  10067  1737.5  1736.0    10147  1737.5  1737.6    10194  1737.6  1737.6    10251
BT1738.0   1738.0
GR1748.0     2061  1744.0     2351  1740.0     3076  1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466  1736.5     8066  1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9954  1736.0   9954.1  1736.0     9956  1724.0   9956.1
GR1724.0     9984  1736.0   9984.1  1736.0     9986  1724.0   9986.1  1724.0    10014
GR1736.0  10314.1  1736.0    10016  1724.0  10016.1  1724.0    10044  1736.0  10044.1
GR1736.0    10046  1724.0  10046.1  1736.0    10067  1737.6    10147  1737.6    10194
GR1738.0    10251  1736.0    10765  1735.6    11595  1736.0    12380  1740.0    13455
GR1744.0    14885  1744.0    15515  1748.0    15905
X1  4.456       38     9933    10067       98       98       98
BT      7    9747  1739.7  1739.7     9827  1737.5  1735.5     9933  1737.5  1736.0
BT  10067  1737.5  1736.0    10147  1737.5  1737.6    10194  1737.6  1737.6    10251
BT1738.0   1738.0
GR1748.0     2061  1744.0     2351  1740.0     3076  1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466  1736.5     8066  1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953  1736.0   9953.1  1736.0     9957  1724.0   9957.1
GR1724.0     9983  1736.0   9983.1  1736.0     9987  1724.0   9987.1  1724.0    10013
GR1736.0  10313.1  1736.0    10017  1724.0  10017.1  1724.0    10043  1736.0  10043.1
GR1736.0    10047  1724.0  10047.1  1736.0    10067  1737.6    10147  1737.6    10194
GR1738.0    10251  1736.0    10765  1735.6    11595  1736.0    12380  1740.0    13455
GR1744.0    14885  1744.0    15515  1748.0    15905
X1  4.457       24     9933    10067        1        1        1
X2                                                                          15
GR1748.0     2061  1744.0     2351  1740.0     3076  1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466  1736.5     8066  1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953  1724.0    10047  1736.0    10067  1737.6    10147
GR1737.6    10194  1738.0    10251  1736.0    10765  1735.6    11595  1736.0    12380
GR1740.0    13455  1744.0    14885  1744.0    15515  1748.0    15905
QT      2   24000   84000
NH      6  0.045     3730  0.130     8295  0.050     9966  0.045    10097  0.050
NH  11360  0.100    15640
K1  4.47        41     9919    10050       60       60       60
GR1752.0     1595  1748.0     2035  1744.0     2425  1740.0     2805  1740.0     2915
GR1740.0     3730  1736.0     3745  1736.0     3840  1740.0     4015  1740.0     5405
GR1736.0     6015  1736.0     6200  1737.2     8295  1739.2     9740  1738.8     9851
GR1737.3     9875  1739.1     9903  1736.9     9919  1725.6     9942  1725.6     9963
GR1727.1     9978  1724.8     9989  1724.8    10010  1728.9    10012  1728.1    10025
GR1733.8    10029  1737.5    10040  1738.8    10050  1738.8    10072  1737.1    10078
GR1737.7    10230  1737.1    10310  1738.4    10373  1739.4    10392  1737.3    10397
GR1738.4    10434  1736.0    11360  1740.0    12920  1744.0    13910  1748.0    14620
GR1752.0    15640
NC                   0.1     0.3
NH      6  0.045     3365  0.130     8820  0.050     9470  0.065     9914  0.055
NH  10061  0.070    10493  0.100    15515
K1  4.57        43     9914    10061      350      800      562
GR1756.0     1380  1752.0     1575  1748.0     2055  1744.0     2675  1740.0     2690
GR1740.0     2770  1744.0     2780  1744.0     3365  1740.0     4025  1740.0     5560
GR1738.0     5140  1740.0     6990  1740.0     8820  1740.0     9470  1740.5     9751
GR1738.8     9862  1737.3     9886  1739.1     9914  1736.9     9930  1725.6     9953
GR1725.6     9974  1727.1     9989  1725.0    10000  1725.8    10021  1728.9    10023
GR1728.1    10036  1733.8    10040  1737.5    10051  1738.8    10061  1738.8    10083
GR1737.1    10089  1737.7    10241  1737.1    10321  1738.4    10384  1739.4    10403
GR1737.3    10408  1738.4    10445  1740.5    10493  1740.0    11925  1744.0    13145
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GR1748.0   14000   1752.0   14575   1756.0   15515
NH      5   0.130     1580   0.045     3635   0.130     9935   0.050    10050   0.100
NH 16450
K1  4.68       26     9935   10065      350      550      540
GR1760.0     1210   1756.0     1580   1752.0     1775   1748.0     2215   1744.0     2755
GR1744.0     2865   1744.0     3635   1740.0     4355   1740.0     9320   1740.0     9935
GR1725.6     9942   1725.6     9963   1727.1     9978   1725.2     9989   1725.2    10010
GR1728.9    10012   1728.1    10025   1733.8    10029   1737.5    10040   1738.8    10050
GR1740.0    10065   1744.0    13035   1748.0    13975   1752.0    14925   1756.0    15500
GR1760.0    16450
NC                          0.3     0.5
NH      5   0.130     1659   0.045     3714   0.130     9913   0.050    10087   0.100
NH 16494
K1 4.695       21     9913   10087      100      100      100
GR1760.0     1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0     2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3     9913   1733.0   9913.2   1725.6   9927.9   1725.6  10072.2   1733.0  10086.8
GR1740.5    10087   1744.0    13079   1748.0    14019   1752.0    14959   1756.0    15544
GR1760.0    16494
K1 4.696       35     9913   10087        1        1        1
BT      6     9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT9913.2  1740.5   1733.0  10086.8   1740.5   1733.0    10087   1740.5   1740.5
GR1760.0     1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0     2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3     9913   1733.0   9913.2   1725.6   9927.9   1733.0     9930   1733.0   9931.5
GR1725.6   9931.6   1725.6   9976.2   1733.0   9976.3   1733.0   9977.7   1725.6   9977.8
GR1725.6  10022.4   1733.0  10022.5   1733.0  10023.9   1725.6    10024   1725.6  10068.6
GR1733.0  10068.7   1733.0  10070.1   1725.6  10070.2   1733.0  10086.8   1740.0    10087
GR1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544   1760.0    16494
X1 4.714       35     9913   10087       98       98       98
BT      6     9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT9913.2  1740.5   1733.0  10086.8   1740.5   1733.0    10087   1740.5   1740.5
GR1760.0     1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0     2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3     9913   1733.0   9913.2   1725.6   9927.9   1733.0     9928   1733.0   9933.5
GR1725.6   9933.6   1725.6   9974.2   1733.0   9974.2   1733.0   9979.7   1725.6   9979.8
GR1725.6  10020.4   1733.0  10020.5   1733.0  10025.9   1725.6    10026   1725.6  10066.6
GR1733.0  10066.7   1733.0  10072.1   1725.6  10072.2   1733.0  10086.8   1740.0    10087
GR1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544   1760.0    16494
X1 4.715       21     9913   10087        1        1        1
GR1760.0     1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0     2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3     9913   1733.0   9913.2   1725.6   9927.9   1725.6  10072.2   1733.0  10086.8
GR1740.5    10087   1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544
GR1760.0    16494
NH      8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
X1  4.72       33     9954   10096       50       50       50
GR1760.0     1420   1756.0     1810   1752.0     1995   1748.0     2455   1744.0     2935
GR1744.0     3050   1744.0     3880   1740.0     4875   1740.0     6390   1744.0     7295
GR1744.0     8875   1742.3     9833   1741.9     9954   1729.6     9976   1729.2     9988
GR1728.3     9995   1728.3    10004   1728.9    10012   1729.6    10028   1729.9    10055
GR1732.6    10062   1733.0    10079   1734.7    10082   1743.5    10096   1743.9    10137
GR1744.0    10240   1744.0    11760   1742.9    12510   1744.0    13400   1748.0    14690
GR1752.0    15375   1756.0    15925   1760.0    16450
NC                          0.1     0.3
NH      8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
X1  4.75                      150      150      150
NH      8   0.130     3095   0.045     3280   0.100     7641   0.045     9897   0.035
NH 10059   0.130    13550   0.040    15455   0.130    17025
X1  4.94       32     9897   10059      750      965      965
GR1760.0     1720   1756.0     1875   1756.0     2530   1752.0     2690   1748.0     3095
GR1744.0     3196   1744.0     3280   1744.0     7641   1746.6     9781   1746.3     9889
GR1745.6     9897   1745.6     9912   1730.5     9944   1730.6     9963   1730.6     9982
GR1730.1    10000   1731.9    10014   1734.3    10035   1747.9    10059   1748.7    10097
GR1748.7    10142   1748.0    10160   1744.0    10195   1744.0    11245   1748.0    11520
GR1744.0    13550   1748.0    14300   1752.0    15140   1752.0    15755   1756.0    15865
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GR1756.0   16455   1760.0   17025
NH     6   0.130     5425   0.045     9330   0.065     9905   0.035    10040   0.130
NH 17355   0.040    18900
X1  5.18      27     9905   10040     1100     1277     1277
GR1768.0    2100   1764.0    2520   1760.0    2820   1756.0    3255   1752.0    3575
GR1752.0    4030   1748.0    4165   1748.0    5425   1748.0    9330   1753.5    9803
GR1750.8    9826   1750.9    9875   1750.5    9905   1732.1    9937   1732.3    9978
GR1733.7    9988   1732.3    9997   1732.3   10002   1735.9   10017   1737.3   10029
GR1750.8   10040   1753.7   10071   1752.0   10200   1752.0   14875   1756.0   15780
GR1760.0   17355   1770.0   18900
NC                   0.3      0.5
NH     9   0.040     2545   0.130     3465   0.040     3675   0.130     5910   0.045
NH  9160   0.045     9915   0.035    10085   0.130    17630   0.040    18935
X1 5.205      22     9915   10085      150      150      150
GR1772.0    1950   1768.0    2215   1764.0    2545   1760.0    2950   1756.0    3285
GR1752.0    3465   1752.0    3570   1752.0    3675   1748.0    4320   1748.0    5910
GR1748.0    9160   1749.5    9705   1750.2    9915   1732.9    9948   1732.9   10052
GR1749.9   10085   1750.7   10225   1752.0   10275   1752.0   14055   1756.0   15285
GR1760.0   17630   1770.0   18935
X1 5.206      36     9915   10085        1        1        1
3T     4    9705   1749.5   1749.5    9915   1750.2   1748.6   10085   1749.9   1748.6
3T 10225   1750.7   1750.7
GR1772.0    1950   1768.0    2215   1764.0    2545   1760.0    2950   1756.0    3285
GR1752.0    3465   1752.0    3570   1752.0    3675   1748.0    4320   1748.0    5910
GR1748.0    9160   1749.5    9705   1748.6    9915   1732.9    9950   1748.6   9950.1
GR1748.6   9951.5   1732.9   9951.6   1732.9   9982.8   1748.6   9982.9   1748.6   9984.3
GR1732.9   9984.4   1732.9  10015.5   1748.6  10015.7   1748.6  10017.1   1732.9  10017.2
GR1732.9  10048.4   1748.6  10048.5   1748.6  10049.9   1732.9    10050   1748.6    10085
GR1750.7   10225   1752.0   10275   1752.0   14055   1756.0   15285   1760.0   17630
GR1770.0   18935
X1 5.224      36     9915   10085       98       98       98
3T     4    9705   1749.5   1749.5    9915   1750.2   1748.6   10085   1749.9   1748.6
3T 10225   1750.7   1750.7
GR1772.0    1950   1768.0    2215   1764.0    2545   1760.0    2950   1756.0    3285
GR1752.0    3465   1752.0    3570   1752.0    3675   1748.0    4320   1748.0    5910
GR1748.0    9160   1749.5    9705   1748.6    9915   1733.1    9948   1748.6   9948.1
GR1748.6   9953.5   1733.1   9953.6   1733.1   9980.8   1748.6   9980.9   1748.6   9986.3
GR1733.1   9986.4   1733.1  10013.6   1748.6  10013.7   1748.6  10019.1   1733.1  10019.2
GR1733.1  10046.4   1748.6  10046.4   1748.6  10051.9   1733.1    10052   1748.6    10085
GR1750.7   10225   1752.0   10275   1752.0   14055   1756.0   15285   1760.0   17630
GR1770.0   18935
X1 5.225      22     9915   10085        1        1        1
GR1772.0    1950   1768.0    2215   1764.0    2545   1760.0    2950   1756.0    3285
GR1752.0    3465   1752.0    3570   1752.0    3675   1748.0    4320   1748.0    5910
GR1748.0    9160   1749.5    9705   1750.2    9915   1733.1    9948   1733.1   10052
GR1749.9   10085   1750.7   10225   1752.0   10275   1752.0   14055   1756.0   15285
GR1760.0   17630   1770.0   18935
NH    10   0.040     2530   0.100     3430   0.040     3725   0.130     6415   0.045
NH  9310   0.045     9905   0.035    10040   0.030    10470   0.150    17670   0.040
NH 18830
X1  5.24      30     9905   10040       60       60       60
GR1772.0    2005   1768.0    2380   1764.0    2530   1760.0    2985   1756.0    3280
GR1752.0    3430   1752.0    3530   1752.0    3725   1748.0    5155   1748.0    6415
GR1748.0    7065   1752.0    9310   1754.5    9803   1751.8    9826   1751.9    9875
GR1751.5    9905   1733.1    9937   1733.3    9978   1734.7    9988   1733.3    9997
GR1733.3   10032   1736.9   10017   1738.3   10029   1751.8   10040   1754.7   10071
GR1752.0   10470   1752.0   13925   1756.0   15240   1760.0   17670   1770.0   18830
NC                   0.1      0.3
NH     5   0.045     3110   0.130     8140   0.040     9916   0.035    10051   0.130
NH 18390
X1  5.46      36     9916   10051     1198     1198     1198
GR1776.0    2110   1772.0    2325   1768.0    2540   1764.0    2980   1760.0    3040
GR1760.0    3110   1760.0    3235   1756.0    3885   1756.0    5415   1752.0    6005
GR1752.0    6970   1756.0    8140   1756.0    9205   1757.8    9459   1756.6    9628
GR1755.6    9684   1757.1    9788   1756.2    9916   1741.7    9949   1741.5    9975
GR1741.4    9995   1741.4   10005   1743.4   10023   1748.9   10034   1748.9   10046
GR1758.0   10051   1759.7   10088   1758.8   10131   1757.5   10151   1758.6   10156
GR1758.9   10191   1756.0   11870   1756.0   13430   1760.0   14710   1760.0   16520
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GR1770.0	18390								
NC 0.025	0.025	0.025							
NH 9	0.045	2785	0.120	4110	0.045	8635	0.080	9540	0.040
NH 9930	0.025	10071	0.130	10430	0.040	10990	0.120	17865	
X1 5.75	31	9930	10071	1532	1532	1532			
GR1772.0	2445	1768.0	2785	1764.0	4110	1760.0	5145	1760.0	8635
GR1764.0	9540	1764.8	9605	1763.8	9717	1762.6	9821	1762.8	9910
GR1758.6	9930	1744.8	9959	1744.8	9972	1744.8	10028	1744.8	10039
GR1745.0	10041	1763.8	10071	1765.2	10102	1765.3	10169	1765.4	10247
GR1765.8	10344	1763.6	10368	1764.8	10376	1763.8	10430	1764.0	10465
GR1764.0	10815	1760.5	10990	1760.0	14820	1764.0	15135	1764.0	16295
GR1770.0	17865								
X1 5.78				150	150	150			
NC			0.3	0.5					
NH 7	0.100	3790	0.040	8475	0.100	9725	0.040	9911	0.025
NH 10091	0.040	10915	0.130	17605					
X1 5.794	22	9911	10091	50	150	70			
GR1776.0	1580	1772.0	2120	1772.0	2420	1768.0	2780	1768.0	3790
GR1764.0	4155	1760.0	5315	1760.0	6875	1762.2	8475	1764.0	9725
GR1764.4	9911	1762.5	9912.4	1745.7	9945.6	1745.7	10054.5	1762.5	10087.6
GR1763.5	10091	1764.2	10256	1764.0	10305	1764.0	10915	1764.0	16130
GR1768.0	16295	1770.0	17605						
X1 5.795	36	9911	10091	1	1	1			
BT 7	9725	1764.0	1764.0	9911	1764.4	1764.4	9912.4	1766.0	1762.5
BT9993.5	1766.0	1762.5	10087.6	1766.0	1762.5	10091	1763.5	1763.5	10256
BT1764.2	1764.2								
GR1776.0	1580	1772.0	2120	1772.0	2420	1768.0	2780	1768.0	3790
GR1764.0	4155	1760.0	5315	1760.0	6875	1762.2	8475	1764.0	9725
GR1764.4	9911	1762.5	9912.4	1745.7	9947.6	1762.5	9947.7	1762.5	9948.9
GR1745.7	9949.0	1745.7	9982.1	1762.5	9982.2	1762.5	9983.4	1745.7	9983.5
GR1745.7	10016.6	1762.5	10016.7	1752.5	10017.9	1745.7	10018.0	1745.7	10051.1
GR1762.5	10051.2	1762.5	10052.4	1745.7	10052.5	1762.5	10087.6	1763.5	10091
GR1764.2	10256	1764.0	10305	1764.0	10915	1764.0	16130	1768.0	16295
GR1770.0	17605								
X1 5.813	36	9911	10091	98	98	98			
BT 7	9725	1764.0	1764.0	9911	1764.4	1764.4	9912.4	1766.0	1762.5
BT9985.5	1766.0	1762.5	10087.6	1766.0	1762.5	10091	1763.5	1763.5	10256
BT1764.2	1764.2								
GR1776.0	1580	1772.0	2120	1772.0	2420	1768.0	2780	1768.0	3790
GR1764.0	4155	1760.0	5315	1760.0	6875	1762.2	8475	1764.0	9725
GR1764.4	9911	1762.5	9912.4	1745.9	9945.6	1762.5	9945.7	1762.5	9950.9
GR1745.9	9951.0	1745.9	9980.1	1762.5	9980.2	1762.5	9985.4	1745.9	9985.5
GR1745.9	10014.6	1762.5	10014.7	1752.5	10019.9	1745.9	10020.0	1745.9	10049.1
GR1762.5	10049.2	1762.5	10054.4	1745.9	10054.5	1762.5	10087.6	1763.5	10091
GR1764.2	10256	1764.0	10305	1764.0	10915	1764.0	16130	1768.0	16295
GR1770.0	17605								
X1 5.814	22	9911	10091	1	1	1			
GR1776.0	1580	1772.0	2120	1772.0	2420	1768.0	2780	1768.0	3790
GR1764.0	4155	1760.0	5315	1760.0	6875	1762.2	8475	1764.0	9725
GR1764.4	9911	1762.5	9912.4	1745.9	9945.6	1745.9	10054.5	1762.5	10087.6
GR1763.5	10091	1764.2	10256	1764.0	10305	1764.0	10915	1764.0	16130
GR1768.0	16295	1770.0	17605						
NH 7	0.130	3750	0.045	8360	0.100	9605	0.05	9913	0.032
NH 10069	0.040	10430	0.130	17560					
X1 5.82	30	9913	10069	30	30	30			
GR1776.0	1480	1772.0	2280	1768.0	2765	1768.0	3750	1764.0	4200
GR1764.0	4650	1760.0	5405	1760.0	6855	1763.2	8360	1764.0	9605
GR1762.5	9753	1761.2	9821	1763.8	9857	1761.4	9883	1760.3	9897
GR1760.7	9913	1749.4	9941	1750.0	9953	1749.4	9956	1745.9	9973
GR1745.9	10027	1760.1	10069	1759.3	10083	1760.2	10112	1761.4	10148
GR1760.3	10132	1764.0	10430	1764.0	15750	1768.0	16260	1770.0	17560
NC			0.1	0.3					
NH 7	0.130	5985	0.040	7995	0.100	9841	0.050	9913	0.032
NH 10069	0.050	15015	0.130	17710					
X1 5.96	26	9913	10069	750	650	730			
GR1776.0	1975	1772.0	2370	1768.0	3700	1764.0	5985	1764.0	7595
GR1764.0	9600	1764.5	9841	1754.5	9888	1761.8	9897	1759.7	9913
GR1751.8	9941	1752.0	9953	1752.0	9966	1749.4	9973	1749.4	10027

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GR1762.4   10359   1761.8   10383   1762.4   10112   1763.7   10148   1762.4   10182
GR1764.1   10289   1768.0   10455   1768.0   15015   1768.0   16445   1770.0   16960
GR1775.0   17710
NH     7    0.100     9698    0.040     9939    0.032    10054    0.040    13800    0.100
NH 14580    0.040    15590    0.130    17505
X1  6.16       48     9939    10054     1056     1056     1056
GR1780.0     1375   1776.0     2245   1772.0     3025   1768.0     9030   1768.1     9698
GR1768.1     9728   1764.7     9756   1765.1     9763   1769.1     9786   1766.9     9809
GR1765.9     9845   1766.7     9878   1761.5     9892   1767.3     9911   1763.0     9939
GR1755.1     9962   1751.8     9989   1751.8    10011   1760.7    10044   1764.9    10054
GR1764.9    10072   1765.8    10077   1765.7    10090   1764.9    10098   1765.7    10102
GR1767.6    10111   1766.9    10147   1766.3    10164   1766.6    10174   1766.5    10208
GR1766.5    10228   1766.5    10267   1764.9    10286   1764.7    10315   1765.3    10352
GR1767.6    10374   1768.3    10401   1766.5    10440   1767.7    10441   1768.0    10550
GR1768.0    11200   1772.0    11545   1772.0    13800   1772.0    14580   1772.0    15590
GR1772.0    16400   1776.0    17255   1780.0    17505
NH     8    0.090     7425    0.130     9575    0.040     9949    0.045    10057    0.040
NH 10339    0.100    12245    0.040    13590    0.130    17275
X1  6.35       28     9949    10057     1100      950     1004
GR1784.0     1180   1780.0     1770   1776.0     3005   1776.0     7425   1776.0     9020
GR1772.4     9676   1772.4     9743   1772.8     9870   1771.8     9949   1762.9     9968
GR1760.4     9981   1760.2     9992   1760.2    10008   1760.3    10019   1760.3    10027
GR1760.4    10032   1766.1    10045   1771.8    10057   1772.4    10084   1771.6    10099
GR1771.6    10125   1772.8    10172   1774.9    10339   1775.5    12245   1776.0    13590
GR1776.0    15335   1776.0    16795   1780.0    17275
NH     6    0.090     8115    0.130     9946    0.045    10057    0.100    11980    0.040
NH 16070    0.130    18375
X1  6.40       34     9946    10057      300      270      292
GR1784.0     1215   1780.0     2265   1776.0     6430   1776.0     8115   1776.0     9640
GR1775.6     9710   1773.9     9772   1773.9     9799   1773.6     9810   1775.1     9862
GR1775.0     9946   1767.1     9964   1767.1     9983   1766.4     9991   1766.4     9995
GR1766.4    10009   1770.2    10033   1773.3    10057   1773.0    10073   1772.7    10087
GR1774.0    10128   1772.6    10143   1772.6    10183   1772.6    10224   1766.6    10239
GR1766.6    10247   1774.1    10263   1776.2    10297   1776.0    10850   1776.0    11980
GR1776.0    13470   1778.9    16070   1780.0    17095   1784.0    18375
NH     7    0.090     8865    0.100     9932    0.045    10035    0.045    10610    0.100
NH 11340    0.045    15790    0.130    18305
X1  6.57       29     9932    10035      920      500      856
GR1788.0       35   1784.0     1250   1780.0     4925   1780.0     8865   1777.8     9808
GR1777.8     9928   1778.8     9954   1781.6     9932   1770.6     9945   1769.3     9972
GR1769.3     9982   1768.5     9991   1768.5    10009   1773.3    10020   1773.3    10032
GR1781.6    10035   1773.6    10061   1777.5    10085   1779.6    10129   1779.6    10224
GR1776.8    10433   1776.0    10475   1776.0    10610   1780.0    11340   1780.0    15790
GR1780.0    17135   1784.0    17805   1788.0    18025   1790.0    18305
NH     9    0.130     4690    0.100    13425    0.130    14809    0.030    14942    0.035
NH 15039    0.045    16195    0.100    16755    0.045    21140    0.130    22860
X1  6.71       42    14942    15039      650      450      780
GR1796.0     2680   1792.0     3960   1792.0     4690   1784.0     8200   1784.0    12020
GR1784.0    13425   1780.9    14065   1780.0    14680   1777.4    14819   1777.6    14835
GR1778.5    14910   1779.0    14914   1784.8    14942   1773.0    14956   1769.3    14987
GR1769.3    14997   1769.3    15012   1771.9    15025   1784.8    15039   1781.9    15040
GR1781.9    15071   1781.9    15110   1781.3    15136   1781.2    15150   1781.2    15167
GR1780.9    15195   1782.1    15222   1782.1    15298   1781.8    15387   1779.8    15404
GR1779.8    15461   1781.6    15472   1781.0    15531   1780.0    15640   1780.0    15710
GR1782.0    16195   1782.0    16755   1784.0    21140   1784.0    21860   1788.0    22235
GR1792.0    22575   1796.0    22860
EJ


ER
EOF..
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     48
   4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   4.42        Centerline Station at 10000
  4.437        Centerline Station at 10000
  4.438        Centerline Station at 10000
  4.456        ****  Nellis Boulevard  ****
  4.456              1* Debris Loading
  4.456                 Normal Bridge
  4.456        Centerline Station at 10000
  4.457        Centerline Station at 10000
   4.47        Centerline Station at 10000
   4.57        Centerline Station at 10000
   4.68        Centerline Station at 10000
  4.695        Centerline Station at 10000
  4.696        Centerline Station at 10000
  4.714        ****  Charleston Boulevard  ****
  4.714              2* Debris Loading
  4.714                 Normal Bridge
  4.714        Centerline Station at 10000
  4.715        Centerline Station at 10000
   4.72        Centerline Station at 10000
   4.75        Centerline Station at 10000
   4.94        Centerline Station at 10000
   5.18        Centerline Station at 10000
  5.205        Centerline Station at 10000
  5.206        Centerline Station at 10000
  5.224        ****  Stewart Avenue  ****
  5.224             2* Debris Loading
  5.224                Normal Bridge
  5.224        Centerline Station at 10000
  5.225        Centerline Station at 10000
   5.24        Centerline Station at 10000
   5.46        Centerline Station at 10000
   5.75        Centerline Station at 10000
   5.78        Centerline Station at 10000
  5.794        Centerline Station at 10000
  5.795        Centerline Station at 10000
  5.813        ****  Bonanza Avenue  ****
  5.813             2* Debris Loading
  5.813                Normal Bridge
  5.813        Centerline Station at 10000
  5.814        Centerline Station at 10000
   5.82        Centerline Station at 10000
   5.96        Centerline Station at 10000
   6.16        Centerline Station at 10000
   6.35        Centerline Station at 10000
   6.40        Centerline Station at 10000
   6.57        Centerline Station at 10000
   6.71        Centerline Station at 15000
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - 25-YEAR (Middle Reach)                    12/87     SRM
J1              2                                        0.5          1733.9
J2    -1             -1
J3   150
NC 0.050   3.027  0.0450     0.1      0.3
QT     1    7800
NH     5  0.045    3880   0.130     8050   0.050     9935   0.045    10132   0.100
NH 15890
K1  4.42      27     9935   10132      992      992      992
GR1748.0    2045  1744.0    2335  1740.0     3060  1740.0     3515  1736.0     3675
GR1736.0    3880  1736.0    6450  1736.5     8050  1739.7     9731  1739.7     9794
GR1737.4    9813  1737.0    9935  1724.9     9956  1724.8    10000  1724.2    10052
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GR1732.3   10072   1735.4   10095   1737.5   10132   1737.6   10179   1738.0   10236
GR1736.0   10750   1735.6   11580   1736.0   12365   1740.0   13440   1744.0   14870
GR1744.0   15500   1748.0   15890
NC                    0.3      0.5
NH       5   0.045     3896   0.130     8066   0.050     9933   0.045    10067   0.100
NH 15905
X1  4.437       24     9933    10067       90       90       90
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6    10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0    13455   1744.0    14885   1744.0    15515   1748.0    15905
X1  4.438       38     9933    10067        1        1        1
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT   10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9954   1736.0   9954.1   1736.0     9956   1724.0   9956.1
GR1724.0     9984   1736.0   9994.1   1736.0     9986   1724.0   9986.1   1724.0    10014
GR1736.0  10014.1   1736.0    10016   1724.0  10016.1   1724.0    10044   1736.0  10044.1
GR1736.0    10046   1724.0  10046.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0    14885   1744.0    15515   1748.0    15905
X1  4.456       38     9933    10067       98       98       98
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT   10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1736.0   9953.1   1736.0     9957   1724.0   9957.1
GR1724.0     9983   1736.0   9983.1   1736.0     9987   1724.0   9987.1   1724.0    10013
GR1736.0  10013.1   1736.0    10017   1724.0  10017.1   1724.0    10043   1736.0  10043.1
GR1736.0    10047   1724.0  10047.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0    14885   1744.0    15515   1748.0    15905
X1  4.457       24     9933    10067        1        1        1
X2                                                                                  15
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6    10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0    13455   1744.0    14885   1744.0    15515   1748.0    15905
BT       1     6800
NH       6   0.045     3730   0.130     8295   0.050     9966   0.045    10097   0.050
NH 11360   0.100    15640
X1   4.47       41     9919    10050       60       60       60
GR1752.0     1595   1748.0     2035   1744.0     2425   1740.0     2805   1740.0     2915
GR1740.0     3730   1736.0     3745   1736.0     3840   1740.0     4015   1740.0     5405
GR1736.0     6015   1736.0     6200   1737.2     8295   1739.2     9740   1738.8     9851
GR1737.3     9875   1739.1     9903   1736.9     9919   1725.6     9942   1725.6     9963
GR1727.1     9978   1724.8     9989   1724.8    10010   1728.9    10012   1728.1    10025
GR1733.8    10029   1737.5    10040   1738.8    10050   1738.8    10072   1737.1    10078
GR1737.7    10230   1737.1    10310   1738.4    10373   1739.4    10392   1737.3    10397
GR1738.4    10434   1736.0    11360   1740.0    12920   1744.0    13910   1748.0    14620
GR1752.0    15640
NC                    0.1      0.3
NH       6   0.045     3365   0.130     8820   0.050     9470   0.065     9914   0.055
NH   10061   0.070    10493   0.100    15515
X1    4.57       43     9914    10061      350      800      562
K3      10
GR1756.0     1380   1752.0     1575   1748.0     2055   1744.0     2675   1740.0     2690
GR1740.0     2770   1744.0     2780   1744.0     3365   1740.0     4025   1740.0     5560
GR1738.0     6140   1740.0     6990   1740.0     8820   1740.0     9470   1740.5     9751
GR1738.8     9862   1737.3     9886   1739.1     9914   1736.9     9938   1725.6     9953
GR1725.6     9974   1727.1     9989   1725.0    10000   1725.8    10021   1728.9    10023
GR1728.1    10036   1733.8    10040   1737.5    10051   1738.8    10061   1738.8    10083
GR1737.1    10089   1737.7    10241   1737.1    10321   1738.4    10384   1739.4    10403
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GR1737.5   10493   1736.4   10445   1740.5   10493   1740.0   11925   1744.0   13145
GR1748.0   14000   1752.0   14575   1756.0   15515
NH       5   0.130     1580   0.045     3635   0.130     9935   0.050    10050   0.100
NH 16450
X1  4.68        28     9935    10065      350      550      540
GR1760.0    1210   1756.0     1580   1752.0     1775   1748.0     2215   1744.0     2755
GR1740.0    2770   1740.0     2855   1744.0     2865   1744.0     3635   1740.0     4355
GR1740.0    9320   1740.0     9935   1725.6     9942   1725.6     9963   1727.1     9978
GR1725.2    9989   1725.2    10010   1728.9    10012   1728.1    10025   1733.8    10029
GR1737.5   10040   1738.8    10050   1740.0    10065   1744.0    13035   1748.0    13975
GR1752.0   14925   1756.0    15500   1760.0    16450
NC                    0.3              0.5
NH       5   0.130     1659   0.045     3714   0.130     9913   0.050    10087   0.100
NH 16494
X1  4.695       23     9913    10087      100      100      100
X3     10                                                 1735     1735
GR1760.0    1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1740.0    2849   1740.0     2934   1744.0     2944   1744.0     3714   1740.0     4434
GR1740.0    9399   1740.9     9661   1740.3     9913   1733.0   9913.2   1725.6   9927.9
GR1725.6  10372.2  1733.0   10096.8  1740.5    10087   1744.0    13079   1748.0    14019
GR1752.0   14969   1756.0    15544   1760.0    16494
X1  4.696       37     9913    10087        1        1        1
BT       6    9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT9913.2  1740.5   1733.0   10086.8   1740.5   1733.0    10087   1740.5   1740.5
GR1760.0    1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1740.0    2849   1740.0     2934   1744.0     2944   1744.0     3714   1740.0     4434
GR1740.0    9399   1740.9     9661   1740.3     9913   1733.0   9913.2   1725.6   9927.9
GR1733.0    9930   1733.0   9931.5   1725.6   9931.6   1725.6   9976.2   1733.0   9976.3
GR1733.0   9977.7   1725.6   9977.8   1725.6  10022.4   1733.0  10022.5   1733.0  10023.9
GR1725.6   10024   1725.6  10068.6   1733.0  10068.7   1733.0  10070.1   1725.6  10070.2
GR1733.0  10086.8   1740.0    10087   1744.0    13079   1748.0    14019   1752.0    14969
GR1756.0   15544   1760.0    16494
ET             7.1                                      9661    10200
X1  4.714       37     9913    10087       98       98       98
X4      1  1744.0    10200
BT       6    9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT3913.2  1740.5   1733.0   10086.8   1740.5   1733.0    10087   1740.5   1740.5
GR1760.0    1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1740.0    2849   1740.0     2934   1744.0     2944   1744.0     3714   1740.0     4434
GR1740.0    9399   1740.9     9661   1740.3     9913   1733.0   9913.2   1725.6   9927.9
GR1733.0    9928   1733.0   9933.5   1725.6   9933.6   1725.6   9974.2   1733.0   9974.2
GR1733.0   9979.7   1725.6   9979.8   1725.6  10020.4   1733.0  10020.5   1733.0  10025.9
GR1725.6   10026   1725.6  10066.6   1733.0  10066.7   1733.0  10072.1   1725.6  10072.2
GR1733.0  10086.8   1740.0    10087   1744.0    13079   1748.0    14019   1752.0    14969
GR1756.0   15544   1760.0    16494
ET             7.1                                      9661    10200
X1  4.715       23     9913    10087        1        1        1
X3     10                                                1740.5   1740.5
X4      1  1744.0    10200
GR1760.0    1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1740.0    2849   1740.0     2934   1744.0     2944   1744.0     3714   1740.0     4434
GR1740.0    9399   1740.9     9661   1740.3     9913   1733.0   9913.2   1725.6   9927.9
GR1725.6  10372.2  1733.0   10086.8   1740.5    10087   1744.0    13079   1748.0    14019
GR1752.0   14969   1756.0    15544   1760.0    16494
NH       8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
X1  4.72        35     9954    10096       50       50       50
X3                             8875   1744.0    10240   1744.0
GR1760.0    1420   1756.0     1810   1752.0     1995   1748.0     2455   1744.0     2535
GR1740.0    2950   1740.0     3035   1744.0     3050   1744.0     3880   1740.0     4875
GR1740.0    6390   1744.0     7295   1744.0     8875   1742.3     9833   1741.9     9954
GR1729.6    9976   1729.2     9983   1728.3     9995   1728.3    10014   1728.9    10012
GR1729.6   10028   1729.9    10055   1732.5    10062   1733.0    10079   1734.7    10082
GR1743.5   10096   1743.9    10137   1744.0    10240   1744.0    11750   1742.9    12510
GR1744.0   13400   1748.0    14690   1752.0    15375   1756.0    15925   1760.0    16450
NC                    0.1              0.3
NH       8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
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X1  4.75                                  150       150       150
X3                                   9875 1744.0    10240 1744.0
NH        8   0.130      3095   0.045    3280  0.100     7641      0.045     9897   0.035
NH    10059   0.130     13550   0.040   15455  0.130    17025
X1  4.94        32      9897   10059      750       965       965
GR1760.0      1720 1756.0      1875 1756.0      2530 1752.0      2690 1748.0      3095
GR1744.0      3196 1744.0      3280 1744.0      7641 1746.6      9781 1746.3      9889
GR1745.6      9897 1745.6      9912 1730.5      9944 1730.6      9963 1730.6      9982
GR1730.1     10000 1731.9     10014 1734.3     10035 1747.9     10059 1748.7     10097
GR1748.7     10142 1748.0     10160 1744.0     10195 1744.0     11245 1748.0     11520
GR1744.0     13550 1748.0     14300 1752.0     15140 1752.0     15755 1756.0     15965
GR1756.0     16455 1760.0     17025
NH        8   0.130      3500   0.045    3575  0.130     5425      0.045     9330   0.065
NH     9905   0.035     10040   0.130   17355  0.040    18900
X1  5.18        29      9905   10040     1100      1277      1277
GR1768.0      2100 1764.0      2520 1760.0      2820 1756.0      3255 1748.0      3500
GR1748.0      3555 1752.0      3575 1752.0      4030 1748.0      4155 1748.0      5425
GR1748.0      9330 1753.5      9803 1750.8      9826 1750.9      9875 1750.5      9905
GR1732.1      9937 1732.3      9978 1733.7      9988 1732.3      9997 1732.3     10002
GR1735.9     10017 1737.3     10029 1750.8     10040 1753.7     10071 1752.0     10200
GR1752.0     14875 1756.0     15780 1750.8     17355 1770.0     18900
NC                      0.3       0.5
NH        9   0.040      2545   0.130    3465  0.040     3675      0.130     5910   0.045
NH     9160   0.045      9915   0.035   10085  0.130    17630      0.040    18935
X1 5.205        24      9915   10085      150       150       150
GR1772.0      1950 1768.0      2215 1754.0      2545 1760.0      2950 1756.0      3285
GR1752.0      3465 1748.0      3490 1748.0      3555 1752.0      3570 1752.0      3675
GR1748.0      4320 1748.0      5910 1748.0      9160 1749.5      9705 1750.2      9915
GR1732.9      9948 1732.9     10092 1749.9     10085 1750.7     10225 1752.0     10275
GR1752.0     14055 1756.0     15285 1760.0     17630 1770.0     18935
X1 5.206        38      9915   10085        1         1         1
BT        4   9705 1749.5   1749.5      9915 1750.2    1748.6     10085 1749.9   1748.6
BT    10225 1750.7 1750.7
GR1772.0      1950 1768.0      2215 1754.0      2545 1760.0      2950 1756.0      3285
GR1752.0      3465 1748.0      3490 1748.0      3555 1752.0      3570 1752.0      3675
GR1748.0      4320 1748.0      5910 1748.0      9160 1749.5      9705 1748.6      9915
GR1732.9      9950 1748.6   9950.1 1748.6   9951.5 1732.9   9951.6 1732.9   9982.8
GR1748.6   9982.9 1748.6   9984.3 1732.9   9984.4 1732.9  10015.6 1748.6  10015.7
GR1748.6  10017.1 1732.9  10017.2 1732.9  10048.4 1748.6  10048.5 1748.6  10049.9
GR1732.9     10050 1748.6     10085 1750.7     10225 1752.0     10275 1752.0     14055
GR1756.0     15285 1760.0     17630 1770.0     18935
X1 5.224        38      9915   10085       98        98        98
BT        4   9705 1749.5   1749.5      9915 1750.2    1748.6     10085 1749.9   1748.6
BT    10225 1750.7 1750.7
GR1772.0      1950 1768.0      2215 1754.0      2545 1760.0      2950 1756.0      3285
GR1752.0      3465 1748.0      3490 1748.0      3555 1752.0      3570 1752.0      3675
GR1748.0      4320 1748.0      5910 1748.0      9160 1749.5      9705 1748.6      9915
GR1733.1      9948 1748.6   9948.1 1748.6   9953.5 1733.1   9953.6 1733.1   9980.8
GR1748.6   9980.9 1748.6   9986.3 1733.1   9986.4 1733.1  10013.6 1748.6  10013.7
GR1748.6  10019.1 1733.1  10019.2 1733.1  10046.4 1748.6  10046.4 1748.6  10051.9
GR1733.1     10052 1748.6     10085 1750.7     10225 1752.0     10275 1752.0     14055
GR1756.0     15285 1760.0     17630 1770.0     18935
X1 5.225        24      9915   10085        1         1         1
GR1772.0      1950 1768.0      2215 1754.0      2545 1760.0      2950 1756.0      3285
GR1752.0      3465 1748.0      3490 1748.0      3555 1752.0      3570 1752.0      3675
GR1748.0      4320 1748.0      5910 1748.0      9160 1749.5      9705 1750.2      9915
GR1733.1      9948 1733.1     10052 1749.9     10085 1750.7     10225 1752.0     10275
GR1752.0     14055 1756.0     15285 1760.0     17630 1770.0     18935
NH       10   0.040      2530   0.100    3430  0.040     3725      0.130     6415   0.045
NH     9310   0.045      9905   0.035   10040  0.030    10470      0.130    17670   0.040
NH    18830
X1  5.24        32      9905   10040       60        60        60
GR1772.0      2005 1768.0      2380 1754.0      2530 1760.0      2985 1756.0      3280
GR1752.0      3430 1748.0      3445 1748.0      3515 1752.0      3530 1752.0      3725
GR1748.0      5155 1748.0      6415 1748.0      7065 1752.0      9310 1754.5      9803
GR1751.8      9826 1751.9      9875 1751.5      9905 1733.1      9937 1733.3      9978
GR1734.7      9988 1733.3      9997 1733.3     10002 1736.9     10017 1738.3     10029
GR1751.8     10040 1754.7     10071 1752.0     10470 1752.0     13825 1756.0     15240
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GR1760.0   17670   1770.0   18830
NC                    0.1      0.3
VH       5  0.045     3110    0.130     8140   0.040     9916   0.035    10051   0.130
NH 18390
X1  5.46       36     9916    10051     1198    1198     1198
GR1776.0     2110  1772.0     2325  1768.0     2540  1764.0     2980  1760.0     3040
GR1760.0     3110  1760.0     3235  1756.0     3885  1756.0     5415  1752.0     6005
GR1752.0     6970  1756.0     8140  1756.0     9205  1757.8     9459  1756.6     9628
GR1755.6     9634  1757.1     9788  1756.2     9916  1741.7     9949  1741.5     9975
GR1741.4     9995  1741.4    10005  1743.4    10023  1748.9    10034  1748.9    10046
GR1758.0    10051  1759.7    10088  1758.8    10131  1757.5    10151  1758.6    10156
GR1758.9    10191  1756.0    11870  1756.0    13430  1760.0    14710  1760.0    16520
GR1770.0    18390
NC 0.025    0.025  0.025
VH       9  0.045     2785    0.120     4110   0.045     8635   0.080     9540   0.040
VH    9930  0.025    10071    0.130    10430   0.040    10990   0.120    17865
X1  5.75       31     9930    10071     1532    1532     1532
GR1772.0     2445  1768.0     2785  1764.0     4110  1760.0     5145  1760.0     8635
GR1764.0     9540  1764.8     9605  1763.8     9717  1762.6     9821  1762.8     9910
GR1758.6     9930  1744.8     9959  1744.8     9972  1744.8    10028  1744.8    10039
GR1745.0    10041  1763.8    10071  1765.2    10102  1765.3    10169  1765.4    10247
GR1765.8    10344  1763.6    10368  1754.3    10376  1763.8    10430  1764.0    10465
GR1764.0    10815  1760.5    10990  1760.0    14820  1764.0    15135  1764.0    16295
GR1770.0    17865
X1  5.78                              150       150      150
NC                    0.3      0.5
NH       7  0.100     3790    0.040     8475   0.100     9725   0.040     9911   0.025
NH 10091    0.040    10915    0.130    17605
X1 5.794       22     9911    10091       50       150      70
GR1776.0     1580  1772.0     2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0     5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4   1745.7  9945.6   1745.7  10054.5  1762.5  10087.6
GR1763.5    10091  1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130
GR1768.0    16295  1770.0    17605
X1 5.795       36     9911    10091        1         1        1
BT       7  9725  1764.0    1764.0     9911   1764.4   1764.4   9912.4   1766.0   1762.5
BT9983.5  1766.0  1762.5  10087.6   1756.0   1762.5    10091   1763.5   1763.5    10256
BT1764.2  1764.2
GR1776.0     1580  1772.0     2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0     5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4   1745.7  9947.6   1762.5  9947.7   1762.5  9948.9
GR1745.7  9949.0   1745.7  9982.1   1752.5  9982.2   1762.5  9983.4   1745.7  9983.5
GR1745.7 10016.6  1762.5 10016.7   1752.5 10017.9   1745.7 10018.0   1745.7 10051.1
GR1762.5 10051.2  1762.5 10052.4   1745.7 10052.5   1762.5 10087.6   1763.5    10091
GR1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130  1768.0    16295
GR1770.0    17605
X1 5.813       36     9911    10091       98       98       98
BT       7  9725  1764.0    1764.0     9911   1764.4   1764.4   9912.4   1766.0   1762.5
BT9985.5  1766.0  1762.5  10087.6   1766.0   1762.5    10091   1763.5   1763.5    10256
BT1764.2  1764.2
GR1776.0     1580  1772.0     2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0     5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4   1745.9  9945.6   1762.5  9945.7   1762.5  9950.9
GR1745.9  9951.0   1745.9  9980.1   1762.5  9980.2   1762.5  9985.4   1745.9  9985.5
GR1745.9 10014.6  1762.5 10014.7   1752.5 10019.9   1745.9 10020.0   1745.9 10049.1
GR1762.5 10049.2  1762.5 10054.4   1745.9 10054.5   1762.5 10087.6   1763.5    10091
GR1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130  1768.0    16295
GR1770.0    17605
X1 5.814       22     9911    10091        1         1        1
GR1776.0     1580  1772.0     2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0     5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4   1745.9  9945.6   1745.9  10054.5  1762.5  10087.6
GR1763.5    10091  1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130
GR1768.0    16295  1770.0    17605
VH       7  0.130     3750    0.045     8368   0.100     9605   0.05      9913   0.032
NH 10069    0.040    10430    0.130    17560
X1  5.82       30     9913    10069       30       30       30
GR1776.0     1480  1772.0     2280  1768.0     2765  1768.0     3750  1764.0     4200
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GR1764.0	4650	1760.0	5405	1760.0	6855	1763.2	8360	1764.0	9605
GR1762.5	9753	1761.2	9821	1763.8	9857	1761.4	9883	1760.3	9897
GR1760.7	9913	1748.4	9941	1750.0	9953	1749.4	9966	1745.9	9973
GR1745.9	10027	1760.1	10069	1759.3	10083	1760.2	10112	1761.4	10148
GR1760.3	10182	1764.0	10430	1764.0	15750	1768.0	16260	1770.0	17560
NC			0.1	0.3					
NH 7	0.100	5985	0.040	7995	0.100	9841	0.050	9913	0.032
NH 10069	0.050	15015	0.130	17710					
XI 5.96	26	9913	10069	750	650	730			
GR1776.0	1875	1772.0	2370	1758.0	3700	1764.0	5985	1764.0	7995
GR1764.0	9600	1764.5	9841	1764.5	9888	1761.8	9897	1759.7	9913
GR1751.8	9941	1752.0	9953	1752.0	9966	1749.4	9973	1749.4	10027
GR1762.4	10069	1761.8	10083	1762.4	10112	1763.7	10148	1762.4	10182
GR1764.1	10289	1768.0	10455	1768.0	15015	1768.0	16445	1770.0	16960
GR1775.0	17710								
QY 1	6400								
NH 7	0.100	9698	0.040	9939	0.032	10054	0.040	13800	0.100
NH 14580	0.040	15590	0.130	17505					
K1 6.16	48	9939	10054	1056	1056	1056			
GR1780.0	1375	1776.0	2245	1772.0	3025	1768.0	9030	1769.1	9698
GR1768.1	9728	1764.7	9756	1765.1	9763	1769.1	9786	1766.9	9809
GR1766.9	9845	1766.7	9878	1761.5	9892	1767.3	9911	1763.0	9939
GR1755.1	9952	1751.8	9989	1751.8	10011	1760.7	10044	1764.9	10054
GR1764.9	10072	1765.8	10077	1755.7	10090	1764.9	10098	1765.7	10102
GR1767.6	10111	1766.9	10147	1756.3	10164	1766.6	10174	1766.5	10208
GR1766.5	10228	1766.5	10267	1764.9	10286	1764.7	10315	1765.3	10352
GR1767.6	10374	1768.3	10401	1756.5	10440	1767.7	10441	1766.0	10550
GR1768.0	11200	1772.0	11545	1772.0	13800	1772.0	14580	1772.0	15590
GR1772.0	16400	1776.0	17255	1780.0	17505				
NH 8	0.090	7425	0.130	9676	0.040	9949	0.045	10057	0.040
NH 10339	0.100	12245	0.040	13590	0.130	17275			
K1 6.35	28	9949	10057	1100	950	1004			
GR1784.0	1180	1780.0	1770	1776.0	3005	1776.0	7425	1776.0	9020
GR1772.4	9676	1772.4	9743	1772.8	9870	1771.8	9949	1762.9	9968
GR1760.4	9981	1760.2	9992	1760.2	10008	1760.3	10019	1760.3	10027
GR1760.4	10032	1766.1	10045	1771.8	10057	1772.4	10084	1771.6	10099
GR1771.6	10125	1772.8	10172	1774.9	10339	1775.5	12245	1776.0	13590
GR1776.0	15835	1776.0	16755	1780.0	17275				
NH 6	0.090	8115	0.130	9946	0.045	10057	0.100	11980	0.040
NH 16070	0.130	18375							
K1 6.40	34	9946	10057	300	270	292			
K3			9862	1775.1	10128	1774.0			
GR1784.0	1215	1780.0	2265	1776.0	6430	1776.0	8115	1776.0	9640
GR1775.6	9710	1773.9	9772	1773.9	9799	1773.6	9810	1775.1	9862
GR1775.0	9946	1767.1	9964	1767.1	9983	1766.4	9991	1766.4	9995
GR1766.4	10009	1770.2	10033	1773.3	10057	1773.0	10073	1772.7	10087
GR1774.0	10128	1772.6	10143	1772.6	10183	1772.6	10224	1766.6	10239
GR1766.6	10247	1774.1	10268	1776.2	10297	1776.0	10850	1776.0	11980
GR1776.0	13470	1778.9	16070	1780.0	17095	1784.0	18375		
NH 7	0.090	8865	0.100	9932	0.045	10035	0.045	10610	0.100
NH 11340	0.045	15790	0.130	18305					
K1 6.57	29	9932	10035	920	500	856			
K3 10									
GR1788.0	35	1784.0	1250	1780.0	4925	1780.0	8865	1777.8	9808
GR1777.8	9828	1778.8	9854	1781.6	9932	1770.6	9945	1769.3	9972
GR1769.3	9982	1768.5	9991	1768.5	10009	1773.3	10020	1773.3	10032
GR1781.6	10035	1779.6	10061	1777.5	10085	1779.6	10129	1779.6	10224
GR1776.8	10433	1776.0	10475	1776.0	10610	1780.0	11340	1780.0	15790
GR1780.0	17135	1784.0	17805	1788.0	18025	1790.0	18305		
NH 9	0.130	4690	0.100	13425	0.130	14809	0.030	14942	0.035
NH 15039	0.045	16195	0.100	16755	0.045	21140	0.130	22860	
K1 6.71	42	14942	15039	650	450	780			
K3			14942	1784.8	15039	1784.8			
GR1796.0	2680	1792.0	3960	1792.0	4690	1784.0	8200	1784.0	12020
GR1784.0	13425	1780.0	14065	1780.0	14680	1777.4	14809	1777.6	14835
GR1778.5	14910	1779.0	14914	1784.8	14942	1773.0	14956	1769.3	14987
GR1769.3	14997	1769.3	15012	1771.9	15025	1784.8	15039	1781.9	15040
GR1781.9	15071	1781.0	15110	1781.3	15136	1781.2	15150	1781.2	15167

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GR1790.0   15195   1782.1   15222   1782.1   15298   1781.8   15387   1779.8   15404
GR1779.8   15461   1781.6   15472   1781.0   15531   1780.0   15640   1780.0   15710
GR1782.0   16195   1782.0   16755   1784.0   21140   1784.0   21960   1788.0   22235
GR1792.0   22575   1796.0   22960
EJ


ER
EOF..
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     49
   4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   4.42        Centerline Station at 10000
  4.437        Centerline Station at 10000
  4.438        Centerline Station at 10000
  4.456        ****  Nellis Boulevard  ****
  4.456             1* Debris Loading
  4.456               Normal Bridge
  4.456        Centerline Station at 10000
  4.457        Centerline Station at 10000
   4.47        Centerline Station at 10000
   4.57        Centerline Station at 10000
   4.68        Centerline Station at 10000
  4.695        Centerline Station at 10000
  4.696        Centerline Station at 10000
  4.714        ****  Charleston Boulevard  ****
  4.714             2* Debris Loading
  4.714               Normal Bridge
  4.714        Centerline Station at 10000
  4.715        Centerline Station at 10000
   4.72        Centerline Station at 10000
   4.75        Centerline Station at 10000
   4.94        Centerline Station at 10000
   5.18        Centerline Station at 10000
  5.205        Centerline Station at 10000
  5.206        Centerline Station at 10000
  5.224        ****  Stewart Avenue  ****
  5.224             2* Debris Loading
  5.224               Normal Bridge
  5.224        Centerline Station at 10000
  5.225        Centerline Station at 10000
   5.24        Centerline Station at 10000
   5.46        Centerline Station at 10000
   5.75        Centerline Station at 10000
   5.78        Centerline Station at 10000
  5.794        Centerline Station at 10000
  5.795        Centerline Station at 10000
  5.813        ****  Bonanza Avenue  ****
  5.813             2* Debris Loading
  5.813               Normal Bridge
  5.813        Centerline Station at 10000
  5.814        Centerline Station at 10000
   5.82        Centerline Station at 10000
   5.96        Centerline Station at 10000
   6.16        Centerline Station at 10000
   6.35        Centerline Station at 10000
   6.35        Confluence of Washington Ave Channel
   6.40        Centerline Station at 10000
   6.57        Centerline Station at 10000
   6.71        Centerline Station at 15000
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - 100-YEAR (Middle Reach)                          10/87      SRM
J1              2                                                          1738.4
J2     -1              -1
J3    150
NC  0.050    0.027   0.0450      0.1      0.3
NT      2    24000    84000
NH      5    0.045     3880    0.130     3050    0.050     9935    0.045    10132    0.100
NH  15890
X1   4.42       27     9935    10132      992      992      992
GR1748.0     2045   1744.0     2335   1740.0     3060   1740.0     3515   1736.0     3675
GR1736.0     3880   1736.0     6450   1736.5     8050   1739.7     9731   1739.7     9794
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GR1737.4    9813   1737.0    9935   1724.9    9956   1724.8   10010   1724.2   10052
GR1732.3   10072   1735.4   10095   1737.6   10132   1737.6   10179   1738.0   10236
GR1736.0   10750   1735.6   11580   1736.0   12365   1740.0   13440   1744.0   14870
GR1744.0   15500   1748.0   15890
NC                    0.3     0.5
NH       5  0.045    3896    0.130    8066    0.050    9933   0.045   10067   0.100
NH 15905
X1  4.437       24    9933   10067      90      90      90
GR1748.8     2061   1744.0    2351   1740.0    3076   1740.0    3531   1736.0    3691
GR1736.0     3896   1736.0    6466   1736.5    8066   1739.7    9747   1735.5    9827
GR1736.0     9933   1724.0    9953   1724.0   10047   1736.0   10067   1737.6   10147
GR1737.6    10194   1738.0   10251   1736.0   10765   1735.6   11595   1736.0   12380
GR1740.0    13455   1744.0   14885   1744.0   15515   1748.0   15905
X1  4.438       38    9933   10067       1       1       1
BT       7   9747   1739.7   1739.7   9827   1737.5   1735.5   9933   1737.5   1736.0
BT 10067   1737.5   1736.0   10147   1737.6   1737.6   10194   1737.6   1737.6   10251
BT1738.0   1738.0
GR1748.0     2061   1744.0    2351   1740.0    3076   1740.0    3531   1736.0    3691
GR1736.0     3896   1736.0    6466   1736.5    8066   1739.7    9747   1735.5    9827
GR1736.0     9933   1724.0    9954   1736.0  9954.1   1736.0    9956   1724.0  9956.1
GR1724.0     9934   1736.0  9984.1   1736.0    9986   1724.0  9986.1   1724.0   10014
GR1736.0  10014.1   1736.0   10016   1724.0  10016.1   1724.0   10044   1736.0  10044.1
GR1736.0    10046   1724.0  10046.1   1736.0   10067   1737.6   10147   1737.6   10194
GR1738.0    10251   1736.0    10765   1735.6   11595   1736.0   12380   1740.0   13455
GR1744.0    14885   1744.0    15515   1748.0   15905
X1  4.456       38    9933   10067      98      98
BT       7   9747   1739.7   1739.7   9827   1737.5   1735.5   9933   1737.5   1736.0
BT 10067   1737.5   1736.0   10147   1737.6   1737.6   10194   1737.6   1737.6   10251
BT1738.0   1738.0
GR1748.0     2061   1744.0    2351   1740.0    3076   1740.0    3531   1736.0    3691
GR1736.0     3896   1736.0    6466   1736.5    8066   1739.7    9747   1735.5    9827
GR1736.0     9933   1724.0    9953   1736.0  9953.1   1736.0    9957   1724.0  9957.1
GR1724.0     9933   1736.0  9983.1   1736.0    9987   1724.0  9987.1   1724.0   10013
GR1736.0  10013.1   1736.0   10017   1724.0  10017.1   1724.0   10043   1736.0  10043.1
GR1736.0    10047   1724.0  10047.1   1736.0   10067   1737.6   10147   1737.6   10194
GR1738.0    10251   1736.0    10765   1735.6   11595   1736.0   12380   1740.0   13455
GR1744.0    14885   1744.0    15515   1748.0   15905
X1  4.457       24    9933   10067       1       1       1
X2                                                                          15
GR1748.0     2061   1744.0    2351   1740.0    3076   1740.0    3531   1736.0    3691
GR1736.0     3896   1736.0    6466   1736.5    8066   1739.7    9747   1735.5    9827
GR1736.0     9933   1724.0    9953   1724.0   10047   1736.0   10067   1737.6   10147
GR1737.6    10194   1738.0   10251   1736.0   10765   1735.6   11595   1736.0   12380
GR1740.0    13455   1744.0   14885   1744.0   15515   1748.0   15905
BT       2   24000   84000
NH       6  0.045    3730    0.130    8295    0.050    9966   0.045   10097   0.050
NH 11360   0.100   15640
X1   4.47       41    9919   10050      60      60      60
GR1752.0     1595   1748.0    2035   1744.8    2425   1740.0    2805   1740.0    2915
GR1740.0     3730   1736.0    3745   1736.0    3840   1740.0    4015   1740.0    5405
GR1736.0     6015   1736.0    6200   1737.2    8295   1739.2    9740   1738.8    9851
GR1737.3     9875   1739.1    9903   1736.9    9919   1725.6    9942   1725.6    9963
GR1727.1     9978   1724.8    9989   1724.8   10010   1728.9   10012   1728.1   10025
GR1733.8    10029   1737.5   10040   1738.8   10050   1738.8   10072   1737.1   10078
GR1737.7    10230   1737.1   10310   1738.4   10373   1739.4   10392   1737.3   10397
GR1738.4    10434   1736.0   11360   1740.0   12920   1744.0   13910   1748.0   14620
GR1752.8    15640
NC                    0.1     0.3
NH       6  0.045    3365    0.130    8820    0.050    9470   0.065    9914   0.055
NH 10061   0.070   10493    0.100   15515
X1  4.457       43    9914   10061     350     800     562
GR1756.0     1380   1752.0    1575   1748.0    2055   1744.0    2675   1740.0    2690
GR1740.0     2770   1744.0    2780   1744.0    3365   1740.0    4025   1740.0    5560
GR1738.0     6140   1740.0    6590   1740.0    8820   1740.0    9470   1740.5    9751
GR1738.8     9852   1737.3    9886   1739.1    9914   1736.9    9938   1725.6    9953
GR1725.6     9974   1727.1    9989   1725.0   10000   1725.8   10021   1728.9   10023
GR1728.1    10036   1733.8   10040   1737.5   10051   1738.8   10061   1738.8   10083
GR1737.1    10089   1737.7   10241   1737.1   10321   1738.4   10384   1739.4   10403
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GR1737.3   10408   1734.4   10445   1740.5   10493   1740.0   11525   1744.0   13145
GR1748.0   14000   1752.0   14575   1756.0   15515
NH       5   0.130     1580   0.045     3635   0.130     9935   0.050    10050   0.100
NH 16450
K1  4.68        26     9935    10065      350      550      540
GR1760.0      1210   1756.0     1580   1752.0     1775   1748.0     2215   1744.0     2755
GR1744.0      2865   1744.0     3635   1740.0     4355   1740.0     9320   1740.0     9935
GR1725.6      9942   1725.6     9963   1727.1     9978   1725.2     9989   1725.2    10010
GR1728.9     10012   1728.1    10025   1733.8    10029   1737.5    10040   1738.8    10050
GR1740.0     10055   1744.0    13035   1748.0    13975   1752.0    14925   1756.0    15500
GR1760.0     16450
NC                             0.3     0.5
NH       5   0.130     1659   0.045     3714   0.130     9913   0.050    10087   0.100
NH 16494
K1  4.695       21     9913    10087      100      100      100
GR1760.0      1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0      2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3      9913   1733.0   9913.2   1725.6   9927.9   1725.6  10072.2   1733.0  10086.8
GR1740.5     10087   1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544
GR1760.0     16494
ET             4.1                    11800
K1  4.696       35     9913    10087        1        1        1
BT       6    9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT9913.2   1740.5   1733.0  10086.8   1740.5   1733.0    10087   1740.5   1740.5
GR1760.0      1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0      2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3      9913   1733.0   9913.2   1725.6   9927.9   1733.0     9930   1733.0   9931.5
GR1725.6    9931.6   1725.6   9976.2   1733.0   9976.3   1733.0   9977.7   1725.6   9977.8
GR1725.6   10022.4   1733.0  10022.5   1733.0  10023.9   1725.6    10024   1725.6  10068.6
GR1733.0   10068.7   1733.0  10070.1   1725.6  10070.2   1733.0  10086.8   1740.0    10087
GR1744.0     13079   1748.0    14019   1752.0    14969   1756.0    15544   1760.0    16494
ET             4.1                    11800
K1  4.714       35     9913    10087       98       98       98
BT       6    9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT9913.2   1740.5   1733.0  10086.8   1740.5   1733.0    10087   1740.5   1740.5
GR1760.0      1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0      2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3      9913   1733.0   9913.2   1725.6   9927.9   1733.0     9928   1733.0   9933.5
GR1725.6    9933.6   1725.6   9974.2   1733.0   9974.2   1733.0   9979.7   1725.6   9979.8
GR1725.6   10020.4   1733.0  10020.5   1733.0  10025.9   1725.6    10026   1725.6  10066.6
GR1733.0   10066.7   1733.0  10072.1   1725.6  10072.2   1733.0  10086.8   1740.0    10087
GR1744.0     13079   1748.0    14019   1752.0    14969   1756.0    15544   1760.0    16494
ET             4.1                    11800
K1  4.715       21     9913    10087        1        1        1
GR1760.0      1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0      2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3      9913   1733.0   9913.2   1725.6   9927.9   1725.6  10072.2   1733.0  10086.8
GR1740.5     10087   1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544
GR1760.0     16494
NH       8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
ET             4.1                    11800
K1  4.72        33     9954    10096       50       50       50
GR1760.0      1420   1756.0     1810   1752.0     1995   1748.0     2455   1744.0     2935
GR1744.0      3050   1744.0     3880   1740.0     4875   1740.0     6390   1744.0     7295
GR1744.0      8875   1742.3     9833   1741.9     9954   1729.6     9976   1729.2     9988
GR1728.3      9935   1728.3    10004   1728.9    10012   1729.6    10028   1729.9    10055
GR1732.6     10052   1733.0    10079   1734.7    10082   1743.5    10096   1743.9    10137
GR1744.0     10240   1744.0    11760   1742.9    12510   1744.0    13400   1748.0    14690
GR1752.0     15375   1756.0    15925   1760.0    16450
NC                             0.1     0.3
NH       8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
X1  4.75                       150      150      150
NH       8   0.130     3095   0.045     3280   0.100     7641   0.045     9897   0.035
NH 10059   0.130    13550   0.040    16455   0.130    17025
ET             4.1                    10097
X1  4.94        32     9897    10059      750      965      965
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GR1760.0     1720  1756.0     1875  1756.0     2530  1752.0     2690  1746.0     3095
GR1744.0     3196  1744.0     3280  1744.0     7641  1746.6     9731  1746.3     9889
GR1745.6     9897  1745.6     9912  1730.5     9944  1730.6     9963  1730.6     9982
GR1730.1    10000  1731.9    10014  1734.3    10035  1747.9    10059  1748.7    10097
GR1748.7    10142  1748.0    10160  1744.0    10195  1744.0    11245  1748.0    11520
GR1744.0    13550  1748.0    14300  1752.0    15140  1752.0    15755  1756.0    15865
GR1756.0    16455  1760.0    17025
NH     6    0.130     5425   0.045     9330   0.065     9905   0.035    10040   0.130
NH 17355    0.040    18900
X1  5.18       27     9905    10040     1100     1277     1277
GR1768.0     2100  1764.0     2520  1760.0     2820  1756.0     3255  1752.0     3575
GR1752.0     4030  1748.0     4155  1748.0     5425  1748.0     9330  1753.5     9803
GR1750.8     9826  1750.9     9875  1750.5     9905  1732.1     9937  1732.3     9978
GR1733.7     9988  1732.3     9997  1732.3    10002  1735.9    10017  1737.3    10029
GR1750.8    10040  1753.7    10071  1752.0    10200  1752.0    14875  1756.0    15780
GR1760.0    17355  1770.0    18900
NC                    0.3       0.5
NH     9    0.040     2545   0.130     3465   0.040     3675   0.130     5910   0.045
NH  9160    0.045     9915   0.035    10085   0.130    17630   0.040    18935
X1 5.205       22     9915    10085      150      150      150
GR1772.0     1950  1768.0     2215  1764.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1752.0     3570  1752.0     3675  1748.0     4320  1748.0     5910
GR1748.0     9160  1749.5     9705  1750.2     9915  1732.9     9948  1732.9    10052
GR1749.9    10085  1750.7    10225  1752.0    10275  1752.0    14055  1756.0    15285
GR1760.0    17630  1770.0    18935
X1 5.206       36     9915    10085         1        1        1
BT     4     9705  1749.5  1749.5     9915  1750.2  1748.6    10085  1749.9  1748.6
BT 10225  1750.7  1750.7
GR1772.0     1950  1768.0     2215  1764.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1752.0     3570  1752.0     3675  1748.0     4320  1748.0     5910
GR1748.0     9160  1749.5     9705  1748.6     9915  1732.9     9950  1748.6  9950.1
GR1748.6  9951.5  1732.9  9951.6  1732.9  9982.8  1748.6  9982.9  1748.6  9984.3
GR1732.9  9984.4  1732.9 10015.6  1748.6 10015.7  1748.6 10017.1  1732.9 10017.2
GR1732.9 10048.4  1748.6 10048.5  1748.6 10049.9  1732.9    10050  1748.6    10085
GR1750.7    10225  1752.0    10275  1752.0    14055  1756.0    15285  1760.0    17630
GR1770.0    18935
X1 5.224       36     9915    10085       98       98       98
BT     4     9705  1749.5  1749.5     9915  1750.2  1748.6    10085  1749.9  1748.6
BT 10225  1750.7  1750.7
GR1772.0     1950  1768.0     2215  1764.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1752.0     3570  1752.0     3675  1748.0     4320  1748.0     5910
GR1748.0     9160  1749.5     9705  1748.6     9915  1733.1     9948  1748.6  9948.1
GR1748.6  9953.5  1733.1  9953.6  1733.1  9980.8  1748.6  9980.9  1748.6  9986.3
GR1733.1  9986.4  1733.1 10013.6  1748.6 10013.7  1748.6 10019.1  1733.1 10019.2
GR  T3q  PRELIM,22,88,22,88,2 B3q  PRIMARY,24,18
EOF..
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     48
   4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   4.42        Centerline Station at 10000
  4.437        Centerline Station at 10000
  4.438        Centerline Station at 10000
  4.456        ****  Nellis Boulevard  ****
  4.456             1* Debris Loading
  4.456               Normal Bridge
  4.456        Centerline Station at 10000
  4.457        Centerline Station at 10000
   4.47        Centerline Station at 10000
   4.57        Centerline Station at 10000
   4.68        Centerline Station at 10000
  4.695        Centerline Station at 10000
  4.696        Centerline Station at 10000
  4.714        ****  Charleston Boulevard  ****
  4.714             2* Debris Loading
  4.714               Normal Bridge
  4.714        Centerline Station at 10000
  4.715        Centerline Station at 10000
   4.72        Centerline Station at 10000
   4.75        Centerline Station at 10000
   4.94        Centerline Station at 10000
   5.18        Centerline Station at 10000
  5.205        Centerline Station at 10000
  5.206        Centerline Station at 10000
  5.224        ****  Stewart Avenue  ****
  5.224             2* Debris Loading
  5.224               Normal Bridge
  5.224        Centerline Station at 10000
  5.225        Centerline Station at 10000
   5.24        Centerline Station at 10000
   5.46        Centerline Station at 10000
   5.75        Centerline Station at 10000
   5.78        Centerline Station at 10000
  5.794        Centerline Station at 10000
  5.795        Centerline Station at 10000
  5.813        ****  Bonanza Avenue  ****
  5.813             2* Debris Loading
  5.813               Normal Bridge
  5.813        Centerline Station at 10000
  5.814        Centerline Station at 10000
   5.82        Centerline Station at 10000
   5.96        Centerline Station at 10000
   6.16        Centerline Station at 10000
   6.35        Centerline Station at 10000
   6.40        Centerline Station at 10000
   6.57        Centerline Station at 10000
   6.71        Centerline Station at 15000
T1             CCRFCD/COE OVERFLOW STUDY
T2             JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3             LAS VEGAS WASH - 25-YEAR (Middle Reach)                    12/87     SRM
J1                  2                                    0.5            1733.9
J2      -1                 -1
J3     150
NC  0.050    0.027   0.0450      0.1      0.3
NT       1    7800
NH       5   0.045     3880    0.130     8050    0.050     9935    0.045    10132    0.100
NH   15890
X1    4.42       27     9935    10132      992      992      992
GR 1748.0     2045   1744.0     2335   1740.0     3060   1740.0     3515   1736.0     3675
GR 1736.0     3880   1736.0     6450   1736.5     8050   1739.7     9731   1739.7     9794
GR 1737.4     9813   1737.0     9935   1724.9     9956   1724.8    10000   1724.2    10052
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GR1732.5   19972   1735.4   10095   1737.6   10132   1737.6   10179   1738.0   10236
GR1736.0   10750   1735.6   11580   1736.0   12365   1740.0   13440   1744.0   14870
GR1744.0   15500   1748.0   15890
NC                    0.3              0.5
NH       5   0.045     3896   0.130     8066   0.050     9933   0.045    10067   0.100
NH 15905
K1  4.437       24     9933    10067       90       90       90
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6    10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0    13455   1744.0    14885   1744.0    15515   1748.0    15905
K1  4.438       38     9533    10067        1        1        1
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT 10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9954   1736.0   9954.1   1736.0     9956   1724.0   9956.1
GR1724.0     9984   1736.0   9984.1   1736.0     9986   1724.0   9986.1   1724.0    10014
GR1736.0  10014.1   1736.0    10016   1724.0  10016.1   1724.0    10044   1736.0  10044.1
GR1736.0    10046   1724.0  10046.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0    14885   1744.0    15515   1748.0    15905
K1  4.456       38     9933    10067       98       98       98
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT 10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1736.0   9953.1   1736.0     9957   1724.0   9957.1
GR1724.0     9983   1736.0   9983.1   1736.0     9987   1724.0   9987.1   1724.0    10013
GR1736.0  10013.1   1736.0    10017   1724.0  10017.1   1724.0    10043   1736.0  10043.1
GR1736.0    10047   1724.0  10047.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0    14835   1744.0    15515   1748.0    15905
K1  4.457       24     9933    10067        1        1        1
K2                                                                          15
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6    10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0    13455   1744.0    14885   1744.0    15515   1748.0    15905
QT       1     6800
NH       6   0.045     3730   0.130     8295   0.050     9966   0.045    10097   0.050
NH 11360   0.100    15640
K1   4.47       41     9919    10050       60       60       60
GR1752.0     1595   1748.0     2035   1744.0     2425   1740.0     2805   1740.0     2915
GR1740.0     3730   1736.0     3745   1736.0     3840   1740.0     4015   1740.0     5405
GR1736.0     6015   1736.0     6200   1737.2     8295   1739.2     9740   1738.8     9851
GR1737.3     9875   1739.1     9903   1736.9     9919   1725.6     9942   1725.6     9963
GR1727.1     9978   1724.8     9989   1724.8    10010   1728.9    10012   1728.1    10025
GR1733.8    10029   1737.5    10040   1738.8    10050   1738.8    10072   1737.1    10078
GR1737.7    10230   1737.1    10310   1738.4    10373   1739.4    10392   1737.3    10397
GR1738.4    10434   1736.0    11360   1740.0    12920   1744.0    13910   1748.0    14620
GR1752.0    15640
NC                    0.1              0.3
NH       6   0.045     3365   0.130     8820   0.050     9470   0.065     9914   0.055
NH 10061   0.070    10493   0.100    15515
K1   4.57       43     9914    10061      350      800      562
K3     10
GR1756.0     1380   1752.0     1575   1748.0     2055   1744.0     2675   1740.0     2690
GR1740.0     2770   1744.0     2780   1744.0     3365   1740.0     4025   1740.0     5560
GR1738.0     6140   1740.0     6990   1740.0     8820   1740.0     9470   1740.5     9751
GR1738.8     9862   1737.3     9886   1739.1     9914   1736.9     9930   1725.6     9953
GR1725.6     9974   1727.1     9989   1725.0    10000   1725.8    10021   1728.9    10023
GR1728.1    10036   1733.8    10040   1737.5    10051   1738.8    10061   1738.8    10083
GR1737.1    10039   1737.7    10241   1737.1    10321   1738.4    10384   1739.4    10403
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GR1737.3  10453  1738.4  10465  1740.5  10493  1740.0  11525  1744.0  13145
GR1748.0  14000  1752.0  14575  1756.0  15515
VH      5  0.130    1590  0.045    3635  0.130    9935  0.050   10050  0.100
VH 16450
X1   4.68      28    9935   10065     350     550     540
GR1760.0    1210  1756.0    1580  1752.0    1775  1748.0    2215  1744.0    2755
GR1740.0    2770  1740.0    2855  1744.0    2865  1744.0    3635  1740.0    4355
GR1740.0    9320  1740.0    9935  1725.6    9942  1725.6    9963  1727.1    9978
GR1725.2    9989  1725.2   10010  1728.9   10012  1728.1   10025  1733.8   10029
GR1737.5   10043  1738.8   10050  1740.0   10065  1744.0   13035  1748.0   13975
GR1752.0   14925  1756.0   15500  1760.0   16450
VC                  0.3           0.5
VH      5  0.130    1659  0.045    3714  0.130    9913  0.050   10087  0.100
VH 16494
K1  4.695      23    9913   10087     100     100     100
X3     10                                          1735    1735
GR1760.0    1289  1756.0    1659  1752.0    1854  1748.0    2294  1744.0    2834
GR1740.0    2849  1740.0    2934  1744.0    2944  1744.0    3714  1740.0    4434
GR1740.0    9399  1740.9    9661  1740.3    9913  1733.0  9913.2  1725.6  9927.9
GR1725.6  10072.2  1733.0  10086.8  1740.5   10087  1744.0   13079  1748.0   14019
GR1752.0   14969  1756.0   15544  1760.0   16494
K1  4.696      37    9913   10087       1       1       1
BT      6    9661  1740.9  1740.9    9913  1740.3  1740.3  9913.2  1740.5  1733.0
BT9913.2  1740.5  1733.0  10086.8  1740.5  1733.0   10087  1740.5  1740.5
GR1760.0    1289  1756.0    1659  1752.0    1854  1748.0    2294  1744.0    2834
GR1740.0    2849  1740.0    2934  1744.0    2944  1744.0    3714  1740.0    4434
GR1740.0    9399  1740.9    9661  1740.3    9913  1733.0  9913.2  1725.6  9927.9
GR1733.0    9930  1733.0  9931.5  1725.6  9931.6  1725.6  9976.2  1733.0  9976.3
GR1733.0  9977.7  1725.6  9977.8  1725.6 10022.4  1733.0 10022.5  1733.0 10023.9
GR1725.6   10024  1725.6 10068.6  1733.0 10068.7  1733.0 10070.1  1725.6 10070.2
GR1733.0  10086.8  1740.0   10087  1744.0   13079  1748.0   14019  1752.0   14969
GR1756.0   15544  1760.0   16494
ST             7.1                                 9661   10200
K1  4.714      37    9913   10087      98      98      98
X4      1  1744.0   10200
BT      6    9661  1740.9  1740.9    9913  1740.3  1740.3  9913.2  1740.5  1733.0
BT9913.2  1740.5  1733.0  10086.8  1740.5  1733.0   10087  1740.5  1740.5
GR1760.0    1289  1756.0    1659  1752.0    1854  1748.0    2294  1744.0    2834
GR1740.0    2849  1740.0    2934  1744.0    2944  1744.0    3714  1740.0    4434
GR1740.0    9399  1740.9    9661  1740.3    9913  1733.0  9913.2  1725.6  9927.9
GR1733.0    9928  1733.0  9933.5  1725.6  9933.6  1725.6  9974.2  1733.0  9974.2
GR1733.0  9979.7  1725.6  9979.8  1725.6 10020.4  1733.0 10020.5  1733.0 10025.9
GR1725.6   10026  1725.6 10066.6  1733.0 10066.7  1733.0 10072.1  1725.6 10072.2
GR1733.0  10086.8  1740.0   10087  1744.0   13079  1748.0   14019  1752.0   14969
GR1756.0   15544  1760.0   16494
ST             7.1                                 9661   10200
K1  4.715      23    9913   10087       1       1       1
X3     10                                        1740.5  1740.5
X4      1  1744.0   10200
GR1760.0    1289  1756.0    1659  1752.0    1854  1748.0    2294  1744.0    2834
GR1740.0    2849  1740.0    2934  1744.0    2944  1744.0    3714  1740.0    4434
GR1740.0    9399  1740.9    9661  1740.3    9913  1733.0  9913.2  1725.6  9927.9
GR1725.6  10072.2  1733.0  10086.8  1740.5   10087  1744.0   13079  1748.0   14019
GR1752.0   14969  1756.0   15544  1760.0   16494
VH      8  0.130    1810  0.045    3880  0.130    8875  0.040    9954  0.035
VH 10096  0.100   14690  0.045   15375  0.130   16450
K1   4.72      35    9954   10096      59      58      58
K3                         8875  1744.0   10240  1744.0
GR1760.0    1420  1756.0    1810  1752.0    1995  1748.0    2455  1744.0    2935
GR1740.0    2950  1740.0    3035  1744.0    3050  1744.0    3880  1740.0    4875
GR1740.0    6390  1744.0    7295  1744.0    8875  1742.3    9833  1741.9    9954
GR1729.6    9976  1729.2    9988  1728.3    9995  1728.3   10004  1728.9   10012
GR1729.6   10028  1729.9   10055  1732.6   10062  1733.0   10079  1734.7   10082
GR1743.5   10096  1743.9   10137  1744.0   10240  1744.0   11760  1742.9   12510
GR1744.0   13400  1748.9   14690  1752.0   15375  1756.0   15925  1760.0   16450
VC                  0.1           0.3
VH      8  0.130    1810  0.045    3880  0.130    8875  0.040    9954  0.035
VH 10096  0.100   14690  0.045   15375  0.130   16450
```

K1 4.75				150	150	150				
K3			9875	1744.0	10240	1744.0				
NH 8	0.130	3095	0.045	3280	0.100	7641	0.045	9897	0.035	
NH 10059	0.130	13550	0.040	15455	0.130	17025				
K1 4.94	32	9897	10059	750	965	965				
GR1760.0	1720	1756.0	1875	1756.0	2530	1752.0	2690	1748.0	3095	
GR1744.0	3196	1744.0	3280	1744.0	7641	1746.6	9781	1746.3	9889	
GR1745.6	9897	1745.6	9912	1730.5	9944	1730.6	9963	1730.6	9982	
GR1730.1	10000	1731.9	10014	1734.3	10035	1747.9	10059	1748.7	10097	
GR1748.7	10142	1748.0	10160	1744.0	10195	1744.0	11245	1748.0	11520	
GR1744.0	13550	1748.0	14300	1752.0	15140	1752.0	15755	1756.0	15865	
GR1756.0	16455	1760.0	17025							
NH 8	0.130	3500	0.045	3575	0.130	5425	0.045	9330	0.065	
NH 9905	0.035	10040	0.130	17355	0.040	18900				
K1 5.18	29	9905	10040	1100	1277	1277				
GR1768.0	2100	1764.0	2520	1760.0	2820	1756.0	3255	1748.0	3500	
GR1748.0	3555	1752.0	3575	1752.0	4030	1748.0	4155	1748.0	5425	
GR1746.0	9330	1753.5	9803	1750.3	9826	1750.9	9875	1750.5	9905	
GR1732.1	9937	1732.3	9978	1733.7	9988	1732.3	9997	1732.3	10002	
GR1735.9	10017	1737.3	10029	1750.8	10040	1753.7	10071	1752.0	10200	
GR1752.0	14875	1756.0	15780	1760.0	17355	1770.0	18900			
NC			0.3	0.5						
NH 9	0.040	2545	0.130	3465	0.040	3675	0.130	5910	0.045	
NH 9160	0.045	9915	0.035	10085	0.130	17630	0.040	18935		
K1 5.295	24	9915	10085	150	150	150				
GR1772.0	1950	1768.0	2215	1764.0	2545	1760.0	2950	1756.0	3285	
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675	
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1750.2	9915	
GR1732.9	9948	1732.9	10052	1749.9	10085	1750.7	10225	1752.0	10275	
GR1752.0	14055	1756.0	15285	1760.0	17630	1770.0	18935			
K1 5.206	38	9915	10085	1	1	1				
BT 4	9705	1749.5	1749.5	9915	1750.2	1748.6	10085	1749.9	1748.6	
BT 10225	1750.7	1750.7								
GR1772.0	1950	1768.0	2215	1764.0	2545	1760.0	2950	1756.0	3285	
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675	
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1748.6	9915	
GR1732.9	9950	1748.6	9950.1	1748.6	9951.5	1732.9	9951.6	1732.9	9982.8	
GR1748.6	9982.9	1748.6	9984.3	1732.9	9984.4	1732.9	10015.6	1748.6	10015.7	
GR1748.6	10017.1	1732.9	10017.2	1732.9	10048.4	1748.6	10048.5	1748.6	10049.9	
GR1732.9	10050	1748.6	10085	1750.7	10225	1752.0	10275	1752.0	14055	
GR1756.0	15285	1760.0	17630	1770.0	18935					
K1 5.224	38	9915	10085	98	98	98				
BT 4	9705	1749.5	1749.5	9915	1750.2	1748.6	10085	1749.9	1748.6	
BT 10225	1750.7	1750.7								
GR1772.0	1950	1768.0	2215	1764.0	2545	1760.0	2950	1756.0	3285	
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675	
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1748.6	9915	
GR1733.1	9948	1748.6	9949.1	1748.6	9953.5	1733.1	9953.6	1733.1	9980.8	
GR1748.6	9980.9	1748.6	9986.3	1733.1	9986.4	1733.1	10013.6	1748.6	10013.7	
GR1748.6	10019.1	1733.1	10019.2	1733.1	10046.4	1748.6	10046.4	1748.6	10051.9	
GR1733.1	10052	1748.6	10085	1750.7	10225	1752.0	10275	1752.0	14055	
GR1756.0	15285	1760.0	17630	1770.0	18935					
K1 5.225	24	9915	10085	1	1	1				
GR1772.0	1950	1768.0	2215	1764.0	2545	1760.0	2950	1756.0	3285	
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675	
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1750.2	9915	
GR1733.1	9948	1733.1	10052	1749.9	10085	1750.7	10225	1752.0	10275	
GR1752.0	14055	1756.0	15285	1760.0	17630	1770.0	18935			
NH 10	0.040	2530	0.100	3430	0.040	3725	0.130	6415	0.045	
NH 9310	0.045	9905	0.035	10040	0.030	10470	0.130	17670	0.040	
NH 18830										
K1 5.24	32	9905	10040	60	60	60				
GR1772.0	2005	1768.0	2380	1764.0	2530	1760.0	2985	1756.0	3280	
GR1752.0	3430	1748.0	3445	1748.0	3515	1752.0	3530	1752.0	3725	
GR1748.0	5155	1748.0	6415	1748.0	7065	1752.0	9310	1754.5	9803	
GR1751.8	9826	1751.9	9875	1751.5	9905	1733.1	9937	1733.3	9978	
GR1734.7	9988	1733.3	9997	1733.3	10002	1736.9	10017	1738.3	10029	
GR1751.8	10040	1754.7	10071	1752.0	10470	1752.0	13825	1756.0	15240	

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GR1760.0   17670   1770.0   18830
NC                    0.1      0.3
NH       5  0.045     3110    0.130     8140    0.040     9916    0.035    10051    0.130
NH   18390
K1    5.46       36     9916    10051     1198     1198     1198
GR1776.0     2110  1772.0     2325  1758.0     2540  1764.0     2980  1760.0     3040
GR1760.0     3110  1760.0     3235  1756.0     3885  1756.0     5415  1752.0     6005
GR1752.0     6970  1756.0     8140  1756.0     9205  1757.8     9459  1756.6     9628
GR1755.6     9684  1757.1     9788  1756.2     9916  1741.7     9949  1741.5     9975
GR1741.4     9995  1741.4    10005  1743.4    10023  1748.9    10034  1748.9    10046
GR1758.0    10051  1759.7    10088  1758.8    10131  1757.5    10151  1758.6    10156
GR1758.9    10191  1756.0    11870  1756.0    13430  1760.0    14710  1760.0    16520
GR1770.0    18390
NC   0.025  0.025    0.025
NH       9  0.045     2785    0.120     4110    0.045     8635    0.080     9540    0.040
NH    9930  0.025    10071    0.130    10430    0.040    10990    0.120    17865
K1    5.75       31     9930    10071     1532     1532     1532
GR1772.0     2445  1768.0     2785  1764.0     4110  1760.0     5145  1760.0     8635
GR1764.0     9540  1764.8     9605  1763.8     9717  1762.6     9821  1762.8     9910
GR1758.6     9930  1744.8     9959  1744.8     9972  1744.8    10028  1744.8    10039
GR1745.0    10041  1763.8    10071  1765.2    10102  1765.3    10169  1765.4    10247
GR1765.8    10344  1763.6    10368  1764.8    10376  1763.8    10430  1764.0    10465
GR1764.0    10815  1760.5    10990  1750.0    14820  1764.0    15135  1764.0    16295
GR1770.0    17865
K1    5.78                             150      150      150
NC                    0.3      0.5
NH       7  0.100     3790    0.040     8475    0.100     9725    0.040     9911    0.025
NH   10091  0.040    10915    0.130    17605
K1   5.794       22     9911    10091       50      150       70
GR1776.0     1580  1772.0     2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0     5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4   1745.7  9945.6   1745.7  10054.5  1762.5  10087.6
GR1763.5    10091  1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130
GR1768.0    16295  1770.0    17605
K1   5.795       36     9911    10091        1        1        1
BT       7     9725  1764.0  1764.0     9911  1764.4  1764.4  9912.4  1764.4  1762.5
BT9983.5  1764.4  1762.5  10087.6  1764.4  1762.5    10091  1763.5  1763.5    10256
BT1764.2  1764.2
GR1776.0     1580  1772.0     2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0     5315  1760.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5     9912.4  1745.7  9947.6  1762.5  9947.7  1762.5  9948.9
GR1745.7  9949.0  1745.7  9982.1  1762.5  9982.2  1762.5  9983.4  1745.7  9983.5
GR1745.7 10016.6  1762.5 10016.7  1762.5 10017.9  1745.7 10018.0  1745.7 10051.1
GR1762.5 10051.2  1762.5 10052.4  1745.7 10052.5  1762.5 10087.6  1763.5    10091
GR1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130  1768.0    16295
GR1770.0    17605
K1   5.813       36     9911    10091       98       98       98
BT       7     9725  1764.0  1764.0     9911  1764.4  1764.4  9912.4  1764.4  1762.5
BT9985.5  1764.4  1762.5  10087.6  1764.4  1762.5    10091  1763.5  1763.5    10256
BT1764.2  1764.2
GR1776.0     1580  1772.0     2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0     5315  1760.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5     9912.4  1745.9  9945.6  1762.5  9945.7  1762.5  9950.9
GR1745.9  9951.0  1745.9  9980.1  1762.5  9980.2  1762.5  9985.4  1745.9  9985.5
GR1745.9 10014.6  1762.5 10014.7  1752.5 10019.9  1745.9 10020.0  1745.9 10049.1
GR1762.5 10049.2  1762.5 10054.4  1745.9 10054.5  1762.5 10087.6  1763.5    10091
GR1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130  1768.0    16295
GR1770.0    17605
K1   5.814       22     9911    10091        1        1        1
GR1776.0     1580  1772.0     2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0     5315  1760.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5     9912.4  1745.9  9945.6  1745.9  10054.5  1762.5  10087.6
GR1763.5    10091  1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130
GR1768.0    16295  1770.0    17605
NH       7  0.130     3750    0.045     3360    0.100     9605    0.05      9913    0.032
NH   10069  0.040    10430    0.130    17560
K1    5.82       30     9913    10069       30       30
GR1776.0     1480  1772.0     2280  1768.0     2765  1768.0     3750  1764.0     4200
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GR1764.0	4650	1760.0	5405	1760.0	6855	1763.2	8360	1764.0	9605
GR1762.5	9753	1761.2	9821	1753.8	9857	1761.4	9883	1760.3	9897
GR1760.7	9913	1748.4	9941	1750.0	9953	1749.4	9966	1747.6	9973
GR1747.5	10027	1760.1	10069	1759.3	10083	1760.2	10112	1761.4	10148
GR1760.3	10182	1764.0	10430	1764.3	15750	1768.0	16250	1770.0	17560
NC			0.1	0.3					
NH 7	0.130	5985	0.040	7995	0.100	9841	0.050	9913	0.032
NH 10869	0.050	15015	0.130	17710					
X1 5.96	26	9913	10069	750	550	730			
GR1776.0	1875	1772.0	2370	1768.0	3700	1764.0	5985	1764.0	7995
GR1764.0	9600	1764.5	9841	1764.5	9888	1761.8	9897	1759.7	9913
GR1751.8	9941	1752.0	9953	1752.0	9966	1749.4	9973	1749.4	10027
GR1762.4	10069	1761.8	10083	1762.4	10112	1763.7	10148	1762.4	10182
GR1764.1	10289	1768.0	10455	1768.0	15015	1768.0	16445	1770.0	16960
GR1775.0	17710								
QT 1	5900								
NH 7	0.100	9698	0.040	9939	0.032	10054	0.040	13800	0.100
NH 14580	0.040	15590	0.130	17505					
X1 6.16	48	9939	10054	1056	1056	1056			
GR1780.0	1375	1776.0	2245	1772.0	3025	1768.0	9030	1768.1	9698
GR1768.1	9728	1764.7	9756	1765.1	9763	1769.1	9786	1766.9	9809
GR1766.9	9845	1766.7	9878	1761.5	9892	1767.3	9911	1763.0	9939
GR1755.1	9962	1751.8	9989	1751.8	10011	1760.7	10044	1764.9	10054
GR1764.9	10072	1765.8	10077	1765.7	10090	1764.9	10098	1765.7	10102
GR1767.5	10111	1766.9	10147	1766.3	10164	1766.6	10174	1766.5	10208
GR1766.5	10228	1766.5	10267	1764.9	10286	1764.7	10315	1765.3	10352
GR1767.6	10374	1768.3	10401	1766.5	10440	1767.7	10441	1768.0	10550
GR1768.0	11200	1772.0	11545	1772.0	13800	1772.0	14580	1772.0	15590
GR1772.0	16400	1776.0	17255	1780.0	17505				
NH 8	0.090	7425	0.130	9676	0.040	9949	0.045	10057	0.040
NH 10339	0.100	12245	0.040	13590	0.130	17275			
X1 6.35	28	9949	10057	1100	950	1004			
GR1784.0	1180	1780.0	1770	1776.0	3005	1776.0	7425	1776.0	9020
GR1772.4	9676	1772.4	9743	1772.8	9870	1771.8	9949	1762.9	9968
GR1760.4	9981	1760.2	9992	1760.2	10008	1760.3	10019	1760.3	10027
GR1760.4	10032	1766.1	10045	1771.8	10057	1772.4	10084	1771.6	10099
GR1771.6	10125	1772.8	10172	1774.9	10339	1775.5	12245	1776.0	13590
GR1776.0	15835	1776.0	16795	1780.0	17275				
NH 6	0.090	8115	0.130	9946	0.045	10057	0.100	11980	0.040
NH 16070	0.130	18375							
X1 6.40	34	9946	10057	300	270	292			
X3			9862	1775.1	10128	1774.0			
GR1784.0	1215	1780.0	2265	1776.0	6430	1776.0	8115	1776.0	9640
GR1775.6	9710	1773.9	9772	1773.9	9799	1773.6	9810	1775.1	9862
GR1775.0	9946	1767.1	9964	1767.1	9983	1766.4	9991	1766.4	9995
GR1766.4	10009	1770.2	10033	1773.3	10057	1773.0	10073	1772.7	10087
GR1774.0	10128	1772.6	10143	1772.5	10183	1772.6	10224	1766.6	10239
GR1766.6	10247	1774.1	10268	1776.2	10297	1776.0	10850	1776.0	11980
GR1776.0	13470	1778.9	16070	1780.0	17095	1784.0	18375		
NH 7	0.090	8865	0.100	9932	0.045	10035	0.045	10610	0.100
NH 11340	0.045	15790	0.130	18305					
X1 6.57	29	9932	10035	920	500	856			
X3 10									
GR1788.0	35	1784.0	1250	1780.0	4925	1780.0	8865	1777.8	9808
GR1777.8	9828	1778.8	9854	1781.6	9932	1770.6	9945	1769.3	9972
GR1769.3	9982	1768.5	9991	1768.5	10009	1773.3	10020	1773.3	10032
GR1781.6	10035	1778.6	10061	1777.5	10085	1779.6	10129	1779.6	10224
GR1776.8	10433	1776.0	10475	1776.0	10610	1780.0	11340	1780.0	15790
GR1780.0	17135	1784.0	17805	1788.0	18025	1790.0	18305		
NH 9	0.130	4690	0.100	13425	0.130	14809	0.030	14942	0.035
NH 15039	0.045	16195	0.100	16755	0.045	21140	0.130	22860	
X1 6.71	42	14942	15039	650	450	780			
X3			14942	1784.8	15039	1784.8			
GR1796.0	2680	1792.0	3960	1792.0	4690	1784.0	8200	1784.0	12020
GR1784.0	13425	1780.0	14065	1780.0	14680	1777.4	14809	1777.6	14835
GR1778.5	14910	1779.0	14914	1784.8	14942	1773.0	14956	1769.3	14987
GR1769.3	14997	1769.3	15012	1771.9	15025	1784.8	15039	1781.9	15040
GR1781.9	15071	1781.0	15110	1781.3	15136	1781.2	15150	1781.2	15167

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SR1780.0   15195   1782.1   15222   1782.1   15298   1781.8   15387   1779.8   15404
SR1779.8   15461   1781.6   15472   1781.0   15531   1780.0   15640   1780.0   15710
SR1782.0   16195   1782.0   16755   1784.0   21140   1784.0   21860   1788.0   22235
SR1792.0   22575   1796.0   22960
EJ


ER
EOF..
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SF
TN        ROB BREAKOUT UPSTREAM OF NELLIS AVE
NS      3   4.456     4.57        -1      .050      .002
NG      0  1738.0       60   1738.3       620    1738.8
EE

      57
    4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    4.42        Starting Discharge for 050 is reduced by 870 cfs to account
    4.42        for upstream breakouts which do not return to the channel
    4.42        concurrently with the peak channel flow.
    4.42        Centerline Station at 10000
   4.437        Centerline Station at 10000
   4.438        Centerline Station at 10000
   4.456        ****  Nellis Boulevard  ****
   4.456              1* Debris Loading
   4.456                Normal Bridge
   4.456        Centerline Station at 10000
   4.457        Centerline Station at 10000
    4.47        Centerline Station at 10000
    4.57        Centerline Station at 10000
    4.57        From 4.57 to 4.75, limit 050 expansion to Nellis on LOB and
    4.57        to 1:1 limits on ROB starting above 4.75.
    4.68        Centerline Station at 10000
   4.695        Centerline Station at 10000
   4.696        Centerline Station at 10000
   4.714        ****  Charleston Boulevard  ****
   4.714              2* Debris Loading
   4.714                Normal Bridge
   4.714        Centerline Station at 10000
   4.715        Centerline Station at 10000
    4.72        Centerline Station at 10000
    4.75        Centerline Station at 10000
    4.94        Centerline Station at 10000
    5.18        Centerline Station at 10000
   5.205        Centerline Station at 10000
   5.206        Centerline Station at 10000
   5.224        ****  Stewart Avenue  ****
   5.224              2* Debris Loading
   5.224                Normal Bridge
   5.224        Centerline Station at 10000
   5.225        Centerline Station at 10000
    5.24        Centerline Station at 10000
    5.46        Centerline Station at 10000
    5.75        Centerline Station at 10000
    5.78        Centerline Station at 10000
   5.794        Centerline Station at 10000
   5.795        Centerline Station at 10000
   5.813        ****  Bonanza Avenue  ****
   5.813              2* Debris Loading
   5.813                Normal Bridge
   5.813        Centerline Station at 10000
   5.814        Centerline Station at 10000
    5.82        Centerline Station at 10000
    5.96        Centerline Station at 10000
    6.16        Centerline Station at 10000
    6.35        Centerline Station at 10000
    6.40        Upstream of confluence with Washington Ave Channel.
    6.40        ROB breakouts from upstream return at downstream xsec.
    6.40        Centerline Station at 10000
    6.57        Centerline Station at 10000
    6.71        Centerline Station at 15000
    6.71        Upstream of this xsec, 70% of LOB breakout from Reach 4
    6.71        returns to channel concurrently with channel peak Q.
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T1          CCR-CO/CDE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR (Middle Reach)                                                  12/87      SRM
J1              2                                                                                    1735.9
J2    -1                -1
J3   150
NC 0.050    0.027  0.0450      0.1       0.3
QT     1    13130
NH     5    0.045    3880    0.130      8050    0.050     9935   0.045    10132   0.100
NH 15890
X1  4.42       27    9935    10132       992      992      992
X3    10
GR1748.0     2045  1744.0     2335    1740.0     3060   1740.0     3515  1736.0     3675
GR1736.0     3880  1736.0     6450    1736.5     8050   1739.7     9731  1739.7     9794
GR1737.4     9813  1737.0     9935    1724.9     9956   1724.8    10000  1724.2    10052
GR1732.3    10072  1735.4    10095    1737.5    10132   1737.6    10179  1738.0    10236
GR1736.0    10750  1735.6    11580    1736.0    12365   1740.0    13440  1744.0    14870
GR1744.0    15580  1748.0    15890
NC                    0.3       0.5
NH     5    0.045    3896    0.130      8066    0.050     9933   0.045    10067   0.100
NH 15905
ET              6.1                                     9747     10251
X1 4.437       24    9933    10067        90        90       90
X3    10
GR1748.0     2061  1744.0     2351    1740.0     3076   1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466    1736.5     8066   1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953    1724.0    10047   1736.0    10067  1737.6    10147
GR1737.6    10194  1738.0    10251    1736.0    10765   1735.6    11595  1736.0    12380
GR1740.0    13455  1744.0    14885    1744.0    15515   1748.0    15905
ET              6.1                                     9747     10251
X1 4.438       38    9933    10067         1         1        1
X3    10
BT     7    9747  1739.7  1739.7     9827  1737.5  1735.5     9933  1737.5  1736.0
BT 10067  1737.5  1736.0    10147  1737.6  1737.6    10194  1737.6  1737.6    10251
BT1738.0  1738.0
GR1748.0     2061  1744.0     2351    1740.0     3076   1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466    1736.5     8066   1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9954    1736.0   9954.1   1736.0     9956  1724.0   9956.1
GR1724.0     9984  1736.0   9984.1    1736.0     9986   1724.0   9986.1  1724.0    10014
GR1736.0  10014.1  1736.0    10016    1724.0  10016.1   1724.0    10044  1736.0  10044.1
GR1736.0    10046  1724.0  10046.1    1736.0    10067   1737.6    10147  1737.6    10194
GR1738.0    10251  1736.0    10765    1735.6    11595   1736.0    12380  1740.0    13455
GR1744.0    14885  1744.0    15515    1748.0    15905
ET              6.1                                     9747     10251
X1 4.456       38    9933    10067        98        98       98
X3    10
BT     7    9747  1739.7  1739.7     9827  1737.5  1735.5     9933  1737.5  1736.0
BT 10067  1737.5  1736.0    10147  1737.6  1737.6    10194  1737.6  1737.6    10251
BT1738.0  1739.0
GR1748.0     2061  1744.0     2351    1740.0     3076   1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466    1736.5     8066   1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953    1736.0   9953.1   1736.0     9957  1724.0   9957.1
GR1724.0     9983  1736.0   9983.1    1736.0     9987   1724.0   9987.1  1724.0    10013
GR1736.0  10013.1  1736.0    10017    1724.0  10017.1   1724.0    10043  1736.0  10043.1
GR1736.0    10047  1724.0  10047.1    1736.0    10067   1737.6    10147  1737.6    10194
GR1738.0    10251  1736.0    10765    1735.5    11595   1736.0    12380  1740.0    13455
GR1744.0    14885  1744.0    15515    1748.0    15905
ET              6.1                                     9747     10251
X1 4.457       24    9933    10067         1         1        1
X2
X3    10
GR1748.0     2061  1744.0     2351    1740.0     3076   1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466    1736.5     8066   1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953    1724.0    10047   1736.0    10067  1737.6    10147
GR1737.6    10194  1738.0    10251    1736.0    10765   1735.6    11595  1736.0    12380
GR1740.0    13455  1744.0    14885    1744.0    15515   1748.0    15905
QT     1    12130
NH     6    0.045    3730    0.130      8295    0.050     9966   0.045    10097   0.050
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NH 11360    0.100     15640
ET              6.1                                  9740     10072
X1   4.47        41      9919     10050          60      60        60
X3     10
GR1752.0      1595    1748.0      2035    1744.0      2425    1740.0      2805    1740.0      2515
GR1740.0      3730    1736.0      3745    1736.0      3840    1740.0      4015    1740.0      5405
GR1736.0      6015    1736.0      6200    1737.2      8295    1739.2      9740    1738.8      9851
GR1737.3      9875    1739.1      9903    1736.9      9919    1725.6      9942    1725.6      9963
GR1727.1      9978    1724.8      9989    1724.3     10010    1728.9     10012    1728.1     10025
GR1733.8     10029    1737.5     10040    1738.8     10050    1738.8     10072    1737.1     10078
GR1737.7     10230    1737.1     10310    1738.4     10373    1739.4     10392    1737.3     10397
GR1738.4     10434    1736.0     11360    1740.0     12920    1744.0     13910    1748.0     14620
GR1752.0     15640
VC                                0.1       0.3
NH       6   0.045       3365    0.130       8820    0.050       9470    0.065       9914    0.055
NH 10061     0.070     10493     0.100     15515
ET              6.1                                  9470     10403
X1   4.57        43      9914     10061        350       800       562
X3     10
GR1756.0      1380    1752.0      1575    1748.0      2055    1744.0      2675    1740.0      2690
GR1740.0      2770    1744.0      2780    1744.0      3365    1740.0      4025    1740.0      5560
GR1738.0      6140    1740.0      6990    1740.0      8820    1740.0      9470    1740.5      9751
GR1738.8      9862    1737.3      9886    1739.1      9914    1736.9      9930    1725.6      9953
GR1725.6      9974    1727.1      9989    1725.0     10000    1725.8     10021    1728.9     10023
GR1728.1     10036    1733.8     10040    1737.5     10051    1738.8     10061    1738.8     10083
GR1737.1     10089    1737.7     10241    1737.1     10321    1739.4     10384    1739.4     10403
GR1737.3     10408    1738.4     10445    1740.5     10493    1740.0     11925    1744.0     13145
GR1748.0     14000    1752.0     14575    1756.0     15515
NH       5   0.130       1580    0.045       3635    0.130       9935    0.050      10050    0.100
NH 16450
ET              6.1                                  9320     10600
X1   4.68        28      9935     10065        350       550       540
X3     10
GR1760.0      1210    1756.0      1580    1752.0      1775    1748.0      2215    1744.0      2755
GR1740.0      2770    1740.0      2955    1744.0      2865    1744.0      3635    1740.0      4355
GR1740.0      9320    1740.0      9935    1725.6      9942    1725.6      9963    1727.1      9978
GR1725.2      9989    1725.2     10010    1728.9     10012    1728.1     10025    1733.8     10029
GR1737.5     10040    1738.8     10050    1740.0     10065    1744.0     13035    1749.0     13975
GR1752.0     14925    1756.0     15500    1760.0     16450
NC                                0.3       0.5
NH       5   0.130       1659    0.045       3714    0.130       9913    0.050      10087    0.100
NH 16494
ET              6.1                                  9399     10300
X1  4.695        23      9913     10087        100       100       100
X3     10
GR1760.0      1289    1756.0      1659    1752.0      1854    1748.0      2294    1744.0      2834
GR1740.0      2849    1740.0      2934    1744.0      2944    1744.0      3714    1740.0      4434
GR1740.0      9399    1740.9      9661    1740.3      9913    1733.0    9913.2    1725.6    9927.9
GR1725.6  10172.2     1733.0  10086.8     1740.5     10087    1744.0     13079    1748.0     14019
GR1752.0     14969    1756.0     15544    1760.0     16494
ET              6.1                                  9399     10300
X1   4.696        37      9913     10087          1         1         1
X3     10
BT       6      9661    1740.9    1740.9      9913    1740.3    1740.3    9913.2    1740.5    1733.0
BT9913.2     1740.5    1733.0  10086.8     1740.5    1733.0     10087    1740.5    1740.5
GR1760.0      1289    1756.0      1659    1752.0      1854    1748.0      2294    1744.0      2834
GR1740.0      2849    1740.0      2934    1744.0      2944    1744.0      3714    1740.0      4434
GR1740.0      9399    1740.9      9661    1740.3      9913    1733.0    9913.2    1725.6    9927.9
GR1733.0      9930    1733.0    9931.5    1725.6    9931.6    1725.6    9976.2    1733.0    9976.3
GR1733.0    9977.7    1725.6    9977.8    1725.6   10022.4    1733.0   10022.5    1733.0   10023.9
GR1725.6     10024    1725.6  10068.6     1733.0  10068.7    1733.0   10070.1    1725.6   10070.2
GR1733.0  10086.8     1740.0     10087    1744.0     13079    1748.0     14019    1752.0     14569
GR1756.0     15544    1760.0     16494
ET              6.1                                  9399     10200
X1   4.714        37      9913     10087         98        98        98
X3     10
X4       1    1744.0     10200
BT       6      9661    1740.9    1740.9      9913    1740.3    1740.3    9913.2    1740.5    1733.0
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319913.2	1740.5	1733.0	10086.8	1740.5	1733.0	10087	1740.5	1740.5	
GR1760.0	1289	1756.0	1659	1752.0	1854	1748.0	2294	1744.0	2834
GR1740.0	2849	1740.0	2934	1744.0	2944	1744.0	3714	1740.0	4434
GR1740.0	9399	1740.9	9661	1740.3	9913	1733.0	9913.2	1725.6	9927.9
GR1733.0	9928	1733.0	9933.5	1725.6	9933.6	1725.6	9974.2	1733.0	9974.2
GR1733.0	9979.7	1725.6	9979.8	1725.6	10020.4	1733.0	10020.5	1733.0	10025.9
GR1725.6	10026	1725.6	10066.6	1733.0	10066.7	1733.0	10072.1	1725.6	10072.2
GR1733.0	10086.8	1740.0	10087	1744.0	13079	1748.0	14019	1752.0	14969
GR1756.0	15544	1760.0	16494						
ET	6.1				9399	10200			
K1 4.715	23	9913	10087	1	1	1			
K3 10							1740.5	1740.5	
X4 1	1744.0	10200							
GR1760.0	1289	1756.0	1659	1752.0	1854	1748.0	2294	1744.0	2834
GR1740.0	2849	1740.0	2934	1744.0	2944	1744.0	3714	1740.0	4434
GR1740.0	9399	1740.9	9661	1740.3	9913	1733.0	9913.2	1725.6	9927.9
GR1725.6	10172.2	1733.0	10086.8	1740.5	10087	1744.0	13079	1748.0	14019
GR1752.0	14969	1756.0	15544	1760.0	16494				
NH 8	0.130	1810	0.045	3880	0.130	8875	0.040	9954	0.035
NH 10096	0.100	14690	0.045	15375	0.130	16450			
ET	6.1				9300	10240			
K1 4.72	35	9954	10096	50	50	50			
K3 10									
GR1760.0	1420	1756.0	1810	1752.0	1995	1748.0	2455	1744.0	2935
GR1740.0	2950	1740.0	3035	1744.0	3050	1744.0	3880	1740.0	4875
GR1740.0	6390	1744.0	7295	1744.0	8875	1742.3	9833	1741.9	9954
GR1729.6	9976	1729.2	9988	1728.3	9995	1728.3	10004	1728.9	10012
GR1729.6	10028	1729.9	10055	1732.6	10062	1733.0	10079	1734.7	10082
GR1743.5	10095	1743.9	10137	1744.0	10240	1744.0	11760	1742.9	12510
GR1744.0	13400	1748.0	14690	1752.0	15375	1756.0	15925	1760.0	16450
NC			0.1	0.3					
ET	6.1				9300	10240			
K1 4.75				150	150	150			
K3 10									
NH 8	0.130	3095	0.045	3280	0.100	7641	0.045	9897	0.035
NH 10059	0.130	13550	0.040	15455	0.130	17025			
X1 4.94	32	9897	10059	750	965	965			
X3 10									
GR1760.0	1720	1756.0	1875	1756.0	2530	1752.0	2690	1748.0	3095
GR1744.0	3196	1744.0	3280	1744.0	7641	1746.6	9781	1746.3	9889
GR1745.6	9897	1745.6	9912	1730.5	9944	1730.6	9953	1730.6	9982
GR1730.1	10000	1731.9	10014	1734.3	10035	1747.9	10059	1748.7	10097
GR1748.7	10142	1748.0	10160	1744.0	10195	1744.0	11245	1748.0	11520
GR1744.0	13550	1748.0	14300	1752.0	15140	1752.0	15755	1756.0	15865
GR1756.0	16455	1760.0	17025						
NH 8	0.130	3500	0.045	3575	0.130	5425	0.045	9330	0.065
NH 9905	0.035	10040	0.130	17355	0.040	18900			
X1 5.18	29	9905	10040	1100	1277	1277			
X3 10									
GR1768.0	2100	1764.0	2520	1750.0	2820	1756.0	3255	1748.0	3500
GR1748.0	3555	1752.0	3575	1752.0	4030	1748.0	4155	1748.0	5425
GR1748.0	9330	1753.5	9803	1750.8	9826	1750.9	9875	1750.5	9905
GR1732.1	9937	1732.3	9978	1733.7	9988	1732.3	9997	1732.3	10002
GR1735.9	10017	1737.3	10029	1750.8	10040	1753.7	10071	1752.0	10200
GR1752.0	14975	1756.0	15780	1760.0	17355	1770.0	18900		
NC			0.3	0.5					
NH 9	0.040	2545	0.130	3465	0.040	3675	0.130	5910	0.045
NH 9160	0.045	9915	0.035	10085	0.130	17630	0.040	18935	
X1 5.205	24	9915	10085	150	150	150			
X3 10									
GR1772.0	1950	1768.0	2215	1754.0	2545	1760.0	2950	1756.0	3285
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1750.2	9915
GR1732.9	9948	1732.9	10052	1749.9	10085	1750.7	10225	1752.0	10275
GR1752.0	14055	1756.0	15285	1760.0	17630	1770.0	18935		
X1 5.206	38	9915	10085	1	1	1			
X3 10									
BT 4	9705	1749.5	1749.5	9915	1750.2	1748.6	10085	1749.9	1748.6

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BT 10225  1750.7  1750.7
GR1772.0     1950  1768.0     2215  1754.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1748.0     3490  1748.0     3555  1752.0     3570  1752.0     3675
GR1748.0     4320  1748.0     5910  1748.0     9160  1749.5     9705  1748.6     9915
GR1732.9     9950  1748.6     9950.1 1748.6    9951.5 1732.9     9951.6 1732.9    9982.8
GR1748.6     9982.9 1748.6    9984.3 1732.9    9984.4 1732.9    10015.6 1748.6   10015.7
GR1748.6    10017.1 1732.9   10017.2 1732.9   10048.4 1748.6    10048.5 1748.6   10049.9
GR1732.9    10050  1748.6    10085  1750.7    10225  1752.0     10275  1752.0    14055
GR1756.0    15285  1760.0    17630  1770.0    18935
K1  5.224      38     9915    10085       98       98       98
K3     10
BT      4     9915  1749.5  1749.5     9915  1750.2  1748.6    10085  1749.9  1748.6
BT 10225  1750.7  1750.7
GR1772.0     1950  1768.0     2215  1754.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1748.0     3490  1748.0     3555  1752.0     3570  1752.0     3675
GR1748.0     4320  1748.0     5910  1748.0     9160  1749.5     9705  1748.6     9915
GR1733.1     9948  1748.6     9948.1 1748.6    9953.5 1733.1     9953.6 1733.1    9980.8
GR1748.6     9980.9 1748.6    9986.3 1733.1    9986.4 1733.1    10013.6 1748.6   10013.7
GR1748.6    10019.1 1733.1   10019.2 1733.1   10046.4 1748.6    10046.4 1748.6   10051.9
GR1733.1    10052  1748.6    10085  1750.7    10225  1752.0     10275  1752.0    14055
GR1756.0    15285  1760.0    17630  1770.0    18935
K1  5.225      24     9915    10085        1        1        1
K3     10
GR1772.0     1950  1768.0     2215  1764.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1748.0     3490  1748.0     3555  1752.0     3570  1752.0     3675
GR1748.0     4320  1748.0     5910  1748.0     9160  1749.5     9705  1750.2     9915
GR1733.1     9948  1733.1    10052  1749.9    10085  1750.7    10225  1752.0    10275
GR1752.0    14055  1756.0    15285  1760.0    17630  1770.0    18935
VH     10   0.040     2530   0.100     3430   0.040     3725   0.130     6415   0.045
VH   9310   0.045     9905   0.035    10040   0.030    10470   0.130    17670   0.040
VH  18830
K1   5.24      32     9905    10040       60       60       60
K3     10
GR1772.0     2005  1768.0     2380  1754.0     2530  1760.0     2985  1756.0     3280
GR1752.0     3430  1748.0     3445  1748.0     3515  1752.0     3530  1752.0     3725
GR1748.0     5155  1748.0     6415  1748.0     7065  1752.0     9310  1754.5     9803
GR1751.8     9826  1751.9     9875  1751.5     9905  1733.1     9937  1733.3     9978
GR1734.7     9988  1733.3     9997  1733.3    10002  1736.9    10017  1738.3    10029
GR1751.8    10040  1754.7    10071  1752.0    10470  1752.0    13825  1756.0    15240
GR1760.0    17670  1770.0    18830
NC                        0.1       0.3
VH      5   0.045     3110   0.130     3140   0.040     9916   0.035    10051   0.130
VH  18390
K1   5.46      36     9916    10051     1198     1198     1198
K3     10
GR1776.0     2110  1772.0     2325  1758.0     2540  1764.0     2980  1760.0     3040
GR1760.0     3110  1760.0     3235  1756.0     3885  1756.0     5415  1752.0     6005
GR1752.0     6970  1756.0     9140  1756.0     9205  1757.8     9459  1756.6     9628
GR1755.6     9684  1757.1     9788  1756.2     9916  1741.7     9949  1741.5     9975
GR1741.4     9995  1741.4    10005  1743.4    10023  1748.9    10034  1748.9    10046
GR1758.0    10051  1759.7    10088  1758.8    10131  1757.5    10151  1758.6    10156
GR1758.9    10191  1756.0    11870  1756.0    13430  1760.0    14710  1760.0    16520
GR1770.0    18390
NC  0.025   0.025  0.025
VH      9   0.045     2785   0.120     4110   0.045     8635   0.080     9540   0.040
VH   9930   0.025    10071   0.130    10430   0.040    10990   0.120    17865
K1   5.75      31     9930    10071     1532     1532     1532
K3     10
GR1772.0     2445  1768.0     2785  1764.0     4110  1760.0     5145  1760.0     8635
GR1764.0     9540  1764.8     9605  1763.8     9717  1762.6     9821  1762.8     9910
GR1758.6     9930  1744.8     9959  1744.8     9972  1744.8    10028  1744.8    10039
GR1745.0    10041  1763.8    10071  1755.2    10102  1765.3    10169  1765.4    10247
GR1765.8    10344  1763.6    10368  1764.8    10376  1763.8    10430  1764.0    10465
GR1764.0    10815  1760.5    10990  1750.0    14820  1764.0    15135  1764.0    16295
GR1770.0    17865
K1   5.78                              150      150      150
K3     10
NC                        0.3       0.5
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NH       7   0.100     3790   0.040     9475   0.100     9725   0.040     9911   0.025
NH   10091   0.040    10915   0.130    17605
X1   5.794      22     9911   10091        50      150       70
X3      10
GR1775.0     1580   1772.0     2120   1772.0     2420   1768.0     2780   1768.0     3790
GR1764.0     4155   1760.0     5315   1760.0     6875   1762.2     8475   1764.0     9725
GR1764.4     9911   1762.5   9912.4   1745.7   9945.6   1745.7  10054.5   1762.5  10087.6
GR1763.5    10091   1764.2    10256   1754.0    10305   1764.0    10915   1764.0    16130
GR1768.0    16295   1770.0    17605
X1   5.795      36     9911   10091        1         1         1
X3      10
BT       7     9725   1764.0   1764.0     9911   1764.4   1764.4   9912.4   1766.0   1762.5
BT9983.5  1766.0   1762.5  10087.6   1766.0   1762.5    10091   1763.5   1763.5    10256
BT1764.2  1764.2
GR1776.0     1580   1772.0     2120   1772.0     2420   1768.0     2780   1768.0     3790
GR1764.0     4155   1760.0     5315   1760.0     6875   1762.2     8475   1764.0     9725
GR1764.4     9911   1762.5   9912.4   1745.7   9947.6   1762.5   9947.7   1762.5   9948.5
GR1745.7   9949.0   1745.7   9982.1   1752.5   9982.2   1762.5   9983.4   1745.7   9983.5
GR1745.7  10016.6   1762.5  10016.7   1752.5  10017.9   1745.7  10018.0   1745.7  10051.1
GR1762.5  10051.2   1762.5  10052.4   1745.7  10052.5   1762.5  10087.6   1763.5    10091
GR1764.2    10256   1764.0    10305   1764.0    10915   1764.0    16130   1768.0    16295
GR1770.0    17605
X1   5.813      36     9911   10091        98        98        98
X3      10
BT       7     9725   1764.0   1764.0     9911   1764.4   1764.4   9912.4   1766.0   1762.5
BT9985.5  1766.0   1762.5  10087.6   1766.0   1762.5    10091   1763.5   1763.5    10256
BT1764.2  1764.2
GR1776.0     1580   1772.0     2120   1772.0     2420   1768.0     2780   1768.0     3790
GR1764.0     4155   1760.0     5315   1760.0     6875   1762.2     8475   1764.0     9725
GR1764.4     9911   1762.5   9912.4   1745.9   9945.6   1762.5   9945.7   1762.5   9950.9
GR1745.9   9951.0   1745.9   9980.1   1762.5   9980.2   1762.5   9985.4   1745.9   9985.5
GR1745.9  10014.6   1762.5  10014.7   1752.5  10019.9   1745.9  10020.0   1745.9  10049.1
GR1762.5  10049.2   1762.5  10054.4   1745.9  10054.5   1762.5  10087.6   1763.5    10091
GR1764.2    10256   1764.0    10305   1764.0    10915   1764.0    16130   1768.0    16295
GR1770.0    17605
X1   5.814      22     9911   10091        1         1         1
X3      10
GR1776.0     1580   1772.0     2120   1772.0     2420   1768.0     2780   1768.0     3790
GR1764.0     4155   1760.0     5315   1760.0     6875   1762.2     8475   1764.0     9725
GR1764.4     9911   1762.5   9912.4   1745.9   9945.6   1745.9  10054.5   1762.5  10087.6
GR1763.5    10091   1764.2    10256   1764.0    10305   1764.0    10915   1764.0    16130
GR1768.0    16295   1770.0    17605
NH       7   0.130     3750   0.045     8360   0.100     9605    0.05     9913   0.032
NH   10069   0.040    10430   0.130    17560
X1    5.82      30     9913   10069        30        30        30
X3      10
GR1776.0     1430   1772.0     2280   1768.0     2765   1768.0     3750   1764.0     4200
GR1764.0     4650   1760.0     5405   1760.0     6855   1763.2     8360   1764.0     9605
GR1762.5     9753   1761.2     9821   1763.3     9857   1761.4     9883   1760.3     9897
GR1760.7     9913   1748.4     9941   1750.0     9953   1749.4     9966   1745.9     9973
GR1745.9    10027   1760.1    10069   1759.3    10083   1760.2    10112   1761.4    10148
GR1760.3    10182   1764.0    10430   1764.0    15750   1768.0    16260   1770.0    17560
NC                     0.1       0.3
NH       7   0.100     5985   0.040     7995   0.100     9841   0.050     9913   0.032
NH   10069   0.050    15015   0.130    17710
X1    5.96      26     9913   10069       750       650       730
X3      10
GR1776.0     1875   1772.0     2370   1768.0     3700   1764.0     5985   1764.0     7995
GR1764.0     9600   1764.5     9841   1764.5     9888   1761.8     9897   1759.7     9913
GR1751.8     9941   1752.0     9953   1752.0     9966   1749.4     9973   1749.4    10027
GR1762.4    10069   1761.8    10083   1762.4    10112   1763.7    10148   1762.4    10182
GR1764.1    10289   1768.0    10455   1768.0    15015   1768.0    16445   1770.0    16960
GR1775.0    17710
NH       7   0.100     9698   0.040     9939   0.032    10054   0.040    13800   0.100
NH   14580   0.040    15590   0.130    17505
X1    6.16      48     9939   10054       1056      1056      1056
X3      10
GR1780.0     1375   1776.0     2245   1772.0     3025   1768.0     9030   1768.1     9698
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GR1765.1     9723  1764.7     9756  1765.1     9763  1765.1     9786  1766.9     9809
GR1766.9     9845  1766.7     9878  1751.5     9892  1767.3     9911  1763.0     9939
GR1755.1     9952  1751.8     9989  1751.8    10011  1760.7    10044  1764.9    10054
GR1764.9    10072  1765.8    10077  1765.7    10090  1764.9    10098  1765.7    10102
GR1767.6    10111  1766.9    10147  1756.3    10164  1766.6    10174  1766.5    10208
GR1766.5    10228  1766.5    10267  1764.9    10286  1764.7    10315  1765.3    10352
GR1767.6    10374  1768.3    10401  1756.5    10440  1767.7    10441  1768.0    10550
GR1768.0    11200  1772.0    11545  1772.0    13800  1772.0    14580  1772.0    15590
GR1772.0    16400  1776.0    17255  1780.0    17505
VH      8    0.090     7425    0.130     9676    0.040     9949    0.045    10057    0.040
VH  10339    0.100    12245    0.040    13590    0.130    17275
K1   6.35       28     9949    10057     1100      950     1004
K3     10
GR1784.0     1130  1780.0     1770  1776.0     3005  1776.0     7425  1776.0     9020
GR1772.4     9676  1772.4     9743  1772.8     9870  1771.8     9949  1762.9     9968
GR1760.4     9981  1760.2     9992  1760.2    10008  1760.3    10019  1760.3    10027
GR1760.4    10032  1766.1    10045  1771.8    10057  1772.4    10084  1771.6    10099
GR1771.6    10125  1772.8    10172  1774.9    10339  1775.5    12245  1776.0    13590
GR1776.0    15835  1776.0    16795  1780.0    17275
QT      1    11760
VH      6    0.090     8115    0.130     9946    0.045    10057    0.100    11980    0.040
VH  16070    0.130    18375
ET           6.1                              9862    10297
K1   6.40       34     9946    10057      300      270      292
K3     10
GR1784.0     1215  1780.0     2265  1776.0     6430  1776.0     8115  1776.0     9640
GR1775.6     9718  1773.9     9772  1773.9     9799  1773.6     9810  1775.1     9862
GR1775.0     9946  1767.1     9964  1767.1     9983  1766.4     9991  1766.4     9995
GR1766.4    10009  1770.2    10033  1773.3    10057  1773.0    10073  1772.7    10087
GR1774.0    10128  1772.6    10143  1772.6    10183  1772.6    10224  1766.6    10239
GR1766.6    10247  1774.1    10268  1776.2    10297  1776.0    10850  1776.0    11980
GR1776.0    13470  1778.9    16070  1780.0    17095  1784.0    18375
VH      7    0.090     8865    0.100     9932    0.045    10035    0.045    10610    0.100
VH  11340    0.045    15790    0.130    18305
K1   6.57       29     9932    10035      920      500      856
K3     10
GR1788.0       35  1784.0     1250  1780.0     4925  1790.0     8865  1777.8     9808
GR1777.8     9828  1778.8     9854  1781.6     9932  1770.6     9945  1769.3     9972
GR1769.3     9932  1768.5     9991  1768.5    10009  1773.3    10020  1773.3    10032
GR1781.6    10035  1778.6    10061  1777.5    10085  1779.6    10129  1779.6    10224
GR1776.8    10433  1776.0    10475  1776.0    10610  1780.0    11340  1780.0    15790
GR1780.0    17135  1784.0    17805  1788.0    18025  1790.0    18305
VH      9    0.130     4690    0.100    13425    0.130    14809    0.030    14942    0.035
VH  15039    0.045    16195    0.100    16755    0.045    21140    0.130    22860
K1   6.71       42    14942    15039      650      450      780
K3     10
K4      2  1790.0     5200  1785.0     5600
GR1796.0     2680  1792.0     3960  1792.0     4690  1784.0     8200  1784.0    12020
GR1784.0    13425  1780.0    14065  1780.0    14680  1777.4    14809  1777.6    14935
GR1778.5    14910  1779.0    14914  1784.3    14942  1773.0    14956  1769.3    14987
GR1769.3    14997  1769.3    15012  1771.9    15025  1784.8    15039  1781.9    15040
GR1781.9    15071  1781.0    15110  1781.3    15136  1781.2    15150  1781.2    15167
GR1780.0    15195  1782.1    15222  1782.1    15298  1781.8    15387  1779.8    15404
GR1779.8    15451  1781.6    15472  1781.0    15531  1780.0    15640  1780.0    15710
GR1782.0    16195  1782.0    16755  1784.0    21140  1784.0    21860  1788.0    22235
GR1792.0    22575  1796.0    22860
ED


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   6-MAY-88 TIME   16:31:23          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************


SPLIT FLOW BEING PERFORMED

SF

TN        ROB BREAKOUT UPSTREAM OF NELLIS AVE
NS      3   4.456     4.57        -1     .050     .002
NC      0  1738.0       60  1738.8       620  1738.8
```



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C
T1        CORPS/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 50-YEAR (Middle Reach)                    12/87     SRM

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     G          WSEL      FQ
       0.        2.        0.        0.  0.000000      0.00      0.0       0.  1735.900     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
     -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
```

	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NC	0.050	0.027	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	1.000	13130.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.050	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Starting Discharge for 950 is reduced by 870 cfs to account
for upstream breakouts which do not return to the channel
concurrently with the peak channel flow.
Centerline Station at 10000

X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9754.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.500	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10095.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3896.000	0.130	8066.000	0.050	9933.000	0.045	10067.000	0.100
NH	15905.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9747.000	10251.000	0.000	0.000	0.000

Centerline Station at 10030

X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

1

ET	0.000	6.100	0.000	0.000	0.000	9747.000	10251.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.438	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9954.000	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9984.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	9747.000	10251.000	0.000	0.000	0.000

**** Nellis Boulevard ****
1* Debris Loading
Normal Bridge

Centerline Station at 10000

X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1736.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000

GR	1736.000	10015.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9747.000	10251.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000
QT	1.000	12130.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10097.000	0.050
NH	11360.000	0.100	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9740.000	10072.000	0.000	0.000	0.000

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Centerline Station at 10000

X1	4.470	41.000	9919.000	10050.000	60.000	60.000	60.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1752.000	1595.000	1748.000	2035.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	6200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9903.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000	1738.800	10072.000	1737.100	10078.000
GR	1737.700	10230.000	1737.100	10310.000	1738.400	10373.000	1739.400	10392.000	1737.360	10397.000
GR	1738.400	10434.000	1736.000	11360.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000
GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	9914.000	0.055
NH	10061.000	0.070	10453.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9470.000	10403.000	0.000	0.000	0.000

Centerline Station at 10000
From 4.57 to 4.75, limit Q50 expansion to Nellis on LOB and
to 1:1 limits on R03 starting above 4.75.

X1	4.570	43.000	9914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1756.000	1380.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1738.300	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1738.800	9862.000	1737.300	9886.000	1739.100	9914.000	1736.900	9930.000	1725.600	9953.000
GR	1725.600	9974.000	1727.100	9989.000	1725.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.800	10040.000	1737.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	10089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384.000	1739.400	10403.000
GR	1737.300	10408.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1748.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10050.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9320.000	10600.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.580	28.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1210.000	1756.000	1580.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1740.000	2770.000	1740.000	2855.000	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000
GR	1740.000	9320.000	1740.000	9935.000	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000
GR	1725.200	9989.000	1725.200	10010.000	1728.900	10012.000	1728.100	10025.000	1733.800	10029.000
GR	1737.500	10040.000	1738.800	10050.000	1740.000	10065.000	1744.000	13035.000	1748.000	13975.000
GR	1752.000	14925.000	1756.000	15500.000	1760.000	16450.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10087.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9399.000	10300.000	0.000	0.000	0.000

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Centerline Station at 10000

X1	4.595	23.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9399.000	10300.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.596	37.000	9913.000	10987.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9930.000	1733.000	9931.500	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300
GR	1733.000	9977.700	1725.600	9977.800	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900
GR	1725.600	10024.000	1725.600	10068.600	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200
GR	1733.000	10086.800	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9399.000	10200.000	0.000	0.000	0.000

**** Charlesten Boulevard ****
2* Debris Loading
Normal Bridge

Centerline Station at 10000

X1	4.714	37.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9928.000	1733.000	9933.500	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200
GR	1733.000	9979.700	1725.600	9979.800	1725.600	10020.400	1733.000	10020.500	1733.000	10025.900
GR	1725.600	10026.000	1725.600	10066.600	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200
GR	1733.000	10086.800	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9399.000	10200.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.715	23.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1740.500	1740.500	0.000
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000

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NH	8.000	0.130	1910.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035

NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9300.000	10240.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.720	35.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000
GR	1740.000	2950.000	1740.000	3035.000	1744.000	3050.000	1744.000	3680.000	1740.000	4675.000
GR	1740.000	6390.000	1744.000	7295.000	1744.000	8875.000	1742.300	9833.000	1741.900	9954.000
GR	1729.500	9976.000	1729.200	9988.000	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000
GR	1729.500	10028.000	1729.900	10055.000	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000
GR	1743.500	10096.000	1743.900	10137.000	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000
GR	1744.000	13400.000	1748.000	14690.000	1752.000	15375.000	1756.000	15925.000	1760.000	16450.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9300.000	10240.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	3095.000	0.045	3280.000	0.100	7641.000	0.045	9897.000	0.035
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1720.000	1756.000	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9869.000
GR	1745.500	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000
GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000
GR	1744.000	13550.000	1748.000	14300.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	3500.000	0.045	3575.000	0.130	5425.000	0.045	9330.000	0.065
NH	9905.000	0.035	10040.000	0.130	17355.000	0.040	18900.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	5.180	29.000	9905.000	10040.000	1100.000	1277.000	1277.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1768.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1748.000	3500.000
GR	1748.000	3555.000	1752.000	3575.000	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000
GR	1748.000	9330.000	1753.500	9803.000	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000
GR	1732.100	9937.000	1732.300	9978.000	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000
GR	1735.900	10017.000	1737.300	10029.000	1750.800	10040.000	1753.700	10071.000	1752.000	10200.000
GR	1752.000	14875.000	1756.000	15780.000	1760.000	17355.000	1770.000	18900.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045
NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17630.000	0.040	18935.000	0.000

		Centerline Station at 10000								
X1	5.205	24.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1732.900	9948.000	1732.900	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
		Centerline Station at 10000								
X1	5.206	38.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.500	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000

GR	1732.900	9950.000	1748.600	9950.100	1748.600	9951.500	1732.900	9951.600	1732.900	9982.800
GR	1748.500	9982.900	1748.600	9984.300	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700
GR	1748.500	10017.100	1732.900	10017.200	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900
GR	1732.900	10050.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

****** Stewart Avenue ******
2* Debris Loading
Normal Bridge
Centerline Station at 10000

X1	5.224	38.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9515.000
GR	1733.100	9948.000	1748.600	9948.100	1748.600	9953.500	1733.100	9953.600	1733.100	9980.800
GR	1748.600	9980.900	1748.600	9986.300	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700
GR	1748.600	10019.100	1733.100	10019.200	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900
GR	1733.100	10052.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.225	24.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1733.100	9948.000	1733.100	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000

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NH	10.000	0.040	2530.000	0.100	3430.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.030	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.240	32.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	2005.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3430.000	1748.000	3445.000	1748.000	3515.000	1752.000	3530.000	1752.000	3725.000
GR	1748.000	5155.000	1748.000	6415.000	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000
GR	1751.300	9826.000	1751.900	9875.000	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000
GR	1734.700	9988.000	1733.300	9997.000	1733.300	10002.000	1736.900	10017.000	1738.300	10029.000
GR	1751.300	10040.000	1754.700	10071.000	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000
GR	1760.000	17670.000	1770.000	18830.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3110.000	0.130	8140.000	0.040	9516.000	0.035	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.460	36.000	9916.000	10051.000	1198.000	1198.000	1198.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2325.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000
GR	1760.000	3110.000	1760.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	8140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10005.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.300	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000
GR	1758.900	10191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	2785.000	0.120	4110.000	0.045	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000

Centerline Station at 10000

X1	5.750	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9605.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.500	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.300	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10368.000	1764.800	10376.000	1763.800	10430.000	1764.000	10465.000
GR	1764.000	10815.000	1760.500	10990.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17865.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.300	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10091.300	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000

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Centerline Station at 10000

X1	5.794	22.000	9911.000	10091.000	50.000	150.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	7.300	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9983.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9948.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**** Bonanza Avenue ****
2* Debris Loading
Normal Bridge

Centerline Station at 10000

X1	5.813	36.000	9911.000	10091.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	7.300	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9985.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1762.500	9945.700	1762.500	9950.900
GR	1745.900	9951.000	1745.901	9980.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500
GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.814	22.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000

GR	1764.000	4159.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000

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NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9605.000	0.050	9913.000	0.032
NH	10069.000	0.040	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	5.329	30.000	9913.000	10069.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4650.000	1760.000	5405.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.800	9857.000	1761.400	9883.000	1760.300	9857.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1749.400	9966.000	1745.900	9973.000
GR	1745.900	10027.000	1760.100	10069.000	1759.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7995.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	15015.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	5.960	26.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1875.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	5888.000	1761.800	9897.000	1759.700	9913.000
GR	1751.300	9941.000	1752.000	9953.000	1752.000	9966.000	1749.400	9973.000	1749.400	10027.000
GR	1762.400	10069.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	9698.000	0.040	9939.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	6.160	48.000	9939.000	10054.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1780.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1769.100	9786.000	1766.900	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1760.700	10044.000	1764.900	10054.000
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10228.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000
NH	8.000	0.090	7425.000	0.130	9676.000	0.040	9949.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1784.000	1180.000	1780.000	1770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.500	10125.000	1772.800	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000

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QT	1.000	11760.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.090	8115.000	0.130	9946.000	0.045	10057.000	0.100	11980.000	0.040

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NH   16070.000       0.130   18375.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       6.100       0.000       0.000       0.000    9862.000   10297.000       0.000       0.000       0.000
                Upstream of confluence with Washington Ave Channel.
                ROB breakouts from upstream return at downstream xsec.
                Centerline Station at 10000
X1       6.400      34.000    9946.000   10057.000     300.000     270.000     292.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
GR    1784.000    1215.000    1780.000    2265.000    1776.000    6430.000    1776.000    8115.000    1776.000    9640.000
GR    1775.600    9710.000    1773.900    9772.000    1773.900    9799.000    1773.600    9810.000    1775.100    9862.000
GR    1775.000    9946.000    1767.100    9964.000    1767.100    9983.000    1766.400    9991.000    1766.400    9995.000
GR    1764.400   10009.000    1770.200   10033.000    1773.300   10057.000    1773.000   10073.000    1772.700   10087.000
GR    1774.000   10128.000    1772.600   10143.000    1772.600   10183.000    1772.600   10224.000    1766.600   10239.000
GR    1766.500   10247.000    1774.100   10268.000    1776.200   10297.000    1776.000   10850.000    1776.000   11980.000
GR    1776.000   13470.000    1778.900   16070.000    1780.000   17095.000    1784.000   18375.000       0.000       0.000

NH       7.000       0.090    8865.000       0.100    9932.000       0.045   10035.000       0.045   10610.000       0.100
NH   11340.000       0.045   15790.000       0.130   18305.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1       6.570      29.000    9932.000   10035.000     920.000     500.000     856.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
GR    1788.000      35.000    1784.000    1250.000    1780.000    4925.000    1780.000    8865.000    1777.800    9808.000
GR    1777.800    9828.000    1778.800    9894.000    1781.600    9932.000    1770.600    9945.000    1769.300    9972.000
GR    1769.300    9982.000    1768.500    9991.000    1768.500   10009.000    1773.300   10020.000    1773.300   10032.000
GR    1781.500   10035.000    1778.600   10061.000    1777.500   10085.000    1779.600   10129.000    1779.600   10224.000
GR    1776.300   10433.000    1776.000   10475.000    1776.000   10610.000    1780.000   11340.000    1780.000   15790.000
GR    1780.000   17135.000    1784.000   17805.000    1788.000   18025.000    1790.000   18305.000       0.000       0.000

NH       9.000       0.130    4690.000       0.100   13425.000       0.130   14809.000       0.030   14942.000       0.035
NH   15039.000       0.045   16195.000       0.100   16755.000       0.045   21140.000       0.130   22860.000       0.000
                Centerline Station at 15000
                Upstream of this xsec, 70% of LOB breakout from Reach 4
                returns to channel concurrently with channel peak Q.
X1       6.710      42.000   14942.000   15039.000     650.000     450.000     780.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
X4       2.000    1790.000    5200.000    1785.000    5600.000       0.000       0.000       0.000       0.000       0.000
GR    1796.000    2680.000    1792.000    3960.000    1792.000    4690.000    1784.000    8200.000    1784.000   12020.000
GR    1784.000   13425.000    1780.000   14065.000    1780.000   14680.000    1777.400   14809.000    1777.600   14835.000
GR    1778.500   14910.000    1779.000   14914.000    1784.800   14942.000    1773.000   14956.000    1769.300   14987.000
GR    1769.300   14997.000    1769.300   15012.000    1771.900   15025.000    1784.800   15039.000    1781.900   15040.000
GR    1781.900   15071.000    1781.000   15110.000    1781.300   15136.000    1781.200   15150.000    1781.200   15167.000
GR    1780.100   15195.000    1782.100   15222.000    1782.100   15298.000    1781.800   15387.000    1779.800   15404.000
GR    1779.300   15461.000    1781.600   15472.000    1781.000   15531.000    1780.000   15640.000    1780.000   15710.000
GR    1782.000   16195.000    1782.000   16755.000    1784.000   21140.000    1784.000   21860.000    1788.000   22235.000
GR    1792.000   22575.000    1796.000   22860.000       0.000       0.000       0.000       0.000       0.000       0.000
EJ       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *PROF 1

 CCHV=   0.100  CEHV=   0.300
 1490 NH CARD USED
 *SECNO 4.420

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1737.00 ELREA=     1737.60

                SECNO=River Mileage (above Advance Wastewater Treatment Plant)
                Starting Discharge for 950 is reduced by 870 cfs to account
                for upstream breakouts which do not return to the channel
                concurrently with the peak channel flow.
                Centerline Station at 10000
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     4.42      11.79    1735.90      0.00    1735.90    1737.12      1.22       0.00       0.00    1737.00
    12263.        0.    12263.        3.        0.       1386.        0.         0.         0.    1737.60
        0.        0.        8.85      0.00      0.000      0.045      0.000      0.000   1724.20    9936.91
 0.004415       992.      992.       992.         3          0          0          0.00    166.50   10103.41

CCHV=   0.300  CEHV=   0.500
1490 NH CARD USED
*SECNO 4.437

3470 ENCROACHMENT STATIONS=    9747.0    10251.0  TYPE=      1  TARGET=      504.000
                Centerline Station at 10000
     4.44      12.31    1736.31      0.00    1736.31    1737.47      1.15       0.33       0.02    1736.00
    12263.       73.    12190.        1.       65.       1409.        2.         3.         0.    1736.00
        0.00      1.11      8.65      0.24      0.050      0.045      0.100      0.000   1724.00    9811.60
 0.003175        90.       90.       90.         3          0          0          0.00    270.82   10082.42

*SECNO 4.433

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

3470 ENCROACHMENT STATIONS=    9747.0    10251.0  TYPE=      1  TARGET=      504.000
                Centerline Station at 10000
     4.44      12.16    1736.16      0.00    1736.16    1737.63      1.47       0.01       0.16    1736.00
    12263.        0.    12263.        0.        0.       1261.        0.         3.         0.    1736.00
        0.00      0.00      9.73      0.00      0.050      0.045      0.100      0.000   1724.00    9814.39
 0.015982         1.        1.        1.         2          0          0        -70.17    260.70   10075.09

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    SECNO      DEPTH      QWSEL      QRIWS      WSELK      EG         HV         HL         QLOSS     BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TLA     LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IOC        ICONT      CORAR      TOPWID       ENDST


*SECNO 4.456

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

3470 ENCROACHMENT STATIONS=    9747.0    10251.0  TYPE=      1  TARGET=      504.000
                **** Nellis Boulevard ****
                1* Debris Loading
                   Normal Bridge
                Centerline Station at 10000
     4.46      14.16    1738.16      0.00    1738.16    1739.49      1.33       1.82       0.04    1736.00
    12263.      250.    11873.      140.       78.       1265.       96.         6.         1.    1736.00
        0.01      3.20      5.38      1.45      0.050      0.045      0.100      0.000   1724.00    9776.29
 0.021721        98.       98.       93.         5          0          0       -506.03    474.71   10251.00

*SECNO 4.457

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=    9747.0    10251.0  TYPE=      1  TARGET=      504.000
                Centerline Station at 10000
     4.46      15.22    1739.22      0.00    1739.22    1739.73      0.52       0.00       0.24    1736.00
    12263.     1041.    10946.      277.      499.       1799.      350.         6.         1.    1736.00
        0.01      2.09      6.09      0.79      0.050      0.045      0.100      0.000   1724.00    9756.24
 0.001135         1.        1.        1.         3          0          0          0.00    494.76   10251.00

1490 NH CARD USED
*SECNO 4.470
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5265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9743.0 10072.0 TYPE= 1 TARGET= 332.000
Centerline Station at 10000

4.47	14.25	1739.05	0.00	1739.05	1740.12	1.07	0.11	0.27	1736.90
11263.	114.	11145.	4.	74.	1336.	6.	9.	2.	1738.80
0.21	1.54	8.34	0.76	0.052	0.045	0.045	0.000	1724.80	9780.86
0.003388	60.	60.	60.	2	0	0	0.00	290.06	10072.30

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.570

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9473.0 10403.0 TYPE= 1 TARGET= 933.000
Centerline Station at 10000
From 4.57 to 4.75, limit 050 expansion to Nellis on LCE and
to 1:1 limits on ROB starting above 4.75.

4.57	16.18	1741.18	0.00	1741.18	1741.52	0.35	1.33	0.07	1739.10
12130.	759.	8899.	2472.	588.	1651.	1207.	42.	9.	1738.80
0.04	1.29	5.39	2.05	0.065	0.055	0.078	0.000	1725.00	9470.00
0.001705	350.	562.	800.	3	0	0	0.00	933.00	10403.00

1490 NH CARD USED
*SECNO 4.690

3470 ENCROACHMENT STATIONS= 9321.0 10600.0 TYPE= 1 TARGET= 1280.000
Centerline Station at 10000

4.68	16.77	1741.97	0.00	1741.97	1742.56	0.59	0.96	0.07	1740.00
12130.	965.	10385.	781.	1216.	1565.	865.	82.	21.	1740.00
0.07	0.79	6.64	0.30	0.130	0.100	0.100	0.000	1725.20	9320.00
0.001950	350.	540.	550.	2	0	0	0.00	1280.00	10600.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.695

3470 ENCROACHMENT STATIONS= 9399.0 10300.0 TYPE= 1 TARGET= 901.000
Centerline Station at 10000

4.70	16.91	1742.51	0.00	1742.51	1742.75	0.24	0.09	0.10	1740.30
12130.	417.	11507.	206.	1019.	2829.	401.	91.	23.	1740.50
0.08	0.41	4.07	0.51	0.130	0.050	0.100	0.000	1725.60	9399.00
0.000518	100.	100.	100.	2	0	0	0.00	901.00	10300.00

*SECNO 4.696

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

3470 ENCROACHMENT STATIONS= 9399.0 10300.0 TYPE= 1 TARGET= 901.000

Centerline Station at 13000

4.70	16.81	1742.41	0.00	1742.41	1742.85	0.45	0.00	0.10	1740.30
12130.	1891.	8860.	1379.	967.	1448.	482.	91.	23.	1740.00
3.08	1.95	6.12	2.85	0.130	0.050	0.100	0.000	1725.60	9399.00
0.012644	1.	1.	1.	2	0	0	-1303.50	901.00	10300.00

*SECNO 4.714

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

3470 ENCROACHMENT STATIONS= 9399.0 10200.0 TYPE= 1 TARGET= 801.000

**** Charleston Boulevard ****
2* Debris Loading
Normal Bridge

Centerline Station at 10000

4.71	17.95	1743.55	0.00	1743.55	1743.99	0.34	1.00	0.03	1740.30
12130.	3416.	8356.	353.	1558.	1544.	179.	98.	25.	1740.00
0.08	2.19	5.41	2.00	0.130	0.050	0.100	0.000	1725.60	9399.00
0.008458	98.	98.	98.	3	9	0	-1303.50	788.44	10187.44

*SECNO 4.715

3470 ENCROACHMENT STATIONS= 9399.0 10200.0 TYPE= 1 TARGET= 801.000

Centerline Station at 10000

4.72	18.14	1743.74	0.00	1743.74	1743.93	0.20	0.00	0.04	1740.30
12130.	807.	11255.	68.	1651.	3043.	169.	98.	25.	1740.50
0.08	0.49	3.70	0.40	0.130	0.050	0.100	0.000	1725.60	9399.00
0.000389	1.	1.	1.	2	0	0	0.00	792.47	10191.47

1490 NH CARD USED
*SECNO 4.720

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCR	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9303.0 10240.0 TYPE= 1 TARGET= 940.000

Centerline Station at 10000

4.72	15.21	1743.51	0.30	1743.51	1744.22	0.70	0.03	0.25	1741.90
12130.	656.	11474.	0.	567.	1659.	0.	102.	26.	1743.50
0.08	1.16	6.92	0.00	0.040	0.035	0.100	0.000	1728.30	9300.00
0.001066	50.	50.	50.	3	0	0	0.00	797.60	10097.60

CCHV= 0.100 CEHV= 0.300
*SECNO 4.750

3470 ENCROACHMENT STATIONS= 9303.0 10240.0 TYPE= 1 TARGET= 940.000

Centerline Station at 10000

4.75	15.50	1743.80	0.00	1743.80	1744.42	0.61	0.19	0.01	1741.90
12130.	993.	11134.	3.	756.	1700.	5.	111.	29.	1743.50

0.09	1.31	6.55	0.51	0.050	0.045	0.027	0.000	1728.30	9300.00
0.001530	150.	150.	150.	2	0	0	0.00	827.14	10127.14

1490 NH CARD USED
*SECNO 4.940

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1745.60 ELREA= 1747.90

Centerline Station at 10000

4.94	14.88	1744.98	0.00	1744.98	1745.90	0.92	1.39	0.09	1745.60
12130.	0.	12130.	0.	0.	1579.	0.	153.	38.	1747.90
0.13	0.00	7.68	0.00	0.089	0.035	0.027	0.000	1730.10	9913.32
0.001381	750.	965.	965.	3	0	0	0.00	140.53	10053.84

1490 NH CARD USED
*SECNO 5.180

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1750.50 ELREA= 1750.80

Centerline Station at 10000

5.18	14.65	1746.75	0.00	1746.75	1747.82	1.06	1.88	0.04	1750.50
12130.	0.	12130.	0.	0.	1465.	0.	198.	42.	1750.80
0.17	0.00	8.28	0.00	0.089	0.035	0.027	0.000	1732.10	9911.51
0.001571	1100.	1277.	1277.	2	0	0	0.00	125.19	10036.70

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.205

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1750.20 ELREA= 1749.90

Centerline Station at 10000

5.20	14.61	1747.51	0.00	1747.51	1748.12	0.61	0.17	0.14	1750.20
12130.	0.	12130.	0.	0.	1930.	0.	204.	42.	1749.90
0.18	0.00	6.29	0.00	0.089	0.035	0.027	0.000	1732.90	9920.13
0.000841	150.	150.	150.	2	0	0	0.00	160.22	10080.36

*SECNO 5.206

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.58 MAX ELLC= 1750.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1748.60 ELREA= 1748.60

Centerline Station at 10000

5.21	14.58	1747.48	0.00	1747.48	1748.15	0.67	0.00	0.03	1748.60
12130.	0.	12130.	0.	0.	1844.	0.	204.	42.	1748.60
0.18	0.00	6.58	0.00	0.089	0.035	0.027	0.000	1732.90	9917.50
0.001958	1.	1.	1.	2	0	0	0.00	159.35	10082.50

*SECNO 5.224

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1748.60 ELREA= 1748.60

**** Stewart Avenue ****
2* Debris Loading
Normal Bridge

Centerline Station at 10000

5.22	14.51	1747.61	0.00	1747.61	1748.47	0.85	0.22	0.09	1748.60
12130.	0.	12130.	0.	0.	1638.	0.	208.	43.	1748.60
0.18	0.00	7.41	0.00	0.089	0.035	0.027	0.000	1733.10	9917.10
0.002697	98.	98.	98.	2	0	0	0.00	144.06	10082.90

*SECNO 5.225

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1750.20 ELREA= 1749.90

Centerline Station at 10000

5.22	14.86	1747.96	0.00	1747.96	1748.55	0.59	0.00	0.08	1750.20
12130.	0.	12130.	0.	0.	1976.	0.	208.	43.	1749.90
0.18	0.00	6.14	0.00	0.089	0.035	0.027	0.000	1733.10	9919.32
0.000788	1.	1.	1.	2	0	0	0.00	161.88	10081.20

1490 NH CARD USED
*SECNO 5.240

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1751.50 ELREA= 1751.80

Centerline Station at 10000

5.24	14.69	1747.79	0.00	1747.79	1748.85	1.06	0.06	0.24	1751.50
12130.	0.	12130.	0.	0.	1470.	0.	210.	43.	1751.80
0.18	0.00	8.25	0.00	0.089	0.035	0.027	0.000	1733.10	9911.45
0.001557	63.	63.	63.	2	0	0	0.00	125.28	10036.73

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.460

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1756.20 ELREA= 1758.00

Centerline Station at 10000

5.46	9.13	1750.53	1750.53	1750.53	1754.02	3.49	3.84	0.73	1756.20
12130.	0.	12130.	0.	0.	809.	0.	242.	46.	1758.00
0.23	0.00	14.99	0.10	0.106	0.035	0.130	0.000	1741.40	9928.89
0.010031	1198.	1198.	1198.	5	17	0	0.00	118.00	10046.90

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 5.750

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1758.60 ELREA= 1763.80

Centerline Station at 10000

5.75	12.23	1757.03	0.00	1757.03	1758.44	1.40	4.20	0.21	1758.60
12130.	0.	12130.	0.	0.	1276.	0.	278.	51.	1763.80
0.25	0.00	9.51	0.00	0.106	0.025	0.130	0.000	1744.80	9933.30
0.001258	1532.	1532.	1532.	3	0	0	0.00	126.90	10060.20

*SECNO 5.780

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1758.60 ELREA= 1763.80

Centerline Station at 10000

5.78	12.49	1757.29	0.00	1757.29	1758.63	1.33	0.18	0.01	1758.60
12130.	0.	12130.	0.	0.	1309.	0.	283.	51.	1763.80
0.25	0.00	9.27	0.00	0.106	0.025	0.130	0.000	1744.80	9932.75
0.001167	150.	150.	150.	2	0	0	0.00	127.87	10060.62

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1764.40 ELREA= 1763.50

Centerline Station at 10000

5.79	12.28	1757.98	0.00	1757.98	1758.83	0.86	0.06	0.14	1764.40
12130.	0.	12130.	0.	0.	1634.	0.	285.	51.	1763.50
0.26	0.00	7.42	0.00	0.106	0.025	0.130	0.000	1745.70	9921.34
0.000722	50.	70.	150.	2	0	0	0.00	157.35	10078.69

*SECNO 5.795

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XML	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1764.40 ELREA= 1763.50

Centerline Station at 10000

5.80	12.22	1757.92	0.00	1757.92	1758.89	0.98	0.00	0.06	1764.40
12130.	0.	12130.	0.	0.	1529.	0.	285.	51.	1763.50
0.25	0.00	7.93	0.00	0.106	0.025	0.130	0.000	1745.70	9922.00
0.001624	1.	1.	1.	2	0	0	0.00	151.00	10078.02

*SECNO 5.813

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1764.40 ELREA= 1763.50

**** Bonanza Avenue ****
2* Debris Loading
Normal Bridge
Centerline Station at 10000

5.81	12.06	1757.96	0.00	1757.96	1759.22	1.26	0.19	0.14	1764.40
12130.	0.	12130.	0.	0.	1347.	0.	288.	52.	1763.50
0.26	0.00	9.00	0.00	0.106	0.025	0.130	0.000	1745.90	9921.47
0.002270	98.	98.	98.	2	0	0	0.00	136.06	10078.55

*SECNO 5.814

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1764.40 ELREA= 1763.50

Centerline Station at 10000

5.81	12.68	1758.58	0.00	1758.58	1759.36	0.79	0.00	0.14	1764.40
12130.	0.	12130.	0.	0.	1702.	0.	288.	52.	1763.50
0.26	0.00	7.13	0.00	0.106	0.025	0.130	0.000	1745.90	9920.24
0.000643	1.	1.	1.	2	0	0	0.00	159.55	10079.79

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 5.820

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1760.70 ELREA= 1760.10

Centerline Station at 10000

5.82	12.44	1758.34	0.00	1758.34	1759.67	1.33	0.03	0.27	1760.70
12130.	0.	12130.	0.	0.	1309.	0.	289.	52.	1760.10
0.26	0.00	9.26	0.00	0.106	0.032	0.130	0.000	1745.90	9918.38
0.002223	30.	30.	30.	2	0	0	0.00	145.40	10063.78

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.960

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1759.70 ELREA= 1762.40

Centerline Station at 10000

5.96	10.66	1760.06	0.00	1760.06	1761.79	1.73	2.01	0.12	1759.70
12130.	0.	12130.	0.	0.	1148.	1.	310.	54.	1762.40
0.28	0.56	10.57	0.00	0.050	0.032	0.130	0.000	1749.40	9910.26
0.003480	750.	730.	650.	3	0	0	0.00	151.18	10061.44

1490 NH CARD USED
*SECNO 6.160

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1763.00 ELREA= 1764.90

Centerline Station at 10000

6.16	12.01	1763.81	0.00	1763.81	1766.51	2.70	4.43	0.29	1763.00
12130.	48.	12092.	0.	18.	914.	0.	335.	58.	1764.90
0.30	2.67	13.21	0.00	0.040	0.032	0.130	0.000	1751.80	9885.78
0.005145	1056.	1056.	1055.	3	0	0	0.00	131.45	10051.40

)

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 6.350

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1771.80 ELREA= 1771.80

Centerline Station at 10000

6.35	10.77	1770.97	0.00	1770.97	1774.04	3.08	7.42	0.11	1771.60
12130.	0.	12130.	0.	0.	862.	0.	356.	60.	1771.80
0.32	0.00	14.07	0.00	0.040	0.045	0.040	0.000	1760.20	9550.78
0.011501	1100.	1004.	950.	3	0	0	0.00	104.47	10055.25

)

1490 NH CARD USED
*SECNO 6.400

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9862.0 10297.0 TYPE= 1 TARGET= 435.000
Upstream of confluence with Washington Ave Channel.
ROB breakouts from upstream return at downstream xsec.
Centerline Station at 10000

6.40	9.22	1775.62	1775.14	1775.62	1777.36	1.74	3.18	0.13	1775.00
11760.	39.	8954.	2767.	48.	750.	741.	364.	62.	1773.30
0.33	0.81	11.94	3.73	0.130	0.045	0.100	0.000	1766.40	9862.00
0.010498	300.	292.	273.	6	15	0	0.00	427.05	10289.05

)

1490 NH CARD USED
*SECNO 6.570

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1781.60 ELREA= 1781.60

Centerline Station at 10000

6.57	13.01	1781.51	0.00	1781.51	1783.35	1.84	5.96	0.03	1781.60
11760.	0.	11760.	0.	0.	1080.	0.	386.	66.	1781.60
0.35	0.00	10.89	0.00	0.130	0.045	0.100	0.000	1768.50	9932.10
0.005400	920.	856.	500.	2	0	0	0.00	102.87	10034.97

)

1490 NH CARD USED
*SECNO 6.710

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1784.80 ELREA= 1784.80

Centerline station at 15000
Upstream of this xsec, 70% of LOB breakout from Reach 4
returns to channel concurrently with channel peak Q.

6.71	15.18	1784.48	0.00	1784.48	1786.14	1.66	2.77	0.02	1784.80
11760.	0.	11760.	0.	0.	1137.	0.	406.	68.	1784.80
0.37	0.00	10.35	0.00	0.130	0.035	0.100	0.000	1769.30	14942.39
0.002506	650.	780.	450.	3	0	0	0.00	96.26	15038.65

3
1

TN ROB BREAKOUT UPSTREAM OF NELLIS AVE

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
582.4	1.49	2.38	1.15	520.0	507.9

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
866.55	866.59	0.01	866.55	866.59	0.01	5	1738.162	1741.177	4.456	4.570

1

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 50-YR

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.420	0.00	0.00	0.00	1724.20	12263.45	1735.90	0.00	1737.12	44.15	8.85	1386.25	1845.68
4.437	90.00	0.00	0.00	1724.00	12263.45	1736.31	0.00	1737.47	31.75	8.65	1477.14	2176.30
4.438	1.00	1737.50	1739.70	1724.00	12263.45	1736.16	0.00	1737.63	159.82	9.73	1260.60	970.06
4.456	98.00	1737.50	1739.70	1724.00	12263.45	1738.16	0.00	1739.49	217.21	9.38	1439.61	832.10
4.457	1.00	0.00	0.00	1724.00	12263.45	1739.22	0.00	1739.73	11.35	6.09	2647.34	3639.94
4.470	60.00	0.00	0.00	1724.80	11263.45	1739.05	0.00	1740.12	33.88	8.34	1415.63	1935.07
4.570	562.00	0.00	0.00	1725.00	12130.00	1741.18	0.00	1741.52	17.05	5.39	3445.59	2937.33
4.680	540.00	0.00	0.00	1725.20	12130.00	1741.97	0.00	1742.56	19.50	6.64	3645.64	2747.21
4.695	100.00	0.00	0.00	1725.60	12130.00	1742.51	0.00	1742.75	5.18	4.07	4248.45	5327.85
4.696	1.00	1740.30	1740.90	1725.60	12130.00	1742.41	0.00	1742.85	126.44	6.12	2897.24	1078.72
4.714	98.00	1740.30	1740.90	1725.60	12130.00	1743.55	0.00	1743.89	84.58	5.41	3280.83	1318.98
4.715	1.00	0.00	0.00	1725.60	12130.00	1743.74	0.00	1743.93	3.89	3.70	4862.89	6151.06

4.720	50.00	0.00	0.00	1728.30	12130.00	1743.51	0.00	1744.22	10.66	6.92	2225.75	3714.98
4.750	150.00	0.00	0.00	1728.30	12130.00	1743.80	0.00	1744.42	15.30	6.55	2459.88	3101.26
4.940	965.00	0.00	0.00	1730.10	12130.00	1744.98	0.00	1745.90	13.81	7.68	1578.51	3264.54
5.180	1277.00	0.00	0.00	1732.10	12130.00	1746.75	0.00	1747.82	15.71	8.28	1465.15	3060.02
5.235	150.00	0.00	0.00	1732.90	12130.00	1747.51	0.00	1748.12	8.41	6.29	1929.98	4182.81

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	5.206	1.00	1749.50	1750.70	1732.90	12130.00	1747.48	0.00	1748.15	19.58	6.58	1844.08	2741.35
	5.224	98.00	1749.50	1750.70	1733.10	12130.00	1747.61	0.00	1748.47	26.97	7.41	1637.67	2335.79
	5.225	1.00	0.00	0.00	1733.10	12130.00	1747.96	0.00	1748.55	7.88	6.14	1975.98	4320.96
	5.240	60.00	0.00	0.00	1733.10	12130.00	1747.79	0.00	1748.85	15.57	8.25	1469.74	3074.16
*	5.460	1198.00	0.00	0.00	1741.40	12130.00	1750.53	1750.53	1754.02	100.31	14.99	809.10	1211.12
	5.750	1532.00	0.00	0.00	1744.80	12130.00	1757.03	0.00	1758.44	12.58	9.51	1275.50	3420.22
	5.730	150.00	0.00	0.00	1744.80	12130.00	1757.29	0.00	1758.63	11.67	9.27	1308.75	3550.59
	5.794	70.00	0.00	0.00	1745.70	12130.00	1757.98	0.00	1758.83	7.22	7.42	1634.49	4514.04
	5.795	1.00	1763.50	1764.40	1745.70	12130.00	1757.92	0.00	1758.89	16.24	7.93	1528.91	3009.79
	5.813	98.00	1763.50	1764.40	1745.90	12130.00	1757.96	0.00	1759.22	22.70	9.00	1347.23	2545.84
	5.814	1.00	0.00	0.00	1745.90	12130.00	1758.58	0.00	1759.36	6.43	7.13	1702.21	4784.72
	5.820	30.00	0.00	0.00	1745.90	12130.00	1758.34	0.00	1759.67	22.23	9.26	1309.38	2572.51
	5.960	730.00	0.00	0.00	1749.40	12130.00	1760.06	0.00	1761.79	34.80	10.57	1148.58	2056.10
	6.160	1056.00	0.00	0.00	1751.80	12130.00	1763.81	0.00	1766.51	51.45	13.21	932.35	1691.04
	6.350	1004.00	0.00	0.00	1760.20	12130.00	1770.97	0.00	1774.04	115.01	14.07	861.89	1131.08
	6.430	292.00	0.00	0.00	1766.40	11760.00	1775.62	1775.14	1777.36	104.98	11.94	1539.19	1147.79
	6.570	856.00	0.00	0.00	1768.50	11760.00	1781.51	0.00	1783.35	54.00	10.89	1080.26	1600.31
	6.710	780.00	0.00	0.00	1769.30	11760.00	1784.48	0.00	1786.14	25.06	10.35	1136.57	2349.07

LAS VEGAS WASH - 50-YE
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.420	12263.45	1735.90	0.00	0.00	0.00	166.50	0.00
4.437	12263.45	1736.31	0.00	0.41	0.00	270.82	90.00

4.454	12263.45	1738.16	0.00	-0.15	0.00	269.70	1.00
4.456	12263.45	1738.16	0.00	2.00	0.00	474.71	98.00
4.457	12263.45	1739.22	0.00	1.05	0.00	494.76	1.00
4.470	11263.45	1739.05	0.00	-0.17	0.00	290.06	60.00
4.570	12130.00	1741.18	0.00	2.13	0.00	933.00	562.00
4.680	12130.00	1741.97	0.00	0.79	0.00	1280.00	540.00
4.695	12130.00	1742.51	0.00	0.54	0.00	901.00	100.00
4.696	12130.00	1742.41	0.00	-0.10	0.00	901.00	1.00
4.714	12130.00	1743.55	0.00	1.15	0.00	788.44	98.00
4.715	12130.00	1743.74	0.00	0.19	0.00	792.47	1.00
4.720	12130.00	1743.51	0.00	-0.22	0.00	797.60	50.00
4.750	12130.00	1743.80	0.00	0.29	0.00	827.14	150.00
4.940	12130.00	1744.98	0.00	1.18	0.00	140.53	965.00
5.130	12130.00	1746.75	0.00	1.78	0.00	125.19	1277.00
5.205	12130.00	1747.51	0.00	0.75	0.00	160.22	150.00
5.206	12130.00	1747.48	0.00	-0.03	0.00	159.35	1.00
5.224	12130.00	1747.61	0.00	0.13	0.00	144.06	98.00
5.225	12130.00	1747.96	0.00	0.35	0.00	161.69	1.00
5.240	12130.00	1747.79	0.00	-0.17	0.00	125.28	60.00
5.450	12130.00	1750.53	0.00	2.74	0.00	118.00	1198.00
5.750	12130.00	1757.03	0.00	6.50	0.00	126.90	1532.00
5.780	12130.00	1757.29	0.00	0.26	0.00	127.87	150.00

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6-MAY-88 16:31:23 PAGE 28

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5.794	12130.00	1757.98	0.00	0.69	0.00	157.35	70.00
5.795	12130.00	1757.92	0.00	-0.06	0.00	151.00	1.00
5.813	12130.00	1757.96	0.00	0.05	0.00	136.06	98.00
5.814	12130.00	1758.58	0.00	0.61	0.00	159.55	1.00
5.820	12130.00	1758.34	0.00	-0.24	0.00	145.40	30.00
5.960	12130.00	1760.06	0.00	1.72	0.00	151.18	730.00
6.150	12130.00	1763.81	0.00	3.75	0.00	131.45	1056.00
6.350	12130.00	1770.97	0.00	7.16	0.00	104.47	1004.00
6.400	11760.00	1775.62	0.00	4.65	0.00	427.05	292.00

6.570	11760.00	1761.51	0.00	5.89	0.00	102.87	856.00
6.710	11760.00	1784.48	0.00	2.96	0.00	96.26	780.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 5.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.460 PROFILE= 1 MINIMUM SPECIFIC ENERGY


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   3-MAY-88 TIME   10:30:00          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX                 XXXXX
X      X  X        X     X               X     X
X      X  X        X                     X     X
XXXXXXXX  XXXX     X           XXXXX     XXXXX
X      X  X        X                     X
X      X  X        X     X               X
X      X  XXXXXXX   XXXXX                XXXXXXX
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR (MIDDLE REACH)                    12/87     SRM

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
       0.        2.        0.        0.  0.000000      0.00      0.5        0.  1733.900     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
      -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.050     0.027     0.045     0.100     0.300     0.000     0.000     0.000     0.000     0.000
GT       1.000  7800.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NH       5.000     0.045  3880.000     0.130  8050.000     0.050  9935.000     0.045 10132.000     0.100
NH   15890.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNDER IVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 10000
X1       4.420    27.000  9935.000 10132.000   992.000   992.000   992.000     0.000     0.000     0.000
GR    1748.000  2045.000  1744.000  2335.000  1740.000  3060.000  1740.000  3515.000  1736.000  3675.000
GR    1736.000  3880.000  1736.000  6450.000  1736.500  8050.000  1739.700  9731.000  1739.700  9794.000
GR    1737.400  9813.000  1737.000  9935.000  1724.900  9956.000  1724.800 10000.000  1724.200 10052.000
GR    1732.300 10072.000  1735.400 10095.000  1737.600 10132.000  1737.600 10179.000  1738.000 10236.000
GR    1736.000 10750.000  1735.600 11580.000  1736.000 12365.000  1740.000 13440.000  1744.000 14870.000
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GR	1744.000	15500.000	1743.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	1.345	3896.000	0.130	8066.000	0.050	9933.000	0.045	10067.000	0.100
NH	15905.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3876.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.438	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1736.000	1736.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3876.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9954.000	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9984.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

**** NELLIS BOULEVARD ****
1' DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1736.000	1736.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3876.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1736.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000
GR	1736.000	10013.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3876.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

GT	1.000	6800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	1.345	3730.000	0.130	8295.000	0.050	9966.000	0.045	10057.000	0.050
NH	11360.000	0.100	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.478	41.000	9919.000	10050.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1752.000	1595.000	1748.000	2335.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	8200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9903.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.300	10050.000	1738.800	10072.000	1737.100	10078.000

GR	1737.700	10230.000	1737.100	10310.000	1738.400	10373.000	1739.400	10392.000	1737.300	10397.000
GR	1738.400	10434.000	1736.000	11360.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000

GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.100	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	9914.000	0.055
NH	10061.000	0.070	10493.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.570	43.000	9914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1756.000	1380.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1738.000	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1738.800	9862.000	1737.300	9886.000	1739.100	9914.000	1736.900	9930.000	1725.600	9953.000
GR	1725.600	9974.000	1727.100	9989.000	1725.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.300	10040.000	1737.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	10089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384.000	1739.400	10403.000
GR	1737.300	10408.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1748.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10050.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.660	28.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
GR	1760.000	1210.000	1756.000	1560.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1740.000	2770.000	1740.000	2855.000	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000
GR	1740.000	9323.000	1740.000	9935.000	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000
GR	1725.200	9989.000	1725.200	10010.000	1728.900	10012.000	1728.100	10025.000	1733.800	10029.000
GR	1737.500	10040.000	1738.800	10050.000	1740.000	10065.000	1744.000	13035.000	1748.000	13975.000
GR	1752.000	14925.000	1756.000	15500.000	1760.000	16450.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10067.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.695	23.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1735.000	1735.000	0.000
GR	1760.000	1239.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.696	37.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9930.000	1733.000	9931.500	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300
GR	1733.000	9977.700	1725.600	9977.800	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900
GR	1725.600	10024.000	1725.600	10068.600	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200
GR	1733.000	10086.800	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14569.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	0.000	0.000	0.000	0.000	9661.000	10200.000	0.000	0.000

**** CHARLESTON BOULEVARD ****
2° DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.714	37.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	6.000	9561.300	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9928.000	1733.000	9933.500	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200
GR	1733.000	9979.700	1725.600	9979.800	1725.600	10020.400	1733.000	10020.500	1733.000	10025.900
GR	1725.600	10026.000	1725.600	10066.600	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200
GR	1733.000	10086.800	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9661.000	10200.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.715	23.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1740.500	1740.500	0.000
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.720	35.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	8875.000	1744.000	10240.000	1744.000	0.000	0.000	0.000
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000
GR	1740.000	2950.000	1740.000	3035.000	1744.000	3050.000	1744.000	3880.000	1740.000	4875.000
GR	1740.000	6390.000	1744.000	7295.000	1744.000	8875.000	1742.300	9833.000	1741.900	9954.000
GR	1729.600	9976.000	1729.200	9988.000	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000
GR	1729.600	10023.000	1729.900	10055.000	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000
GR	1743.500	10096.000	1743.900	10137.000	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000
GR	1744.000	13400.000	1748.000	14690.000	1752.000	15375.000	1756.000	15925.000	1760.000	16450.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	8875.000	1744.000	10240.000	1744.000	0.000	0.000	0.000

NH	8.000	0.130	3095.000	0.045	3280.000	0.100	7641.000	0.045	9897.000	0.035
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000
GR	1760.000	1720.000	1756.000	1875.000	1752.000	2530.000	1752.000	2690.000	1748.000	3095.000
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9889.000
GR	1745.600	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000
GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000
GR	1744.000	13557.000	1748.000	14302.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	3500.000	0.045	3575.000	0.130	5425.000	0.045	9320.000	0.065
NH	9905.000	0.035	10040.000	0.130	17355.000	0.040	18900.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.160	29.000	9905.000	10040.000	1180.000	1277.000	1277.000	0.000	0.000	0.000
GR	1760.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1748.000	3500.000
GR	1748.000	3555.000	1752.000	3575.000	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000
GR	1748.000	9330.000	1753.500	9803.000	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000

GR	1732.100	9937.000	1732.300	9978.000	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000
GR	1735.900	10017.000	1737.300	10029.000	1750.800	10040.000	1752.700	10071.000	1752.000	10200.000
GR	1752.000	14875.000	1756.000	15780.000	1760.000	17355.000	1770.000	18900.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045
NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17630.000	0.040	18935.000	0.000

CENTERLINE STATION AT 10000.

X1	5.205	24.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	1772.000	1950.000	1763.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1732.900	9948.000	1732.900	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.206	38.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000
GR	1732.900	9950.000	1748.600	9950.100	1748.600	9951.500	1732.900	9951.600	1732.900	9982.800
GR	1748.600	9982.900	1748.600	9984.300	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700
GR	1748.600	10017.100	1732.900	10017.200	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900
GR	1732.900	10050.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

**** STEWART AVENUE ****

2' DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

X1	5.224	38.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000
GR	1733.100	9948.000	1748.600	9948.100	1748.600	9953.500	1733.100	9953.600	1733.100	9980.800
GR	1748.600	9980.900	1748.600	9986.300	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700
GR	1748.600	10019.100	1733.100	10019.200	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900
GR	1733.100	10052.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.225	24.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1733.100	9948.000	1733.100	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
NH	10.000	0.040	2530.000	0.100	3420.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.030	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.240	32.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1772.000	2035.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3432.000	1748.000	3445.000	1748.000	3515.000	1752.000	3530.000	1752.000	3725.000
GR	1748.000	5155.000	1748.000	6415.000	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000
GR	1751.800	9826.000	1751.900	9875.000	1751.500	9905.000	1732.100	9937.000	1733.300	9978.000
GR	1734.700	9988.000	1733.300	9997.000	1733.300	10002.000	1736.500	10017.000	1728.300	10029.000
GR	1751.800	10040.000	1754.700	10071.000	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000
GR	1760.000	17670.000	1770.000	18830.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.345	3110.000	0.130	8140.000	0.040	9916.000	0.035	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.460	36.000	9916.000	10051.000	1198.000	1198.000	1198.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2325.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000
GR	1760.000	3110.000	1760.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	6140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10065.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.000	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000
GR	1758.900	11191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.345	2785.000	0.120	4110.000	0.045	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.756	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9685.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.600	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.200	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10368.000	1764.800	10376.000	1762.800	10430.000	1764.000	10465.000
GR	1764.000	10815.000	1760.500	10990.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17865.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10091.000	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.794	22.000	9911.000	10091.000	50.000	150.000	70.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9983.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9948.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		**** BONANZA AVENUE ****								
		2* DEBRIS LOADING								
		NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	5.813	36.000	9911.000	10091.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9985.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1762.500	9945.700	1762.500	9950.900
GR	1745.900	9951.000	1745.900	9980.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500

GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.814	22.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9805.000	0.050	9913.000	0.032
NH	10069.000	0.045	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.820	30.000	9913.000	10069.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4551.000	1760.000	5405.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.800	9857.000	1761.400	9883.000	1760.300	9897.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1749.400	9966.000	1745.900	9973.000
GR	1745.900	10027.000	1760.100	10069.000	1759.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7555.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	15315.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.960	25.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
GR	1776.000	1875.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	9888.000	1761.800	9897.000	1759.700	9913.000
GR	1751.800	9941.000	1752.100	9953.000	1752.000	9966.000	1749.400	9973.000	1745.400	10027.000
GR	1762.400	10069.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	9698.000	0.040	9929.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.160	48.000	9939.000	10054.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
GR	1768.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1769.100	9786.000	1766.900	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1760.700	10044.000	1764.900	10054.000
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10228.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000

NH	8.000	0.090	7425.000	0.130	9678.000	0.040	9949.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000

GR	1764.000	1180.000	1780.000	1770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.600	10125.000	1772.800	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000
NH	6.000	0.050	8115.000	0.130	9946.000	0.045	10057.000	0.100	11980.000	0.040
NH	16070.000	0.130	18375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.400	34.000	9946.000	10057.000	300.000	270.000	292.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9862.000	1775.100	10128.000	1774.000	0.000	0.000	0.000
GR	1784.000	1215.000	1780.000	2265.000	1776.000	6430.000	1776.000	8115.000	1776.000	9640.000
GR	1775.600	9710.000	1773.900	9772.000	1773.900	9799.000	1773.600	9810.000	1775.100	9862.000
GR	1775.000	9946.000	1767.100	9964.000	1767.100	9983.000	1766.400	9991.000	1766.400	9995.000
GR	1766.400	10009.000	1770.200	10033.000	1773.300	10057.000	1773.000	10073.000	1772.700	10087.000
GR	1774.000	10128.000	1772.600	10143.000	1772.600	10183.000	1772.600	10224.000	1766.600	10239.000
GR	1766.600	10247.000	1774.100	10268.000	1776.200	10297.000	1776.000	10850.000	1776.000	11980.000
GR	1776.000	13470.000	1778.900	16070.000	1780.000	17095.000	1784.000	18375.000	0.000	0.000
NH	7.000	0.090	8865.000	0.100	9932.000	0.045	10035.000	0.045	10610.000	0.100
NH	11340.000	0.045	15790.000	0.130	18305.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.576	29.000	9932.000	10035.000	520.000	500.000	856.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1788.000	35.000	1784.000	1250.000	1780.000	4925.000	1780.000	8865.000	1777.800	9808.000
GR	1777.800	9828.000	1778.800	9894.000	1781.600	9932.000	1770.600	9945.000	1769.300	9972.000
GR	1769.300	9982.000	1768.500	9991.000	1768.500	10009.000	1773.300	10020.000	1773.300	10032.000
GR	1781.600	10035.000	1773.600	10061.000	1777.500	10085.000	1779.600	10129.000	1779.600	10224.000
GR	1776.800	10433.000	1776.000	10475.000	1776.000	10610.000	1780.000	11340.000	1780.000	15790.000
GR	1780.000	17135.000	1784.000	17805.000	1788.000	18025.000	1790.000	18305.000	0.000	0.000
NH	9.000	0.130	4690.000	0.100	13425.000	0.130	14809.000	0.030	14942.000	0.035
NH	15039.000	0.045	16195.000	0.100	16755.000	0.045	21140.000	0.130	22860.000	0.000
		CENTERLINE STATION AT 15000								
X1	6.715	42.000	14942.000	15039.000	650.000	450.000	780.000	0.000	0.000	0.000
X3	6.000	0.000	0.000	14942.000	17684.800	15039.000	1784.800	0.000	0.000	0.000
GR	1796.000	2680.000	1792.000	3960.000	1792.000	4690.000	1784.000	8200.000	1784.000	12020.000
GR	1784.000	13425.000	1780.000	14065.000	1780.000	14680.000	1777.400	14809.000	1777.600	14835.000
GR	1778.500	14910.000	1779.000	14914.000	1784.800	14942.000	1773.000	14956.000	1769.300	14987.000
GR	1769.300	14997.000	1769.300	15012.000	1771.900	15025.000	1784.800	15039.000	1781.900	15040.000
GR	1781.900	15071.000	1781.000	15110.000	1781.300	15136.000	1781.200	15150.000	1781.200	15167.000
GR	1780.000	15195.000	1782.100	15222.000	1782.100	15298.000	1781.800	15387.000	1779.800	15404.000
GR	1779.800	15461.000	1781.600	15472.000	1781.000	15531.000	1780.000	15640.000	1780.000	15710.000
GR	1782.000	16195.000	1782.000	16755.000	1784.000	21140.000	1784.000	21860.000	1788.000	22235.000
GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.420

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 10000

4.42	9.70	1733.90	0.00	1733.90	1734.71	0.81	0.00	0.00	1737.00
7800.	0.	7800.	0.	0.	1080.	0.	0.	0.	1737.60
0.00	0.00	7.22	0.00	0.000	0.045	0.000	0.000	1724.20	9940.38
0.003369	992.	992.	992.	0	0	0	0.00	143.45	10083.87

CCHL= 0.360 CEHV= 0.600
1496 NH CARD USED
*SECNO 4.437

CENTERLINE STATION AT 10000

4.44	10.27	1734.27	0.00	0.00	1734.59	0.73	0.26	0.03	1736.00	
7800.	0.	7800.	0.	0.	1141.	0.	2.	0.	1736.00	
0.00	0.00	6.84	0.00	0.000	0.045	0.000	0.000	1724.00	9935.89	
0.002463	90.	90.	90.	3	0	0	0.00	128.22	10064.11	

*SECNO 4.438

3265 DIVIDED FLOW

337 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

CENTERLINE STATION AT 10000

4.44	10.20	1734.20	0.00	0.00	1735.07	0.88	0.00	0.08	1736.00	
7800.	0.	7800.	0.	0.	1338.	0.	2.	0.	1736.00	
0.00	0.00	7.51	0.00	0.000	0.045	0.000	0.000	1724.00	9936.16	
0.005998	1.	1.	1.	2	0	0	0.00	119.98	10063.86	

*SECNO 4.456

3265 DIVIDED FLOW

SECNO	DEPTH	C*SEL	CRIWS	*SELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOP*IC	ENDST

337 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

4.46	10.78	1734.78	0.00	0.00	1735.66	0.88	0.59	0.00	1736.00	
7800.	0.	7800.	0.	0.	1035.	0.	5.	1.	1736.00	
0.01	0.00	7.53	0.00	0.000	0.045	0.000	0.000	1724.00	9935.03	
0.006040	98.	98.	98.	2	0	0	0.00	114.28	10064.99	

*SECNO 4.457

CENTERLINE STATION AT 10000

4.46	11.15	1735.15	0.00	0.00	1735.75	0.60	0.00	0.08	1736.00	
7800.	0.	7800.	0.	0.	1256.	0.	5.	1.	1736.00	
0.01	0.00	6.21	0.00	0.000	0.045	0.000	0.000	1724.00	9934.41	
0.001849	1.	1.	1.	2	0	0	0.00	131.19	10065.59	

FLOW DISTRIBUTION FOR SECNO= 4.46 C*SEL= 1735.15

STA= 9934. 10067.
PER Q= 100.
AREA= 1256.1
VEL= 6.2

1496 NH CARD USED
*SECNO 4.470

CENTERLINE STATION AT 10000

4.47	10.33	1735.13	0.00	0.00	1736.09	0.96	0.16	0.18	1736.90	
6800.	0.	6800.	0.	0.	865.	0.	6.	1.	1738.80	

```
      0.01       0.00       7.86       0.00      0.000      0.045      0.000      0.000  1724.80  9922.59
  0.004276        60.        60.        60.          2          0          0       0.00   110.38 10032.97
0
 CCHL=    0.10  CCHV=    0.300
 1490 NH CARD USED
 *SECNO 4.570

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1739.10 ELREA=     1738.80

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                CENTERLINE STATION AT 10000
      4.57     12.53  1737.53       0.00       0.00  1738.09       0.56       1.96       0.04  1739.10
      6800.        .       6800.       0.         0.     1125.         0.        19.         2.  1738.80
       0.04       0.00       6.02       0.00      0.000      0.055      0.000      0.000  1725.00  9925.46
  0.002896        350.       562.       800.          3          0          0       0.00   125.72 10051.18

 1490 NH CARD USED
 *SECNO 4.680
                CENTERLINE STATION AT 10000
      4.68     13.67  1738.87       0.00       0.00  1739.39       0.53       1.30       0.00  1740.00
      6800.        .       6800.       0.         0.     1167.         0.        33.         4.  1740.00
       0.06       0.00       5.82       0.00      0.000      0.100      0.000      0.000  1725.20  9935.56
  0.002034        350.       540.       550.          2          0          0       0.00   115.14 10050.70
0
 CCHL=    0.30  CCHV=    0.500
 1490 NH CARD USED
 *SECNO 4.695
                CENTERLINE STATION AT 10000
      4.70     13.34  1739.44       0.00       0.00  1739.58       0.14       1.07       0.12  1740.30
      6800.        .       6800.       0.         0.     2296.         0.        37.         4.  1740.50
       0.07       0.00       2.96       0.00      0.000      0.050      0.000      0.000  1725.60  9913.02
  0.000358        100.       100.       100.          2          0          0       0.00   173.95 10086.97
0
 *SECNO 4.696

 3370 NORMAL BRIDGE,NRD=   6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

                CENTERLINE STATION AT 10000
      4.70     13.53  1739.23       0.00       0.00  1739.80       0.58       0.00       0.22  1740.30
      6800.        .       6800.       0.         0.     1116.         0.        37.         4.  1740.00
       0.07       0.00       6.09       0.00      0.000      0.050      0.000      0.000  1725.60  9913.03
  0.010542          1.         1.         1.          2          0          0 -1081.87   173.95 10086.98
0
 *SECNO 4.714

 3370 NORMAL BRIDGE,NRD=   6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

 3470 ENCROACHMENT STATIONS=     9661.0    10200.0  TYPE=      1  TARGET=      525.000
                **** CHARLESTON BOULEVARD ****
                     2" DEBRIS LOADING
                     NORMAL BRIDGE
                CENTERLINE STATION AT 10000
      4.71     14.74  1740.34       0.00       0.00  1741.04       0.70       1.18       0.06  1740.30
      6800.        .       6799.       1.         0.     1012.         2.        40.         4.  1740.00
       0.07       0.10       6.72       0.54      0.130      0.050      0.100      0.000  1725.60  9894.95
  0.013827         98.        98.        98.          3          0          0 -1276.20   201.74 10096.69
0
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         CLOSS      BANK ELEV
    G          QLOB       QCH        QROB       ALOB       ACH        ARCB       WCL        TBA      LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN         SSTA
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SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWIC	ENDST

*SECNO 4.715

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9661.0 10200.0 TYPE= 1 TARGET= 539.000
CENTERLINE STATION AT 10000

4.72	15.51	1741.11	0.00	0.00	1741.22	0.11	0.00	0.16	1740.30
6800.	15.	6785.	1.	130.	2587.	6.	40.	4.	1740.50
0.07	0.11	2.62	0.11	0.130	0.050	0.100	0.000	1725.60	9661.00
0.000243	1.	1.	1.	2	0	0	0.00	445.83	10106.83

1490 NH CARD USED
*SECNO 4.720

3470 ENCROACHMENT STATIONS= 8875.0 10240.0 TYPE= 1 TARGET= 1365.000
ELENCL= 1744.00 ELENCR= 1744.00
CENTERLINE STATION AT 10000

4.72	12.68	1740.98	0.00	0.00	1741.40	0.42	0.02	0.16	1741.90
6800.	0.	6800.	0.	0.	1303.	0.	42.	5.	1743.50
0.08	0.00	5.22	0.00	0.040	0.035	0.100	0.000	1728.30	9955.67
0.000788	50.	50.	50.	2	0	0	0.00	136.30	10091.97

CCHV= 0.100 CEHV= 0.300
1491 NH CARD USED
*SECNO 4.750

3470 ENCROACHMENT STATIONS= 8875.0 10240.0 TYPE= 1 TARGET= 1365.000
ELENCL= 1744.00 ELENCR= 1744.00
CENTERLINE STATION AT 10000

4.75	12.30	1741.10	0.00	0.00	1741.52	0.41	0.12	0.00	1741.90
6800.	0.	6803.	0.	0.	1321.	0.	47.	5.	1743.50
0.09	0.00	5.15	0.00	0.040	0.035	0.100	0.000	1728.30	9955.42
0.000755	150.	150.	150.	2	0	0	0.00	136.77	10092.19

1490 NH CARD USED
*SECNO 4.940
CENTERLINE STATION AT 10000

4.94	11.78	1741.88	0.00	0.00	1742.41	0.53	.86	0.04	1745.60
6800.	0.	6800.	0.	0.	1162.	0.	74.	8.	1747.90
0.13	0.00	5.85	0.00	0.040	0.035	0.100	0.000	1730.10	9919.89
0.001060	750.	965.	965.	2	0	0	0.00	128.49	10048.37

SECNO	DEPTH	CWSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV LEFT/RIGHT
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	SSTA
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	ENDST
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWIC	

1490 NH CARD USED
*SECNO 5.180
CENTERLINE STATION AT 10000

5.18	11.21	1743.31	0.00	0.00	1743.96	0.65	1.52	0.04	1750.50
6800.	0.	6800.	0.	0.	1049.	0.	106.	12.	1750.80
0.19	0.00	6.48	0.00	0.040	0.035	0.100	0.000	1732.10	9917.51
0.001338	1100.	1277.	1277.	2	0	0	0.00	116.39	10033.90

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.205
CENTERLINE STATION AT 10000

5.20	10.90	1743.80	0.00	0.00	1744.19	0.39	0.15	0.08	1750.20
6800.	0.	6800.	0.	0.	1362.	0.	111.	12.	1745.90
0.19	0.00	4.99	0.00	0.040	0.035	0.100	0.000	1732.90	9927.21
0.000738	150.	150.	150.	2	0	0	0.00	145.96	10073.16

*SECNO 5.206

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

CENTERLINE STATION AT 10000

5.21	10.88	1743.73	0.00	0.00	1744.21	0.43	0.00	0.02	1748.60
6800.	0.	6813.	0.	0.	1285.	0.	111.	12.	1746.60
0.19	0.00	5.29	0.00	0.040	0.035	0.100	0.000	1732.90	9925.75
0.001602	1.	1.	1.	2	0	0	0.00	142.65	10074.25

*SECNO 5.224

3265 DIVIDED FLOW

337 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.5 MAX ELLC= 1750.70

**** STEWART AVENUE ****
2' DEBRIS LOADING
NORMAL BRIDGE

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CENTERLINE STATION AT 10000

5.22	10.80	1743.90	0.00	0.00	1744.46	0.56	0.16	0.06	1748.60
6800.	0.	6800.	0.	0.	1132.	0.	113.	12.	1748.60
0.20	0.00	6.01	0.00	0.040	0.035	0.100	0.000	1733.10	9925.01
0.002236	98.	98.	98.	2	0	0	0.00	128.07	10074.99

*SECNO 5.225

CENTERLINE STATION AT 10000

5.22	11.04	1744.14	0.00	0.00	1744.52	0.37	0.00	0.06	1750.20
6800.	0.	6800.	0.	0.	1386.	0.	113.	13.	1749.90
0.20	0.00	4.91	0.00	0.040	0.035	0.100	0.000	1733.10	9926.69
0.000703	1.	1.	1.	2	0	0	0.00	147.00	10073.69

1490 NH CARD USED
*SECNO 5.240

CENTERLINE STATION AT 10000

5.24	10.94	1744.04	0.00	0.00	1744.73	0.69	0.06	0.16	1751.50
6800.	0.	6800.	0.	0.	1018.	0.	115.	13.	1751.80
0.20	0.00	6.68	0.00	0.040	0.035	0.100	0.000	1733.10	9917.97
0.001464	65.	65.	65.	2	0	0	0.00	115.71	10083.68

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.460

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.46	6.48	1747.88	1747.88	0.00	1750.55	2.67	3.72	0.59	1756.20
6800.	0.	6800.	0.	0.	519.	0.	136.	16.	1758.00
0.23	0.00	13.11	0.00	0.130	0.035	0.100	0.000	1741.40	9934.94
0.010546	1198.	1198.	1198.	20	11	0	0.00	97.02	10031.96

1490 NH CARD USED
*SECNO 5.750

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.75	9.01	1753.81	0.00	0.00	1754.72	0.92	4.00	0.18	1758.60
6800.	0.	6800.	0.	0.	885.	0.	161.	19.	1763.80
0.28	0.00	7.68	0.00	0.130	0.025	0.100	0.000	1744.80	9540.07
0.001156	1532.	1532.	1532.	4	0	0	0.00	114.98	10055.05

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TKA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICFHID	ENDST

*SECNO 5.780

CENTERLINE STATION AT 10000

5.78	9.23	1754.03	0.00	0.00	1754.89	0.86	0.17	0.01	1758.60
6800.	0.	6800.	0.	0.	911.	0.	164.	20.	1763.80
0.29	0.00	7.46	0.00	0.130	0.025	0.100	0.000	1744.80	9539.60
0.001062	150.	150.	150.	2	0	0	0.00	115.80	10055.41

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

CENTERLINE STATION AT 10000

5.79	8.75	1754.45	0.00	0.00	1755.04	0.59	0.06	0.08	1764.40
6800.	0.	6800.	0.	0.	1104.	0.	166.	20.	1763.50
0.29	0.00	6.16	0.00	0.130	0.025	0.100	0.000	1745.70	9928.30
0.000734	50.	70.	150.	2	0	0	0.00	143.44	10071.74

*SECNO 5.795

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

CENTERLINE STATION AT 10000

5.80	8.70	1754.40	0.00	0.00	1755.09	0.68	0.00	0.05	1764.40
6800.	0.	6800.	0.	0.	1024.	0.	166.	20.	1763.50
0.29	0.00	6.64	0.00	0.130	0.025	0.100	0.000	1745.70	9929.37
0.001501	1.	1.	1.	2	0	0	0.00	136.12	10070.68

*SECNO 5.813

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

**** BONANZA AVENUE ****
2' DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TKA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
5.81	8.57	1754.47	0.00	0.00	1755.36	0.89	0.17	0.10	1764.40
6800.	0.	6800.	0.	0.	897.	0.	168.	20.	1763.50
0.29	0.00	7.58	0.00	0.130	0.025	0.100	0.000	1745.90	9928.46
0.002116	98.	98.	98.	2	0	0	0.00	121.94	10071.59

*SECNO 5.814

CENTERLINE STATION AT 10000

5.81	9.12	1754.92	0.00	0.00	1755.47	0.55	.00	0.10	1764.40
6800.	0.	6800.	0.	0.	1146.	0.	168.	20.	1763.50
0.29	0.00	5.94	0.00	0.130	0.025	0.100	0.000	1745.90	9927.55
0.000658	1.	1.	1.	2	0	0	0.00	144.95	10072.50

1490 NH CARD USED
*SECNO 5.820

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.82	8.79	1754.69	0.00	0.00	1755.77	1.08	0.04	0.27	1760.70
6800.	0.	6800.	0.	0.	614.	0.	168.	20.	1760.10
0.30	0.00	8.35	0.00	0.130	0.032	0.100	0.000	1745.90	9926.68
0.002805	30.	30.	30.	2	0	0	0.00	126.32	10053.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.960

CENTERLINE STATION AT 10000

5.96	7.58	1756.98	0.00	0.00	1758.37	1.39	2.50	0.09	1759.70
6800.	0.	6800.	0.	0.	719.	0.	181.	23.	1762.40
0.32	0.00	9.45	0.00	0.130	0.032	0.100	0.000	1749.40	9922.64
0.004287	750.	730.	650.	3	0	0	0.00	128.84	10051.49

1490 NH CARD USED
*SECNO 6.160

CENTERLINE STATION AT 10000

6.16	9.48	1761.28	0.00	0.00	1762.82	1.54	4.41	0.05	1763.00
6400.	0.	6400.	0.	0.	642.	0.	198.	25.	1764.90
0.35	0.00	9.97	0.00	0.130	0.032	0.100	0.000	1751.80	9544.00
0.004063	1056.	1056.	1056.	3	0	0	0.00	101.38	10045.38

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VCL	THA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	ANCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 6.350

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

6.35	7.33	1767.53	0.00	0.00	1769.81	2.29	6.77	0.22	1771.80
6400.	0.	6400.	0.	0.	527.	0.	211.	28.	1771.80
0.37	0.00	12.14	0.00	0.130	0.045	0.100	0.000	1760.20	9958.13
0.013290	1100.	1004.	950.	3	0	0	0.00	89.88	10048.00

1490 NH CARD USED
*SECNO 6.400
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 9862.0 10128.0 TYPE= 1 TARGET= 266.000
ELENCL= 1775.10 ELENCR= 1774.00

CENTERLINE STATION AT 10000

6.40	7.16	1773.56	1773.56	0.00	1775.84	2.29	4.36	0.00	1775.00
6400.	.	6365.	35.	.	523.	28.	215.	26.	1773.30
0.32	0.00	12.17	1.24	0.130	0.045	0.100	0.000	1766.40	9949.29
0.016919	300.	292.	270.	3	6	0	0.00	164.70	10113.99

1490 NH CARD USED
*SECNO 6.570

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1781.60 ELREA= 1781.60

CENTERLINE STATION AT 10000

6.57	11.39	1779.33	0.00	0.00	1780.65	0.76	4.65	0.15	1781.60
6400.	0.	6400.	0.	0.	915.	0.	229.	31.	1781.60
0.41	0.00	7.00	0.00	0.130	0.045	0.100	0.000	1768.50	9934.03
0.002647	920.	856.	500.	4	0	0	0.00	100.36	10034.38

1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

*SECNO 6.710

3470 ENCROACHMENT STATIONS= 14942.0 15039.0 TYPE= 1 TARGET= 97.000
ELENCL= 1784.80 ELENCR= 1784.80

CENTERLINE STATION AT 15000

6.71	12.14	1781.44	0.00	0.00	1782.31	0.87	1.63	0.03	1784.80
6400.	0.	6400.	0.	0.	855.	0.	245.	32.	1784.80
0.44	0.00	7.48	0.00	0.13	0.035	0.100	0.000	1769.30	14945.98
0.001698	650.	780.	450.	2	0	0	0.00	89.37	15035.35

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.420	0.00	0.00	0.00	1724.20	7800.00	1733.90	0.00	1734.71	33.65	7.22	1079.79	1343.89

4.437	9[illegible]	[illegible]	[illegible]	1724.00	7800.[illegible]	1734.27	0.00	1734.99	24.63	6.84	1140.85	1571.55
4.436	1.00	1737.50	1739.70	1724.00	7800.00	1734.20	0.00	1735.07	59.98	7.51	1038.36	1007.12
4.456	98.00	1737.50	1739.70	1724.00	7800.00	1734.78	0.00	1735.66	60.40	7.53	1035.26	1003.62
4.457	1.00	0.00	0.00	1724.00	7800.00	1735.15	0.00	1735.75	18.49	6.21	1256.06	1813.86
4.470	60.00	0.00	0.00	1724.80	6800.00	1735.13	0.00	1736.09	42.76	7.86	864.95	1039.92
4.570	562.00	0.00	0.00	1725.00	6800.00	1737.53	0.00	1738.09	28.96	6.02	1129.11	1263.52
4.680	540.00	0.00	0.00	1725.20	6800.00	1738.87	0.00	1739.39	20.34	5.82	1167.44	1507.92
4.695	100.00	0.00	0.00	1725.60	6800.00	1739.44	0.00	1739.58	3.58	2.96	2296.15	3593.84
4.696	1.00	1740.30	1740.90	1725.60	6800.00	1739.23	0.00	1739.80	105.42	6.09	1116.33	662.29
4.714	98.00	1740.30	1740.90	1725.60	6800.00	1740.34	0.00	1741.04	138.27	6.72	1014.42	578.26
4.715	1.00	0.00	0.00	1725.60	6800.00	1741.11	0.00	1741.22	2.43	2.62	2722.29	4363.85
4.720	50.00	0.00	0.00	1726.30	6800.00	174 .98	0.00	1741.40	7.88	5.22	1302.66	2422.46
4.750	150.00	0.00	0.00	1726.30	6800.00	1741.19	0.00	1741.52	7.55	5.15	1321.43	2474.56
4.940	965.00	0.00	0.00	1730.10	6800.00	1741.68	0.00	1742.41	10.60	5.85	1161.53	2088.46
5.180	1277.00	0.00	0.00	1732.10	6800.00	1743.31	0.00	1743.96	13.38	6.48	1048.85	1859.34
5.205	150.00	0.00	0.00	1732.90	6800.00	1743.80	0.00	1744.19	7.38	4.99	1362.31	2503.72

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRINS	EG	10K*S	VCH	AREA	.01K
	5.206	1.00	1749.50	1750.70	1732.90	6800.00	1743.78	0.00	1744.21	16.02	5.29	1284.84	1699.02
	5.224	98.00	1749.50	1750.70	1733.10	6800.00	1743.90	0.00	1744.46	22.36	6.01	1132.04	1437.90
	5.225	1.00	0.00	0.00	1733.10	6800.00	1744.14	0.00	1744.52	7.03	4.91	1385.84	2564.24
	5.240	60.00	0.00	0.00	1733.10	6800.00	1744.04	0.00	1744.73	14.64	6.68	1017.90	1777.26
*	5.460	1198.00	0.00	0.00	1741.40	6800.00	1747.88	1747.88	1750.55	105.46	13.11	518.67	662.16
	5.750	1532.00	0.00	0.00	1744.80	6800.00	1753.81	0.00	1754.72	11.56	7.68	885.37	1999.61
	5.780	150.00	0.00	0.00	1744.80	6800.00	1754.03	0.00	1754.89	10.62	7.46	911.19	2086.76
	5.794	70.00	0.00	0.00	1745.70	6800.00	1754.45	0.00	1755.04	7.34	6.16	1104.27	2510.71
	5.795	1.00	1763.50	1764.40	1745.70	6800.00	1754.40	0.00	1755.09	15.01	6.64	1024.27	1755.16
	5.813	98.00	1763.50	1764.40	1745.90	6800.00	1754.47	0.00	1755.36	21.16	7.58	896.69	1478.25
	5.814	1.00	0.00	0.00	1745.90	6800.00	1754.92	0.00	1755.47	6.58	5.94	1145.62	2650.32
	5.820	30.00	0.00	0.00	1745.90	6800.00	1754.69	0.00	1755.77	28.05	8.35	813.94	1283.89
	5.960	730.00	0.00	0.00	1749.40	6800.00	1756.98	0.00	1758.37	42.87	9.45	719.22	1038.55
	6.160	1056.00	0.00	0.00	1751.80	6400.00	1761.28	0.00	1762.82	40.63	9.97	642.07	1004.07
	6.350	1004.00	0.00	0.00	1760.20	6400.00	1767.53	0.00	1769.81	132.90	12.14	527.37	555.16

*	6.400	292.00	0.00	0.00	1766.40	6400.00	1773.56	1773.56	1775.84	169.19	12.17	550.79	492.02
	6.570	656.00	0.00	0.00	1768.53	6400.00	1775.89	0.00	1780.65	26.47	7.00	914.62	1243.85
	6.710	780.00	0.00	0.00	1769.30	6400.00	1781.44	0.00	1782.31	16.98	7.48	855.18	1553.32

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.420	7800.00	1733.90	0.00	0.00	0.00	143.49	0.00
4.437	7800.00	1734.27	0.00	0.37	0.00	128.22	90.00
4.438	7800.00	1734.20	0.00	-0.07	0.00	119.98	1.00
4.456	7800.00	1734.78	0.00	0.59	0.00	114.28	98.00
4.457	7800.00	1735.15	0.00	0.37	0.00	131.19	1.00
4.470	6800.00	1735.13	0.00	-0.02	0.00	110.38	60.00
4.570	6800.00	1737.53	0.00	2.40	0.00	125.72	562.00
4.680	6800.00	1738.87	0.00	1.34	0.00	115.14	540.00
4.695	6500.00	1739.44	0.00	0.58	0.00	173.95	100.00
4.696	6800.00	1739.23	0.00	-0.22	0.00	173.95	1.00
4.714	6800.00	1740.34	0.00	1.12	0.00	201.74	98.00
4.715	6800.00	1741.11	0.00	0.77	0.00	445.83	1.00
4.720	6800.00	1740.98	0.00	-0.14	0.00	136.30	50.00
4.750	6800.00	1741.10	0.00	0.13	0.00	136.77	150.00
4.940	6800.00	1741.88	0.00	0.77	0.00	128.49	965.00
5.160	6800.00	1743.31	0.00	1.43	0.00	116.39	1277.00
5.205	6800.00	1743.80	0.00	0.49	0.00	145.95	150.00
5.206	6800.00	1743.78	0.00	-0.02	0.00	142.65	1.00
5.224	6800.00	1743.90	0.00	0.12	0.00	128.07	98.00
5.225	6800.00	1744.14	0.00	0.24	0.00	147.00	1.00
5.240	6800.00	1744.04	0.00	-0.10	0.00	115.71	60.00
* 5.460	6800.00	1747.88	0.00	3.84	0.00	97.02	1198.00
5.750	6800.00	1753.81	0.00	5.93	0.00	114.98	1532.00
5.780	6800.00	1754.03	0.00	0.22	0.00	115.80	150.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5.794	6800.00	1754.45	0.00	0.42	0.00	143.44	70.00
5.795	6800.00	1754.40	0.00	-0.05	0.00	136.12	1.00
5.813	6800.00	1754.47	0.00	0.07	0.00	121.94	98.00
5.814	6800.00	1754.92	0.00	0.45	0.00	144.95	1.00
5.820	6800.00	1754.69	0.00	-0.23	0.00	126.32	30.00
5.960	6800.00	1756.98	0.00	2.29	0.00	128.84	730.00
6.160	6400.00	1761.28	0.00	4.30	0.00	101.38	1056.00
6.350	6400.00	1767.53	0.00	6.25	0.00	89.88	1004.00
* 6.400	6400.00	1773.56	0.00	6.03	0.00	164.70	292.00
6.570	6400.00	1779.89	0.00	6.33	0.00	100.36	856.00
6.710	6400.00	1781.44	0.00	1.56	0.00	89.37	780.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 5.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.460 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 5.460 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 6.400 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.400 PROFILE= 1 MINIMUM SPECIFIC ENERGY

1

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

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1*************************************************
*  WATER SURFACE PROFILES                       *
*  VERSION OF NOVEMBER 1976                     *
*  UPDATED AUGUST 1983                          *
*                                               *
*  RUN DATE  28-APR-88 TIME   16:28:51          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
*****************************************
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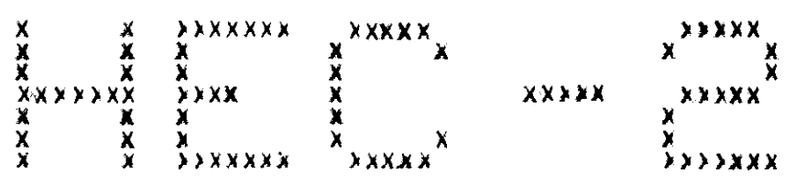


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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*****************************************************

C
T1        CORPCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR (MIDDLE REACH)                    12/87     SRM
J1  ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          0.         2.         1.         0.  0.000000       0.00       0.5        0.  1733.900       0.000
J2  NPROF       IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
         -1.000     0.000     -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
        150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC          0.050      0.027      0.045      0.100      0.300      0.000      0.000      0.000      0.000      0.000
GT          1.000   7800.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NH          5.000      0.045   3380.000      0.130   8050.000      0.050   9935.000      0.045  10132.000      0.100
NH      15890.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 10000
X1          4.420     27.000   9935.000  10132.000    992.000    992.000    992.000      0.000      0.000      0.000
GR       1746.000   2045.000   1744.000   2335.000   1740.000   3060.000   1740.000   3515.000   1736.000   3675.000
GR       1736.000   3880.000   1736.000   6450.000   1736.500   8050.000   1739.700   9731.000   1739.700   9794.000
GR       1737.400   9813.000   1737.000   9935.000   1724.900   9956.000   1724.800  10000.000   1724.200  10052.000
GR       1732.300  10072.000   1735.400  10095.000   1737.600  10132.000   1737.600  10179.000   1738.000  10236.000
GR       1736.000  10750.000   1735.600  11580.000   1736.000  12365.000   1740.000  13440.000   1744.000  14870.000
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GR	1744.000	15500.000	1743.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	6.000	1.000	1.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3896.000	0.130	8066.000	0.050	9933.000	0.045	10067.000	0.100
NH	15905.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.600
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

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CENTERLINE STATION AT 10000

X1	4.438	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9954.000	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9984.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000
GR	1736.000	10013.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.600
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

GT	1.000	6800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10097.000	0.050
NH	11360.000	0.100	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.47	41.000	9919.000	10058.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1752.000	1595.000	1748.000	2035.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	6200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9903.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000	1738.800	10072.000	1737.100	10078.000

GR	1737.700	10230.000	1737.100	10310.000	1738.400	10373.000	1739.400	10392.000	1737.300	10397.000
GR	1738.400	10434.000	1736.000	11360.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000

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GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	5914.000	0.055
NH	10061.000	0.070	10493.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.570	43.000	9914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1756.000	1380.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1738.000	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1736.800	9862.000	1737.300	9886.000	1735.100	9914.000	1736.500	9930.000	1725.600	9953.000
GR	1725.600	9974.000	1727.100	9989.300	1725.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.800	10040.000	1737.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	10089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384.000	1739.400	10403.000
GR	1737.300	10408.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1746.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10050.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.660	23.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
GR	1760.000	1219.000	1756.000	1580.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1740.000	2770.000	1740.000	2855.000	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000
GR	1740.000	9320.000	1740.000	9935.000	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000
GR	1725.200	9989.000	1725.200	10010.000	1728.900	10012.000	1728.100	10025.000	1733.800	10029.000
GR	1737.500	10040.000	1738.800	10050.000	1740.000	10065.000	1744.000	13035.000	1748.000	13975.000
GR	1752.000	14925.000	1756.000	15500.000	1760.000	16450.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10087.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.695	23.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1735.000	1735.000	0.000
GR	1760.000	1239.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.696	37.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9930.000	1733.000	9931.500	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300
GR	1733.000	9977.700	1725.600	9977.800	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900
GR	1725.600	10024.000	1725.600	10068.600	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200
GR	1733.000	10036.600	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000

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ET	0.000	7.100	0.000	0.000	0.000	0.000	9661.000	10200.000	0.000	0.000

**** CHARLESTON BOULEVARD ****
2# DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE	STATION AT	10000							
X1	4.714	37.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000	
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000	
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000	
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000	
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	
GR	1733.000	9928.000	1733.000	9933.500	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200	
GR	1733.000	9979.700	1725.600	9979.800	1725.600	10020.400	1733.000	10020.500	1733.000	10025.900	
GR	1725.600	10026.000	1725.600	10066.600	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200	
GR	1733.000	10386.800	1740.000	13787.000	1744.000	13879.000	1748.000	14019.000	1752.000	14969.000	
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	
ET	0.000	7.100	0.000	0.000	0.000	0.000	9661.000	10200.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	4.715	23.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1740.500	1740.500	0.000	
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000	
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10067.000	1744.000	13079.000	1748.000	14019.000	
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	
NH	8.000	0.130	1810.000	0.045	3680.000	0.130	8875.000	0.040	9954.000	0.035	
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	4.720	35.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000	
X3	0.000	0.000	0.000	8875.000	1744.000	10240.000	1744.000	0.000	0.000	0.000	
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000	
GR	1740.000	2950.000	1740.000	3035.000	1744.000	3050.000	1744.000	3880.000	1740.000	4875.000	
GR	1740.000	6390.000	1744.000	7295.000	1744.000	8875.000	1742.300	9833.000	1741.900	9954.000	
GR	1729.600	9976.000	1729.200	9988.000	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000	
GR	1729.600	10028.000	1729.900	10055.000	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000	
GR	1743.500	10096.000	1743.900	10137.000	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000	
GR	1744.000	13400.000	1748.000	14690.000	1752.000	15375.000	1756.000	15925.000	1760.000	16450.000	
NC	1.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000	
NH	8.000	0.130	1810.000	0.045	3680.000	0.130	8875.000	0.040	9954.000	0.035	
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000	
X3	0.000	0.000	0.000	8875.000	1744.000	10240.000	1744.000	0.000	0.000	0.000	

NH	8.000	0.130	3095.000	0.045	3280.000	0.100	7641.000	0.045	9897.000	0.035	
NH	10659.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000	
GR	1760.000	1720.000	1756.000	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000	
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9889.000	
GR	1745.600	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000	
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000	
GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000	
GR	1744.000	13550.000	1748.000	14300.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000	
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000	
NH	8.000	0.130	3500.000	0.045	3575.000	0.130	5425.000	0.045	9339.000	0.065	
NH	9905.000	0.035	10040.000	0.130	17355.000	0.040	18900.000	0.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	5.180	29.000	9905.000	10040.000	1100.000	1277.000	1277.000	0.000	0.000	0.000	
GR	1760.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1748.000	3500.000	
GR	1748.000	3555.000	1752.000	3575.000	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000	
GR	1748.000	9330.000	1753.500	9803.000	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000	

GR	1732.100	9937.000	1732.300	9978.000	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000
GR	1735.900	10017.000	1737.300	10029.000	1750.800	10040.000	1753.700	10071.000	1752.000	10200.000
GR	1752.000	14875.000	1756.000	15780.000	1760.000	17355.000	1770.000	18900.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045
NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17630.000	0.040	18935.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.205	24.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1732.900	9948.000	1732.900	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.206	38.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000
GR	1732.900	9950.000	1748.600	9950.100	1748.600	9951.500	1732.900	9951.600	1732.900	9982.800
GR	1748.600	9982.900	1748.600	9984.300	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700
GR	1748.600	10017.100	1732.900	10017.200	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900
GR	1732.900	10050.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

**** STEWART AVENUE ****

2' DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	5.224	38.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000
GR	1733.100	9948.000	1748.600	9948.100	1748.600	9953.500	1733.100	9953.600	1733.100	9980.800
GR	1748.600	9980.900	1748.600	9986.300	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700
GR	1748.600	10019.100	1733.100	10019.200	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900
GR	1733.100	10052.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15235.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.225	24.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1733.100	9948.000	1733.100	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
NH	10.000	0.040	2530.000	0.100	3430.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.130	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.240	32.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1772.000	2005.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3430.000	1748.000	3445.000	1748.000	3515.000	1752.000	3530.000	1752.000	3725.000
GR	1748.000	5155.000	1748.000	6415.000	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000
GR	1751.800	9826.000	1751.900	9875.000	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000
GR	1734.700	9988.000	1733.300	9997.000	1733.300	10002.000	1736.900	10017.000	1738.300	10029.000
GR	1751.800	10040.000	1754.700	10071.000	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000
GR	1760.000	17670.000	1770.000	18830.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3110.000	0.130	8140.000	0.040	9916.000	0.35	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.460	36.000	9916.000	10051.000	1158.000	1198.000	1198.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2325.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000
GR	1760.000	3110.000	1761.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	8140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10005.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.000	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000
GR	1758.900	10191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18395.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	2785.000	0.120	4110.000	0.045	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000
		CENTERLINE STATION AT 100.0								
X1	5.750	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9605.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1756.600	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.200	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10368.000	1764.800	10376.000	1763.800	10430.000	1764.000	10465.000
GR	1764.000	10815.000	1760.500	10990.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17865.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.000	2.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10891.000	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.794	22.000	9911.000	10051.000	50.000	150.000	70.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1764.400	1762.500
BT	9983.500	1764.400	1762.500	10087.600	1764.400	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9948.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		**** BONANZA AVENUE ****								
		2* DEBRIS LOADING								
		NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	5.813	36.000	9911.000	10091.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1764.400	1762.500
BT	9985.500	1764.400	1762.500	10087.600	1764.400	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1762.500	9945.700	1762.500	9950.900
GR	1745.900	9951.000	1745.900	9981.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500

GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.814	22.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9805.000	0.050	9913.000	0.032
NH	10069.000	0.040	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.820	30.000	9913.000	10069.000	20.000	30.000	30.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4650.000	1760.000	5405.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9321.000	1763.300	9857.000	1761.400	9883.000	1760.300	9897.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1749.400	9966.000	1747.600	9973.000
GR	1747.500	10027.000	1760.100	10069.000	1759.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7955.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	15015.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.960	26.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
GR	1776.000	1875.000	1772.000	2370.000	1768.000	3780.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	9888.000	1761.800	9897.000	1759.700	9913.000
GR	1751.800	9941.000	1752.000	9953.000	1752.000	9966.000	1749.400	9973.000	1749.400	10027.000
GR	1762.400	10069.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GT	1.000	5900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5698.000	0.040	9939.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.160	48.000	9939.000	10054.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
GR	1780.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1765.100	9786.000	1766.900	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1760.700	10044.000	1764.900	10054.000
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10228.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.300	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000

NH	8.000	0.090	7425.000	0.130	9676.000	0.040	9949.000	0.045	10057.000	0.040
NH	19339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000

GR	1764.000	11300.000	1780.000	11770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1764.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.600	11125.000	1772.800	11172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000
NH	6.000	0.090	8115.000	0.130	9546.000	0.045	10057.000	0.100	11580.000	0.040
NH	16070.000	0.130	18375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	6.400	34.000	9946.000	10057.000	300.000	270.000	292.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9862.000	1775.100	10128.000	1774.000	0.000	0.000	0.000
GR	1784.000	1215.000	1780.000	2265.000	1776.000	6430.000	1776.000	8115.000	1776.000	9640.000
GR	1775.600	9710.000	1773.900	9772.000	1773.900	9799.000	1773.600	5810.000	1775.100	9862.000
GR	1775.000	9946.000	1767.100	9964.000	1767.100	9983.000	1766.400	9991.000	1766.400	9995.000
GR	1766.400	10009.000	1770.200	10033.000	1773.300	10057.000	1773.000	10073.000	1772.700	10087.000
GR	1774.000	10128.000	1772.600	10143.000	1772.600	10183.000	1772.600	10224.000	1766.600	10239.000
GR	1766.600	10247.000	1774.100	10268.000	1776.200	10297.000	1776.000	10850.000	1776.000	11980.000
GR	1776.000	13470.000	1778.900	16070.000	1780.000	17095.000	1784.000	18375.000	0.000	0.000
NH	7.000	0.090	9865.000	0.100	9932.000	0.045	10035.000	0.045	10610.000	0.100
NH	11340.000	0.045	15790.000	0.130	18305.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	6.570	29.000	9932.000	10035.000	920.000	500.000	856.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1788.000	35.000	1784.000	1250.000	1780.300	4925.000	1780.000	8865.000	1777.800	9808.000
GR	1777.800	9828.000	1778.800	9854.000	1781.600	9932.000	1778.600	9945.000	1769.300	9972.000
GR	1769.300	9932.000	1768.500	9991.000	1768.500	10009.000	1773.300	10020.000	1773.300	10032.000
GR	1781.600	10035.000	1778.600	10061.000	1777.500	10085.000	1775.600	10129.000	1779.600	10224.000
GR	1776.800	10433.000	1776.000	10475.000	1776.000	10610.000	1780.000	11340.000	1780.000	15790.000
GR	1780.000	17135.000	1784.000	17605.000	1788.000	18025.000	1790.000	18305.000	0.000	0.000
NH	9.000	0.130	4690.000	0.100	13425.000	0.130	14809.000	0.130	14942.000	0.035
NH	15039.000	0.045	16195.000	0.100	16755.000	0.045	21140.000	0.130	22860.000	0.000
		CENTERLINE	STATION AT	15000						
X1	6.710	42.000	14942.000	15039.000	650.000	450.000	780.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	14942.000	1784.800	15039.000	1784.800	0.000	0.000	0.000
GR	1796.000	2630.000	1792.000	3960.000	1792.000	4690.000	1784.000	8200.000	1784.000	12020.000
GR	1784.000	13425.000	1780.000	14065.000	1780.000	14680.000	1777.400	14809.000	1777.600	14835.000
GR	1778.500	14910.000	1779.000	14914.000	1784.800	14942.000	1773.000	14956.000	1769.300	14987.000
GR	1769.300	14997.000	1769.300	15012.000	1771.900	15025.000	1784.800	15039.000	1781.900	15040.000
GR	1781.900	15071.000	1781.000	15110.000	1781.300	15136.000	1781.200	15150.000	1781.200	15167.000
GR	1780.000	15195.000	1782.100	15222.000	1782.100	15298.000	1781.800	15387.000	1775.800	15404.000
GR	1779.800	15461.000	1781.600	15472.000	1781.000	15531.000	1780.000	15640.000	1780.000	15710.000
GR	1782.000	16195.000	1782.000	16755.000	1784.000	21140.000	1784.000	21860.000	1788.000	22235.000
GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.420

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 10000

4.42	9.70	1733.90	0.00	1733.90	1734.71	0.81	0.00	0.00	1737.00
7800.	0.	7800.	0.	0.	1080.	0.	0.	0.	1737.60
0.00	0.00	7.22	0.00	0.000	0.045	0.000	0.000	1724.20	5940.38
0.003369	992.	992.	992.	0	0	0	0.00	143.49	10083.87

CCHV= 1.30 CEHV= 0.50
1490 NH CARD USED
*SECNO 4.437

CENTERLINE STATION AT 10000

4.44	10.27	1734.27	0.00	0.00	1734.99	0.73	0.26	0.03	1736.00	
7800.	0.	7800.	0.	0.	1141.	0.	2.	0.	1736.00	
0.00	0.00	6.84	0.00	0.000	0.045	0.000	0.000	1724.00	9935.89	
0.002463	93.	90.	90.	3	0	0	0.00	128.22	10064.11	

*SECNO 4.438

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

CENTERLINE STATION AT 10000

4.44	10.20	1734.20	0.00	0.00	1735.07	0.88	0.00	0.08	1736.00	
7800.	0.	7800.	0.	0.	1038.	0.	2.	0.	1736.00	
0.00	0.00	7.51	0.00	0.000	0.045	0.000	0.000	1724.00	9936.16	
0.005998	1.	1.	1.	2	0	0	0.00	119.98	10063.86	

*SECNO 4.456

3265 DIVIDED FLOW

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTR	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

**** NELLIS BOULEVARD ****
1% DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

4.46	10.78	1734.78	0.00	0.00	1735.66	0.88	0.59	0.00	1736.00	
7800.	0.	7800.	0.	0.	1035.	0.	5.	1.	1736.00	
0.01	0.00	7.53	0.00	0.000	0.045	0.000	0.000	1724.00	9935.03	
0.006040	98.	98.	98.	2	0	0	0.00	114.28	10064.99	

*SECNO 4.457

CENTERLINE STATION AT 10000

4.46	11.15	1735.15	0.00	0.00	1735.75	0.60	0.00	0.08	1736.00	
7800.	0.	7800.	0.	0.	1256.	0.	5.	1.	1736.00	
0.01	0.00	6.21	0.00	0.000	0.045	0.000	0.000	1724.00	9934.41	
0.001849	1.	1.	1.	2	0	0	0.00	131.15	10065.59	

FLOW DISTRIBUTION FOR SECNO= 4.46 CWSEL= 1735.15

STA= 9934. 10067.
PER Q= 100.0
AREA= 1256.1
VEL= 6.2

1490 NH CARD USED
*SECNO 4.470

CENTERLINE STATION AT 10000

4.47	10.33	1735.13	0.00	0.00	1736.09	0.96	0.16	0.18	1736.90	
6800.	0.	6800.	0.	0.	865.	0.	6.	1.	1738.80	

0.01	0.00	7.86	0.00	0.000	0.045	0.000	0.000	1724.80	9922.59
0.004276	60.	60.	60.	2	0	0	0.00	110.38	10032.97

0
CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.570

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1739.10 ELREA= 1738.80

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CENTERLINE STATION AT 10000

4.57	12.53	1737.53	0.00	0.00	1738.09	0.56	1.96	0.04	1739.10
6800.	0.	6800.	0.	0.	1125.	0.	19.	2.	1738.80
0.04	0.00	6.02	0.00	0.000	0.055	0.000	0.000	1725.00	9925.46
0.002896	350.	562.	800.	3	0	0	0.00	125.72	10051.18

0
1490 NH CARD USED
*SECNO 4.680

CENTERLINE STATION AT 10000

4.68	13.67	1738.87	0.00	0.00	1739.39	0.53	1.30	0.00	1740.00
6800.	0.	6800.	0.	0.	1167.	0.	33.	4.	1740.00
0.06	0.00	5.82	0.00	0.000	0.100	0.000	0.000	1725.20	9935.56
0.002034	350.	540.	550.	2	0	0	0.00	115.14	10050.70

0
CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.695

CENTERLINE STATION AT 10000

4.70	13.84	1739.44	0.00	0.00	1739.58	0.14	0.07	0.12	1740.30
6800.	0.	6800.	0.	0.	2296.	0.	37.	4.	1740.50
0.07	0.00	2.96	0.00	0.000	0.050	0.000	0.000	1725.60	9913.02
0.000358	100.	100.	100.	2	0	0	0.00	173.95	10086.97

0
*SECNO 4.696

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

CENTERLINE STATION AT 10000

4.70	13.63	1739.23	0.00	0.00	1739.80	0.58	0.00	0.22	1740.30
6800.	0.	6800.	0.	0.	1116.	0.	37.	4.	1740.00
0.07	0.00	6.09	0.00	0.000	0.050	0.000	0.000	1725.60	9913.03
0.010542	1.	1.	1.	2	0	0	-1081.87	173.95	10086.98

0
*SECNO 4.714

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

3470 ENCROACHMENT STATIONS= 9661.0 10200.0 TYPE= 1 TARGET= 535.000
**** CHARLESTON BOULEVARD ****
2" DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

4.71	14.74	1740.34	0.00	0.00	1741.04	0.70	1.18	0.06	1740.30
6800.	0.	6795.	1.	0.	1012.	2.	40.	4.	1740.00
0.07	0.10	6.72	0.54	0.130	0.050	0.100	0.000	1725.60	9894.95
0.013827	98.	98.	98.	3	0	0	-1276.29	201.74	10096.69

0
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.715

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9661.0 10200.0 TYPE= 1 TARGET= 535.000
CENTERLINE STATION AT 10000

4.72	15.51	1741.11	0.00	0.00	1741.22	0.11	0.00	0.18	1740.30
6800.	15.	6785.	1.	130.	2587.	6.	40.	4.	1740.50
0.07	0.11	2.62	0.11	0.130	0.050	0.100	0.000	1725.60	9661.00
0.000243	1.	1.	1.	2	0	0	0.00	445.83	10106.83

1490 NH CARD USED
*SECNO 4.720

3470 ENCROACHMENT STATIONS= 8875.0 10240.0 TYPE= 1 TARGET= 1365.000
ELENCL= 1744.00 ELENCR= 1744.00
CENTERLINE STATION AT 10000

4.72	12.68	1740.98	0.00	0.00	1741.40	0.42	0.02	0.16	1741.90
6800.	0.	6800.	0.	0.	1303.	0.	42.	5.	1743.50
0.08	0.00	5.22	0.00	0.040	0.035	0.100	0.000	1728.30	9955.67
0.000788	50.	50.	50.	2	0	0	0.00	136.30	10091.97

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.750

3470 ENCROACHMENT STATIONS= 8875.0 10240.0 TYPE= 1 TARGET= 1365.000
ELENCL= 1744.00 ELENCR= 1744.00
CENTERLINE STATION AT 10000

4.75	12.30	1741.13	0.00	0.00	1741.52	0.41	0.12	0.00	1741.90
6800.	0.	6800.	0.	0.	1321.	0.	47.	5.	1743.50
0.09	0.00	5.15	0.00	0.040	0.035	0.100	0.000	1728.30	9955.42
0.000755	150.	150.	150.	2	0	0	0.00	136.77	10092.19

1490 NH CARD USED
*SECNO 4.940

CENTERLINE STATION AT 10000

4.94	11.78	1741.88	0.00	0.00	1742.41	0.53	.86	0.04	1745.60
6800.	0.	6800.	0.	0.	1162.	0.	74.	8.	1747.90
0.13	0.00	5.85	0.00	0.040	0.035	0.100	0.000	1730.10	9519.89
0.001060	750.	965.	965.	2	0	0	0.00	128.49	10048.37

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SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	WCL	I&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIA	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 5.180

CENTERLINE STATION AT 10000

5.18	11.21	1743.31	0.00	0.00	1743.96	0.65	1.52	0.04	1750.50
6800.	0.	6800.	0.	0.	1049.	0.	106.	12.	1750.80
0.19	0.00	6.48	0.00	0.040	0.035	0.100	0.000	1732.10	9917.51
0.001338	1100.	1277.	1277.	2	0	0	0.00	116.39	10033.90

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.205

CENTERLINE STATION AT 10000

5.20	10.90	1743.80	0.00	0.00	1744.19	0.39	0.15	0.08	1750.20	
6800.	0.	6800.	0.	0.	1362.	0.	111.	12.	1745.90	
0.19	0.00	4.99	0.00	0.040	0.035	0.100	0.000	1732.90	9927.21	
0.000738	150.	150.	150.	2	0	0	0.00	145.95	10073.16	

0
*SECNO 5.206

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

CENTERLINE STATION AT 10000

5.21	10.88	1743.78	0.00	0.00	1744.21	0.43	0.00	0.02	1748.60	
6800.	0.	6800.	0.	0.	1285.	0.	111.	12.	1746.60	
0.19	0.00	5.29	0.00	0.040	0.035	0.100	0.000	1732.90	9925.75	
0.001602	1.	1.	1.	2	0	0	0.00	142.65	10074.25	

*SECNO 5.224

3265 DIVIDED FLOW

337 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.5 MAX ELLC= 1750.70

**** STEWART AVENUE ****
2* DEBRIS LOADING
NORMAL BRIDGE

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CENTERLINE STATION AT 10000

5.22	10.80	1743.90	0.00	0.00	1744.46	0.56	0.18	0.06	1748.60	
6800.	0.	6800.	0.	0.	1132.	0.	113.	13.	1748.60	
0.20	0.00	5.01	0.00	0.040	0.035	0.100	0.000	1733.10	9925.01	
0.002236	98.	98.	98.	2	0	0	0.00	128.87	10074.99	

0
*SECNO 5.225

CENTERLINE STATION AT 10000

5.22	11.04	1744.14	0.00	0.00	1744.52	0.37	0.00	0.06	1750.20	
6800.	0.	6800.	0.	0.	1386.	0.	113.	13.	1749.90	
0.20	0.00	4.91	0.00	0.040	0.035	0.100	0.000	1733.10	9926.69	
0.000703	1.	1.	1.	2	0	0	0.00	147.00	10073.69	

0
1490 NH CARD USED
*SECNO 5.240

CENTERLINE STATION AT 10000

5.24	10.94	1744.04	0.00	0.00	1744.73	0.69	0.06	0.16	1751.50	
6800.	0.	6800.	0.	0.	1018.	0.	115.	13.	1751.80	
0.20	0.00	6.68	0.00	0.040	0.035	0.100	0.000	1733.10	9917.97	
0.001464	60.	60.	60.	2	0	0	0.00	115.71	10083.68	

0
CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.460

3301 HV CHANGED MORE THAN HVINS

3665 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.46	6.48	1747.88	1747.88	0.00	1750.55	2.67	3.72	0.59	1756.20	
6800.	0.	6800.	0.	0.	515.	0.	136.	16.	1758.00	
0.23	0.00	13.11	0.00	0.130	0.035	0.100	0.000	1741.40	9934.94	
0.010546	1198.	1198.	1198.	20	11	0	0.00	97.02	10031.96	

0

149(NH CARD USED
*SECNO 5.75(

3361 HV CHANGED MORE THAN HVINS

	CENTERLINE STATION AT 10000								
5.75	9.01	1753.81	0.00	0.00	1754.72	0.92	4.00	0.18	1758.60
6800.	0.	6800.	0.	0.	885.	0.	161.	15.	1763.80
0.28	0.00	7.68	0.00	0.130	0.025	0.100	0.000	1744.80	9940.07
0.001156	1532.	1532.	1532.	4	0	0	0.00	114.98	10055.05

SECNO	DEPTH	CHSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	ANCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.780

	CENTERLINE STATION AT 10000								
5.78	9.23	1754.03	0.00	0.00	1754.89	0.86	0.17	0.01	1758.60
6800.	0.	6800.	0.	0.	911.	0.	164.	20.	1763.80
0.29	0.00	7.46	0.00	0.130	0.025	0.100	0.000	1744.80	9939.60
0.001062	150.	150.	150.	2	0	0	0.00	115.80	10055.41

CCHV= 0.30(CEHV= 0.500
149(NH CARD USED
*SECNO 5.794

	CENTERLINE STATION AT 10000								
5.79	8.75	1754.45	0.00	0.00	1755.14	0.69	0.06	0.08	1764.40
6800.	0.	6800.	0.	0.	1104.	0.	166.	20.	1763.50
0.29	0.00	6.15	0.00	0.130	0.025	0.100	0.000	1745.70	9928.30
0.000734	50.	70.	150.	2	0	0	0.00	143.44	10071.74

*SECNO 5.795

3265 DIVIDED FLOW

3379 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

	CENTERLINE STATION AT 10000								
5.80	8.70	1754.40	0.00	0.00	1755.09	0.68	0.00	0.05	1764.40
6800.	0.	6800.	0.	0.	1024.	0.	166.	20.	1763.50
0.29	0.00	6.64	0.00	0.130	0.025	0.100	0.000	1745.70	9929.37
0.001501	1.	1.	1.	2	0	0	0.00	136.12	10070.68

*SECNO 5.613

3265 DIVIDED FLOW

3379 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

**** BONANZA AVENUE ****
2* DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

SECNO	DEPTH	CHSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	ANCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
5.81	8.57	1754.47	0.00	0.00	1755.36	0.89	0.17	0.10	1764.40
6800.	0.	6800.	0.	0.	897.	0.	168.	20.	1763.50
0.29	0.00	7.58	0.00	0.130	0.025	0.100	0.000	1745.90	9928.46
0.002116	98.	98.	98.	2	0	0	0.00	121.94	10071.59

*SECNO 5.814

CENTERLINE STATION AT 10000

5.81	9.02	1754.92	0.00	0.00	1755.47	0.55	0.00	0.10	1764.40
6800.	0.	6800.	0.	0.	1146.	0.	168.	20.	1763.50
0.29	0.00	5.94	0.00	0.130	0.025	0.100	0.000	1745.90	9927.55
0.000656	1.	1.	1.	2	0	0	0.00	144.95	10072.50

1490 NH CARD USED
*SECNO 5.820

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.82	6.91	1754.41	0.00	0.00	1756.07	1.66	0.04	0.56	1760.70
6800.	0.	6800.	0.	0.	657.	0.	168.	20.	1760.10
0.30	0.00	10.35	0.00	0.130	0.032	0.100	0.000	1747.50	9927.31
0.005460	30.	30.	30.	3	0	0	0.00	122.74	10050.05

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.960

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.96	8.46	1757.86	0.00	0.00	1758.89	1.03	2.76	0.06	1759.70
6800.	0.	6800.	0.	0.	836.	0.	181.	23.	1762.40
0.32	0.00	8.14	0.00	0.130	0.032	0.100	0.000	1749.40	9919.51
0.002766	750.	730.	650.	3	0	0	0.00	134.83	10054.34

1490 NH CARD USED
*SECNO 6.160

CENTERLINE STATION AT 10000

6.16	9.19	1760.99	0.00	0.00	1762.43	1.44	3.42	0.12	1763.00
5900.	0.	5900.	0.	0.	613.	0.	198.	25.	1764.90
0.35	0.00	9.62	0.00	0.130	0.032	0.100	0.000	1751.80	9944.84
0.003944	1056.	1056.	1056.	3	0	0	0.00	99.85	10044.70

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 6.350

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

6.35	6.95	1767.15	0.00	0.00	1769.37	2.21	6.70	0.23	1771.80
5900.	0.	5900.	0.	0.	494.	0.	211.	28.	1771.80
0.37	0.00	11.94	0.00	0.130	0.045	0.100	0.000	1760.20	9958.92
0.013671	11 .	1034.	950.	3	0	0	.00	88.30	10047.22

1490 NH CARD USED

*SECNO 6.400

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9862.0 10128.0 TYPE= 1 TARGET= 266.000
ELENCL= 1775.10 ELENCR= 1774.00
CENTERLINE STATION AT 10000

6.40	6.29	1773.29	1773.29	0.00	1775.49	2.20	4.48	0.00	1775.00
5900.	0.	5887.	13.	0.	494.	14.	215.	28.	1773.30
0.38	0.00	11.92	0.93	0.130	0.045	0.100	0.000	1766.40	9949.90
0.017334	300.	292.	270.	3	5	0	0.00	154.74	10105.49

1490 NH CARD USED
*SECNO 6.570

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1781.60 ELREA= 1781.60

CENTERLINE STATION AT 10000

6.57	11.01	1779.51	0.00	0.00	1780.21	0.70	4.57	0.15	1781.60
5900.	0.	5900.	0.	0.	877.	0.	228.	31.	1781.60
0.42	0.00	6.73	0.00	0.130	0.045	0.100	0.000	1768.50	9934.47
0.002560	920.	856.	500.	4	0	0	0.00	99.77	10034.24

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SECNO	DEPTH	C*SEL	CRIWS	*SELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TRA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1491 NH CARD USED
*SECNO 6.710

3470 ENCROACHMENT STATIONS= 14942.0 15039.0 TYPE= 1 TARGET= 97.000
ELENCL= 1784.80 ELENCR= 1784.80
CENTERLINE STATION AT 15000

6.71	11.72	1781.02	0.00	0.00	1781.82	0.81	1.58	0.03	1784.80
5900.	0.	5900.	0.	0.	817.	0.	243.	32.	1784.80
0.45	0.00	7.22	0.00	0.130	0.035	0.100	0.000	1769.30	14946.49
0.001649	65.	780.	450.	2	0	0	0.00	88.40	15034.89

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1
28-APR-88 16:28:52 PAGE 20

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
4.420	0.00	0.00	0.00	1724.20	7800.00	1733.90	0.00	1734.71	33.69	7.22	1079.79	1343.89
4.437	90.00	0.00	0.00	1724.00	7800.00	1734.27	0.00	1734.99	24.63	6.84	1140.85	1571.59
4.438	1.00	1737.50	1739.70	1724.00	7800.00	1734.20	0.00	1735.07	59.98	7.51	1038.36	1007.12
4.456	98.00	1737.50	1739.70	1724.00	7800.00	1734.78	0.00	1735.66	60.40	7.53	1035.26	1003.62
4.457	1.30	0.00	0.00	1724.00	7800.00	1735.15	0.00	1735.75	18.49	6.21	1256.06	1813.86
4.470	60.00	0.00	0.00	1724.80	6800.00	1735.13	0.00	1736.09	42.76	7.86	864.95	1039.92
4.570	562.00	0.00	0.00	1725.00	6800.00	1737.53	0.00	1738.09	28.96	6.02	1129.11	1263.55
4.680	340.00	0.00	0.00	1725.20	6800.00	1738.67	0.00	1739.39	20.34	5.82	1167.44	1507.92
4.695	100.00	0.00	0.00	1725.60	6800.00	1739.44	0.00	1739.58	3.58	2.96	2296.15	3593.86
4.696	1.00	1740.30	1740.90	1725.60	6800.00	1739.23	0.00	1739.80	105.42	6.09	1116.33	662.29
4.714	98.00	1740.30	1740.90	1725.60	6800.00	1741.34	0.00	1741.64	138.27	6.72	1014.42	578.26
4.715	1.00	0.00	0.00	1725.60	6800.00	1741.11	0.00	1741.22	2.43	2.62	2722.29	4363.85
4.720	50.00	0.00	0.00	1728.30	6800.00	1740.58	0.00	1741.40	7.88	5.22	1302.66	2422.46
4.750	150.00	0.00	0.00	1728.30	6800.00	1741.13	0.00	1741.52	7.55	5.15	1321.43	2474.56
4.940	965.00	0.00	0.00	1730.10	6800.00	1741.88	0.00	1742.41	10.60	5.85	1161.53	2088.46
5.180	1277.00	0.00	0.00	1732.10	6800.00	1743.31	0.00	1743.96	13.38	6.48	1048.85	1859.34
5.205	150.00	0.00	0.00	1732.90	6800.00	1743.83	0.00	1744.19	7.38	4.99	1362.31	2503.72

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26-APR-66 16:28:52

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
5.206	1.00	1749.50	1750.70	1732.90	6800.00	1743.78	0.00	1744.21	16.02	5.29	1284.84	1699.02
5.224	98.00	1749.50	1750.70	1733.10	6800.00	1743.90	0.00	1744.46	22.36	6.01	1132.04	1437.90
5.225	1.00	0.00	0.00	1733.10	6800.00	1744.14	0.00	1744.52	7.03	4.91	1385.84	2564.24
5.240	60.00	0.00	0.00	1733.10	6800.00	1744.04	0.00	1744.73	14.64	6.68	1017.90	1777.26
* 5.460	1198.00	0.00	0.00	1741.40	6800.00	1747.88	1747.88	1750.55	105.46	13.11	518.67	662.16
5.750	1532.00	0.00	0.00	1744.80	6800.00	1753.81	0.00	1754.72	11.56	7.68	885.37	1999.61
5.780	150.00	0.00	0.00	1744.80	6800.00	1754.03	0.00	1754.89	10.62	7.46	911.19	2086.76
5.794	75.00	0.00	0.00	1745.70	6800.00	1754.45	0.00	1755.04	7.34	6.16	1104.27	2510.71
5.795	1.00	1763.50	1764.40	1745.70	6800.00	1754.40	0.00	1755.09	15.01	6.64	1024.27	1755.16
5.813	98.00	1763.50	1764.40	1745.90	6800.00	1754.47	0.00	1755.36	21.16	7.58	896.69	1478.25
5.814	1.00	0.00	0.00	1745.90	6800.00	1754.92	0.00	1755.47	6.58	5.94	1145.62	2650.32
5.820	30.00	0.00	0.00	1746.50	6800.00	1754.41	0.00	1756.07	54.60	10.35	656.89	920.29

	5.960	730.00	0.00	0.00	1745.40	6800.00	1767.86	0.00	1758.89	27.66	8.14	835.63	1292.91
	6.160	1156.00	0.00	0.00	1751.80	5900.00	1768.99	0.00	1762.43	39.44	9.62	613.07	939.45
	6.350	1104.00	0.00	0.00	1760.20	5900.00	1767.15	0.00	1769.37	136.71	11.94	494.24	504.60
*	6.400	292.00	0.00	0.00	1766.40	5900.00	1773.29	1773.29	1775.49	173.34	11.92	507.63	448.15
	6.570	856.00	0.00	0.00	1768.50	5900.00	1779.51	0.00	1780.21	25.60	6.73	876.63	1165.99
	6.710	780.00	0.00	0.00	1769.30	5900.00	1781.02	0.00	1781.83	16.49	7.22	817.21	1453.00

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.420	7800.00	1733.90	0.00	0.00	0.00	143.49	0.00
4.437	7800.00	1734.27	0.00	0.37	0.00	128.22	90.00
4.438	7800.00	1734.20	0.00	-0.07	0.00	119.98	1.00
4.456	7800.00	1734.78	0.00	0.59	0.00	114.28	98.00
4.457	7800.00	1735.15	0.00	0.37	0.00	131.19	1.00
4.470	6800.00	1735.13	0.00	-0.02	0.00	110.38	60.00
4.570	6800.00	1737.53	0.00	2.40	0.00	125.72	562.00
4.680	6800.00	1738.87	0.00	1.34	0.00	115.14	540.00
4.695	6800.00	1739.44	0.00	0.58	0.00	173.95	100.00
4.696	6800.00	1739.23	0.00	-0.22	0.00	173.95	1.00
4.714	6800.00	1740.34	0.00	1.12	0.00	201.74	98.00
4.715	6800.00	1741.11	0.00	0.77	0.00	445.83	1.00
4.720	6800.00	1740.98	0.00	-0.14	0.00	136.30	50.00
4.750	6800.00	1741.10	0.00	0.13	0.00	136.77	150.00
4.940	6800.00	1741.88	0.00	0.77	0.00	128.49	965.00
5.180	6800.00	1743.31	0.00	1.43	0.00	116.39	1277.00
5.205	6800.00	1743.80	0.00	0.49	0.00	145.55	150.00
5.206	6800.00	1743.78	0.00	-0.02	0.00	142.65	1.00
5.224	6800.00	1743.90	0.00	0.12	0.00	128.07	98.00
5.225	6800.00	1744.14	0.00	0.24	0.00	147.00	1.00
5.240	6800.00	1744.04	0.00	-0.10	0.00	115.71	60.00
* 5.460	6800.00	1747.88	0.00	3.84	0.00	97.02	1158.00

5.750	6800.00	1753.31	0.00	5.93	0.00	114.98	1532.00
5.780	6800.00	1754.03	0.00	0.22	0.00	115.80	150.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	5.794	6800.00	1754.45	0.00	0.42	0.00	143.44	70.00
	5.795	6800.00	1754.40	0.00	-0.05	0.00	136.12	1.00
	5.813	6800.00	1754.47	0.00	0.07	0.00	121.94	98.00
	5.814	6800.00	1754.92	0.00	0.45	0.00	144.55	1.00
	5.820	6800.00	1754.41	0.00	-0.51	0.00	122.74	30.00
	5.960	6800.00	1757.86	0.00	3.46	0.00	134.83	730.00
	6.160	5900.00	1760.99	0.00	3.13	0.00	99.85	1056.00
	6.350	5900.00	1767.15	0.00	6.16	0.00	88.30	1004.00
*	6.400	5900.00	1773.29	0.00	6.13	0.00	154.74	292.00
	6.570	5900.00	1779.51	0.00	6.22	0.00	95.77	856.00
	6.710	5900.00	1781.02	0.00	1.51	0.00	86.40	780.00

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28-APR-88 16:28:52 PAGE 24

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=     5.460  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     5.460  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     5.460  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     6.400  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.400  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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28-APR-88 16:31:15 PAGE 1

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

GR	1744.000	15503.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3896.000	0.130	8066.000	0.050	9933.000	0.045	10067.000	0.100
NH	15905.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

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		CENTERLINE STATION AT 10000								
X1	4.436	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1736.000	9933.000	1724.000	9954.000	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9984.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000
GR	1736.000	10013.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

QT	2.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10097.000	0.050
NH	11360.000	0.100	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.470	41.000	9919.000	10050.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1752.000	1595.000	1743.000	2035.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	8200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9902.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000	1738.800	10072.000	1737.100	10078.000

1**********
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 3-MAY-88 TIME 10:10:05 *
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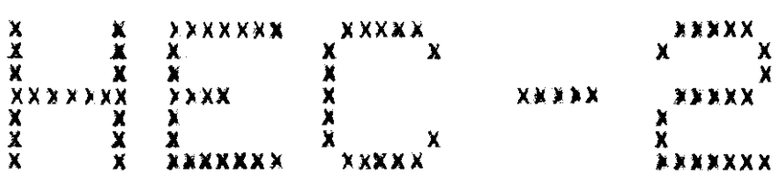
* U.S. ARMY CORPS OF ENGINEERS *
* THE HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET, SUITE D *
* DAVIS, CALIFORNIA 95616 *
* (916) 440-2105 (FTS) 448-2105 *
****



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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 51,52,53,54,55
MODIFICATION - 50,51,52,53,54,55
****

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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR (MIDDLE REACH)                    10/87     SRM

J1  ICHECK      INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.         2.        1.        0.  0.000000      0.00      0.0       0.  1738.400     0.000

J2  NPROF       IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      -1.000     1.000    -1.000      .000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.050     0.027     0.045     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       2.000 24000.000 84000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NH       5.000     0.045  3880.000     0.130  8050.000     0.050  9935.000     0.045 10132.000     0.100
NH   15892.000     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000     0.000
                SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 10000
X1       4.420    27.000  9935.000 10132.000   992.000   992.000   992.000     0.000     0.000     0.000
GR    1748.000  2045.000  1744.000  2325.000  1740.000  3060.000  1740.000  3515.000  1736.000  3675.000
GR    1736.000  3880.000  1736.000  6450.000  1736.500  8050.000  1735.700  9731.000  1739.700  9794.000
GR    1737.400  9813.000  1737.000  9935.000  1724.900  9956.000  1724.800 10000.000  1724.200 10052.000
GR    1732.300 10072.000  1735.400 10095.000  1737.600 10132.000  1737.600 10179.000  1738.000 10236.000
GR    1736.000 10750.000  1735.600 11580.000  1736.000 12365.000  1740.000 13440.000  1744.000 14870.000
```

GR	1737.700	1 237.000	1737.100	10310.000	1738.400	10373.100	1739.400	10392. 00	1737.300	10397.000
GR	1738.400	10434.000	1736.000	11360.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000

GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	5914.000	0.055
NH	10061.000	0.070	10493.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.570	43.000	5914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
GR	1756.000	1330.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1738.000	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1738.800	9862.000	1737.300	9886.000	1739.100	9914.000	1736.900	9930.000	1725.600	9953.000
GR	1725.600	9974.000	1727.100	9989.000	1726.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.800	10040.000	1727.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	1 089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384. 00	1739.400	10403.000
GR	1737.300	10405.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1748.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10059.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.660	26.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
GR	1760.000	1210.000	1756.000	1580.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000	1740.000	9320.000	1740.000	9935.000
GR	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000	1726.200	9989.000	1725.200	10010.000
GR	1728.900	10012.000	1723.100	10025.000	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000
GR	1740.000	10065.000	1744.000	13035.000	1748.000	13975.000	1752.000	14925.000	1756.000	15500.000
GR	1760.000	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10087.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.695	21.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1725.600	10072.200	1733.000	10086.800
GR	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000
GR	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	11800.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.696	35.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1733.000	9930.000	1733.000	9931.500
GR	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300	1733.000	9977.700	1725.600	9977.800
GR	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900	1725.600	10024.000	1725.600	10068.600
GR	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200	1733.000	10086.800	1740.000	10087.000
GR	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000

ET	0.000	4.100	0.000	0.000	11800.000	0.000	0.000	0.000	0.000	0.000

**** CHARLESTON BOULEVARD ****
2° DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE	STATION AT	10000						
X1	4.714	35.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000

BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1741.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1733.000	9928.000	1733.000	9933.500
GR	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200	1733.000	9979.700	1725.600	9979.800
GR	1725.600	10020.400	1733.000	10020.500	1733.000	10025.900	1725.600	10026.000	1725.600	10066.600
GR	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200	1733.000	10086.800	1740.000	10087.000
GR	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000
ET	1.000	4.100	0.000	0.000	118000.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.715	21.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1725.600	10072.200	1733.000	10086.800
GR	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000
GR	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3680.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	118000.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.720	33.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000
GR	1744.000	3050.000	1744.000	3680.000	1740.000	4875.000	1740.000	6390.000	1744.000	7295.000
GR	1744.000	8675.000	1742.300	9833.000	1741.900	9954.000	1729.600	9976.000	1729.200	9988.000
GR	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000	1729.600	10028.000	1729.900	10055.000
GR	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000	1743.500	10096.000	1743.900	10137.000
GR	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000	1744.000	13400.000	1748.000	14690.000
GR	1752.000	15375.000	1755.000	15925.000	1760.000	16450.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.100	0.000	0.100
NH	6.000	0.130	1810.000	0.045	3680.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NH	6.000	0.130	3395.000	0.045	3280.000	0.100	7641.000	0.045	9857.000	0.035
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10097.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000
GR	1760.000	1720.000	1756.000	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9889.000
GR	1745.600	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000

GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000
GR	1744.000	13551.000	1748.000	14300.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.130	5425.000	0.045	9330.000	0.065	9505.000	0.035	10040.000	0.130
NH	17355.000	0.040	18900.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.180	27.000	9905.000	10140.000	1100.000	1277.000	1277.000	0.000	0.000	0.000
GR	1760.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1752.000	3575.000
GR	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000	1748.000	9330.000	1753.500	9803.000
GR	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000	1732.100	9937.000	1732.300	9978.000
GR	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000	1735.500	10017.000	1737.300	10029.000
GR	1750.800	10040.000	1753.700	10071.000	1752.000	10200.000	1752.000	14875.000	1756.000	15780.000
GR	1760.000	17355.000	1770.000	18900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045

NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17630.000	0.040	18935.000	0.000

CENTERLINE STATION AT 10000

X1	5.205	22.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000	1732.900	9948.000	1732.900	10052.000
GR	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000
GR	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.206	36.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000	1732.900	9950.000	1748.600	9950.100
GR	1748.600	9951.500	1732.900	9951.600	1732.900	9982.800	1748.600	5982.900	1748.600	9984.300
GR	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700	1748.600	10017.100	1732.900	10017.200
GR	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900	1732.900	10050.000	1748.600	10085.000
GR	1752.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000
GR	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**** STEWART AVENUE ****
2# DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

X1	5.224	36.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000	1733.100	9948.000	1748.600	9948.100
GR	1748.600	9953.500	1733.100	9953.600	1733.100	9980.800	1748.600	9980.900	1748.600	9986.300
GR	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700	1748.600	10019.100	1733.100	10019.200
GR	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900	1733.100	10052.000	1748.600	10085.000
GR	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000
GR	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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CENTERLINE STATION AT 10000

X1	5.225	22.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000	1733.100	9948.000	1733.100	10052.000
GR	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000
GR	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000

NH	10.000	0.040	2530.000	0.100	3430.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.030	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.240	30.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1772.000	2005.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3430.000	1752.000	3530.000	1752.000	3725.000	1748.000	5155.000	1748.000	6415.000
GR	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000	1751.800	9826.000	1751.900	9875.000
GR	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000	1734.700	9988.000	1733.300	9997.000
GR	1733.300	10002.000	1736.900	10017.000	1738.300	10029.000	1751.800	10040.000	1754.700	10071.000
GR	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000	1760.000	17670.000	1770.000	18830.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3110.000	0.130	8140.000	0.040	9516.000	0.035	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.460	36.000	9916.000	10051.000	1198.000	1198.000	1198.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2325.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000

GR	1760.000	3110.000	1760.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	8140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10005.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.000	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000
GR	1758.900	10191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	2785.000	0.120	4110.000	0.145	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000
ET	0.000	4.100	0.000	0.000	10244.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.750	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9605.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.600	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.300	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10368.000	1764.800	10376.000	1763.800	10430.000	1764.000	10465.000
GR	1764.000	11815.000	1760.500	10590.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17365.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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		CENTERLINE STATION AT 10000								
X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10091.000	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10256.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.794	22.000	9911.000	10091.000	50.000	150.000	70.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.200	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10256.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9983.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9548.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10256.000	0.000	0.000	0.000	0.000	0.000
		**** BONANZA AVENUE ****								
		2' DEBRIS LOADING								
		NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	5.813	36.000	9911.000	10091.000	58.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9985.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1762.500	9945.700	1762.500	9950.900

GR	1745.900	9951.000	1745.900	9980.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500
GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ET	0.000	4.100	0.000	0.000	10256.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.814	22.000	9911.000	10091.800	1.000	1.000	1.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.100	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9605.000	0.050	9913.000	0.032
NH	10069.000	0.040	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10430.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.820	30.000	9913.000	10069.800	30.000	30.000	30.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4650.000	1760.000	5475.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.800	9857.000	1761.400	9883.000	1760.300	9897.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1749.400	9966.000	1745.900	9973.000
GR	1745.900	10027.000	1760.100	10069.000	1759.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	8.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7995.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	15315.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.960	26.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
GR	1776.000	1875.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	9888.000	1761.800	9897.000	1759.700	9913.000
GR	1751.800	9941.000	1752.000	9953.000	1752.000	9966.000	1749.400	9973.000	1749.400	10027.000
GR	1762.400	10069.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	9693.000	0.040	9939.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10900.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.160	48.000	9939.000	10154.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
GR	1780.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1765.100	9786.000	1766.500	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1766.700	10044.000	1764.900	10054.100
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10228.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000

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NH	8.000	0.090	7425.000	0.130	9676.000	0.040	9549.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	5100.000	10260.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
		CONFLUENCE OF WASHINGTON AVE CHANNEL								

X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000
X4	2.000	1774.000	6600.000	1776.000	10260.000	0.000	0.000	0.000	0.000	0.000
GR	1784.000	1180.000	1780.000	1770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.600	10125.000	1772.300	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000
ET	2.000	23540.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.090	8115.000	0.130	9946.000	0.045	10057.000	0.100	11980.000	0.040
NH	16070.000	0.130	18375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10297.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.400	34.000	9946.000	10057.000	300.000	270.000	292.000	0.000	0.000	0.000
GR	1784.000	1215.000	1780.000	2265.000	1776.000	6430.000	1776.000	8115.000	1776.000	9640.000
GR	1775.600	9711.000	1773.900	9772.000	1773.900	9799.000	1773.600	9810.000	1775.100	9862.000
GR	1775.000	9946.000	1767.100	9964.000	1767.100	9983.000	1766.400	9991.000	1766.400	9995.000
GR	1766.400	10009.000	1773.200	10033.000	1773.300	10057.000	1773.000	10073.000	1772.700	10087.000
GR	1774.000	10128.000	1772.600	10143.000	1772.600	10183.000	1772.600	10224.000	1766.600	10239.000
GR	1766.600	10247.000	1774.100	10268.000	1776.200	10297.000	1776.000	10850.000	1776.000	11980.000
GR	1776.000	13470.000	1778.900	16070.000	1780.000	17095.000	1784.000	18375.000	0.000	0.000
NH	7.000	0.090	8865.000	0.100	9932.000	0.045	10035.000	0.045	10610.000	0.100
NH	11340.000	0.045	15790.000	0.130	18305.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	4925.000	10035.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.570	29.000	9932.000	10035.000	920.000	500.000	856.000	0.000	0.000	0.000
GR	1768.000	35.000	1784.000	1250.000	1780.000	4925.000	1780.000	8865.000	1777.800	9808.000
GR	1777.800	9828.000	1778.800	9894.000	1781.600	9932.000	1770.600	9945.000	1769.300	9972.000
GR	1769.300	9982.000	1768.500	9991.000	1768.500	10009.000	1773.300	10020.000	1773.300	10032.000
GR	1781.600	10035.000	1778.600	10061.000	1777.500	10085.000	1779.600	10129.000	1779.600	10224.000
GR	1776.800	10433.000	1776.000	10475.000	1776.000	10610.000	1780.000	11340.000	1780.000	15790.000
GR	1780.000	17135.000	1784.000	17805.000	1788.000	18025.000	1790.000	18305.000	0.000	0.000
NH	9.000	0.130	4691.000	0.100	13425.000	0.130	14809.000	0.030	14542.000	0.035
NH	15039.000	0.045	16195.000	0.100	16755.000	0.045	21140.000	0.130	22860.000	0.000
ET	0.000	4.100	0.000	10000.000	15040.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 15000								
X1	6.710	42.000	14542.000	15039.000	650.000	450.000	780.000	0.000	0.000	0.000
GR	1796.000	2680.000	1792.000	3960.000	1792.000	4690.000	1784.000	8200.000	1784.000	12020.000
GR	1784.000	13425.000	1780.000	14065.000	1780.000	14680.000	1777.400	14809.000	1777.600	14835.000
GR	1776.500	14910.000	1779.000	14914.000	1784.800	14942.000	1773.000	14956.000	1769.300	14987.000
GR	1769.300	14997.000	1769.300	15012.000	1771.900	15025.000	1784.800	15039.000	1781.900	15040.000
GR	1781.900	15071.000	1781.000	15110.000	1781.300	15136.000	1781.200	15150.000	1781.200	15167.000
GR	1780.000	15195.000	1782.100	15222.000	1782.100	15298.000	1781.800	15387.000	1779.800	15404.000
GR	1779.800	15461.000	1781.600	15472.000	1781.000	15531.000	1780.000	15640.000	1780.000	15710.000
GR	1782.000	16195.000	1782.000	16755.000	1784.000	21140.000	1784.000	21860.000	1788.000	22235.000

GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPHID	ENDST

*PROF 1

CCHV= 0.100 CSHV= 0.300
1490 NH CARD USED

*SECNO 4.420

3265 DIVIDED FLOW

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 10000

4.42	14.20	1738.40	0.00	1738.40	1738.57	0.17	0.00	0.00	1737.00
24000.	9213.	9593.	5194.	11314.	1853.	5764.	0.	0.	1737.60
0.00	0.81	5.18	0.90	0.109	0.045	0.100	0.000	1724.20	3579.00
0.001280	992.	992.	992.	3	0	0	0.00	8674.39	13010.01

0
CCHL= 0.300 CCHV= 0.500
1490 NH CARD USED
*SECNO 4.437

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

4.44	14.49	1738.49	0.00	0.00	1738.69	0.20	0.10	0.01	1736.00
24000.	9378.	9536.	5385.	12034.	1702.	6160.	40.	18.	1736.00
0.01	0.78	5.60	0.83	0.106	0.045	0.100	0.000	1724.00	3591.40
0.001037	90.	90.	90.	2	0	0	0.00	8759.22	13049.22

0
*SECNO 4.438

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

CENTERLINE STATION AT 10000

4.44	14.71	1738.71	0.00	0.00	1738.74	0.03	0.00	0.05	1736.00
24000.	12921.	3819.	7260.	13048.	1423.	6766.	41.	18.	1736.00
0.01	0.99	2.68	1.07	0.108	0.045	0.100	0.000	1724.00	3582.55
0.001587	1.	1.	1.	2	0	0	-518.04	8987.93	13108.66

0
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SECNO	DEPTH	QCSEL	QRIWS	QSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	WCL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.456

3265 DIVIDED FLOW

337[illegible] NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.5[illegible] MAX ELLC= 1739.7[illegible]

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

4.46	14.86	1738.86	0.00	0.00	1738.89	0.03	0.14	0.00	1736.00
24000.	13265.	3339.	7395.	13922.	1359.	7224.	90.	39.	1736.00
0.03	0.35	2.46	1.02	0.107	0.045	0.100	0.000	1724.00	3576.57
0.001354	98.	98.	98.	2	0	0	-520.40	9115.50	13148.85

*SECNO 4.457

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

4.46	14.81	1738.81	0.00	0.00	1738.94	0.14	0.00	0.06	1736.00

```
   24000.    10089.     8506.     5405.    13860.     1744.     7116.       90.       39.    1736.00
     0.03     0.73      4.88      0.76     0.104     0.045     0.100     0.000   1724.00    3578.75
 0.000760       1.        1.        1.         2         0         0      0.00   9068.95   13134.19

 FLOW DISTRIBUTION FOR SECNO=      4.46          CWSEL=   1738.81

 STA=    3579.     3896.     6466.     8066.     9278.     9533.    10067.    11595.    12380.    13134.
  PER Q=    5.1      18.8      18.0       5.2       2.8      35.4      11.9       8.4       2.3
   AREA=   732.8    7212.1    4090.0    1397.3     428.1    1744.0    3698.1    2359.9    1058.2
    VEL=     1.7       0.6       0.6       0.9       1.6       4.9       0.8       0.9       0.5

 1490 NH CARD USED
 *SECNO 4.470

 3265 DIVIDED FLOW

                  CENTERLINE STATION AT 10000
      4.47     13.92   1738.72      0.00      0.00   1739.20      0.48      0.08      0.17   1736.90
   24000.      7787.    13617.     5595.     6837.     1293.     3267.      114.       50.    1738.80
     0.04      1.14      8.21      1.71     0.117     0.045     0.064     0.000   1724.80    3734.79
 0.003410       60.       60.       60.         2         0         0      0.00   6545.01   12422.31

1
   3-MAY-88    11:13:16                                                                    PAGE   13

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TLA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 CCHV=    0.100 CEHV=    0.300
 1490 NH CARD USED
 *SECNO 4.570

 3265 DIVIDED FLOW

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                  CENTERLINE STATION AT 10000
      4.57     15.98   1740.98   1740.98      0.00   1741.43      0.44      1.84      0.00   1739.10
   24000.      7213.    12035.     4752.     7455.     1623.     2544.      243.      134.    1738.80
     0.07      0.97      7.42      1.87     0.109     0.055     0.370     0.000   1725.20    2686.31
 0.003303       350.      562.      800.         4        10         0      0.00   8448.87   12225.27
0
 1490 NH CARD USED
 *SECNO 4.680
                  CENTERLINE STATION AT 10000
      4.68     17.09   1742.29      0.00      0.00   1742.62      0.34      1.18      0.01   1740.00
   24000.     11621.    10963.     1416.    13239.     1605.     1944.      375.      209.    1740.00
     0.11      0.83      6.83      0.73     0.130     0.100     0.100     0.000   1725.20    3943.14
 0.002008       350.      540.      550.         2         0         0      0.00   7820.76   11763.90
0
 CCHV=    0.300 CEHV=    0.500
 1490 NH CARD USED
 *SECNO 4.695
                  CENTERLINE STATION AT 10000
      4.70     16.91   1742.51      0.00      0.00   1742.77      0.26      0.13      0.02   1740.30
   24000.      8443.    14807.      750.    14023.     2825.     1719.      415.      227.    1740.50
     0.12      0.60      5.23      0.44     0.130     0.050     0.100     0.000   1725.60    3983.03
 0.000858       170.      100.      100.         2         0         0      0.00   7818.27   11801.31
0
 *SECNO 4.696

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

                  CENTERLINE STATION AT 10000
```

4.70	17.19	1742.79	0.00	0.00	1742.84	0.05	0.00	0.06	1740.30	
24000.	19278.	4722.	0.	15718.	1515.	0.	416.	227.	1740.00	
0.12	1.23	3.12	0.10	0.130	0.050	0.100	0.000	1725.60	3931.79	
0.003090	1.	1.	1.	2	0	0	-1303.50	6155.29	10087.08	

0
1

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.714

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

**** CHARLESTON BOULEVARD ****
2* DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

4.71	17.47	1743.07	0.00	0.00	1743.10	0.04	0.27	0.00	1740.30
24000.	19958.	4042.	0.	17385.	1459.	0.	456.	241.	1740.00
0.13	1.15	2.77	0.09	0.130	0.050	0.100	0.000	1725.60	3881.85
0.002369	98.	98.	98.	2	0	0	-1303.50	6205.25	10087.09

0
*SECNO 4.715
CENTERLINE STATION AT 10000

4.72	17.39	1742.98	0.00	0.00	1743.19	0.20	0.00	0.08	1740.30
24000.	10162.	13838.	0.	16887.	2912.	0.	457.	241.	1740.50
0.13	0.60	4.75	0.00	0.130	0.050	0.100	0.000	1725.60	3896.70
0.[illegible]68	1.	1.	1.	2	0	1	0.00	6190.37	10087.08

0
1490 NH CARD USED
*SECNO 4.720

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

4.72	14.47	1742.77	1742.77	0.00	1744.16	1.39	0.06	0.59	1741.90
24000.	6736.	17264.	0.	6161.	1553.	0.	473.	246.	1743.50
0.14	1.09	11.12	0.00	0.128	0.035	0.100	0.000	1728.30	4186.08
0.002968	50.	50.	50.	4	10	0	0.00	3356.54	10094.84

0
CCHV= 0.100 CEHV= 0.300
1491 NH CARD USED
*SECNO 4.750
1

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

4.75	15.64	1743.34	0.00	0.00	1744.53	0.59	0.29	0.08	1741.90
24000.	10157.	13841.	2.	10642.	1719.	11.	507.	260.	1743.50
0.14	0.95	8.05	0.20	0.118	0.035	0.100	0.000	1728.30	3894.64
0.001377	150.	150.	150.	4	0	0	0.00	4658.28	10179.38

1490 NH CARD USED
*SECNO 4.940

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

4.94	13.53	1743.63	0.00	0.00	1748.24	4.61	2.51	1.21	1745.60
24000.	0.	24000.	0.	0.	1393.	0.	633.	302.	1747.90
0.16	0.00	17.23	0.00	0.096	0.035	0.100	0.000	1730.10	9916.17
0.7768	751.	965.	965.	8	0	0	.00	135.29	10051.47

1490 NH CARD USED
*SECNO 5.180

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.18	18.11	1751.21	0.00	3.31	1750.45	0.24	1.77	0.44	1750.50
24000.	13067.	10913.	0.	11694.	1912.	0.	830.	375.	1750.80
0.27	1.12	5.71	0.00	0.054	0.035	0.100	0.000	1732.10	4086.11
0.000583	1100.	1277.	1277.	3	0	0	0.00	5567.49	10039.51

CCHV= 0.30 CEHV= 1.600
1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWIC	ENDST

*SECNO 5.205

CENTERLINE STATION AT 10000

5.20	17.42	1750.32	0.00	0.00	1750.53	0.21	0.08	0.01	1750.20
24000.	11816.	12193.	1.	12626.	2396.	16.	879.	395.	1749.90
0.28	0.94	5.09	0.09	0.057	0.035	0.130	0.000	1732.90	3945.65
0.000450	150.	150.	150.	3	0	0	0.00	6213.12	10158.77

*SECNO 5.206

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

CENTERLINE STATION AT 10000

5.21	17.63	1750.53	0.00	0.00	1750.58	0.05	0.00	0.05	1748.60
24000.	18345.	5655.	5.	13913.	2108.	35.	879.	395.	1748.60
0.28	1.32	2.68	0.15	0.057	0.035	0.130	0.000	1732.90	3911.07
0.000797	1.	1.	1.	2	0	0	-504.04	6303.00	10214.07

*SECNO 5.224

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

**** STEWART AVENUE ****
2* DEBRIS LOADING

NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.22	17.52	1750.62	0.00	0.00	1750.66	0.04	0.08	0.00	1748.60
24000.	19205.	4787.	7.	14402.	1878.	45.	916.	409.	1748.60
0.30	1.33	2.55	0.16	0.057	0.035	0.130	0.000	1733.10	3997.88
0.000781	98.	98.	98.	2	0	0	-505.14	6321.64	10219.52

0

*SECNO 5.225

CENTERLINE STATION AT 10000

5.22	17.46	1750.56	0.00	0.00	1750.72	0.16	0.00	0.06	1750.20
24000.	12764.	11232.	4.	14038.	2408.	38.	916.	409.	1749.90
0.30	0.91	4.66	0.11	0.057	0.035	0.130	0.000	1733.10	3997.64
0.000375	1.	1.	1.	2	0	0	0.00	6292.38	10200.03

0

149. NH CARD USED

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV LEFT/RIGHT
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	SSTA
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	ENDST
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	

*SECNO 5.24

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.24	17.16	1750.26	0.00	0.00	1751.10	0.84	0.04	0.34	1751.50
24000.	7976.	16024.	0.	6701.	1788.	0.	933.	417.	1751.80
0.30	1.19	8.96	0.00	0.073	0.035	0.130	0.000	1733.10	4343.64
0.001529	60.	60.	60.	2	0	0	0.00	4126.75	10038.75

0

CCHV= 0.100 CEHV= 0.300

1490 NH CARD USED

*SECNO 5.46

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.46	14.25	1755.65	1755.65	0.00	1756.92	1.27	2.50	0.13	1756.20
24000.	7992.	16008.	0.	6453.	1450.	0.	1159.	511.	1756.00
0.34	1.24	11.34	0.00	0.130	0.035	0.130	0.000	1741.40	5466.66
0.003019	1198.	1198.	1198.	20	9	0	0.00	2709.60	10049.71

0

1490 NH CARD USED

*SECNO 5.750

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.75	13.66	1756.46	0.00	0.00	1762.65	4.20	4.85	0.88	1758.60
24000.	0.	24000.	0.	0.	1460.	0.	1323.	561.	1763.80
0.37	0.00	16.44	0.00	0.040	0.025	0.130	0.000	1744.80	9930.31
0.003330	1532.	1532.	1532.	3	0	0	0.00	132.16	10062.47

0

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.760

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.78	15.05	1759.85	0.00	0.00	1763.15	3.30	0.41	0.09	1758.60
24000.	5.	23995.	0.	4.	1646.	0.	1329.	561.	1763.80
0.37	1.28	14.58	0.00	0.040	0.025	0.130	0.000	1744.80	9924.07
0.002296	150.	150.	150.	3	0	0	0.00	140.62	10064.69

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.79	18.30	1764.00	0.00	0.00	1764.13	0.13	0.02	0.95	1764.40
24000.	13003.	10997.	0.	14322.	2653.	0.	1340.	565.	1763.50
0.38	0.91	4.14	0.00	0.041	0.025	0.040	0.000	1745.70	4155.14
0.000143	50.	70.	150.	8	0	0	0.00	5749.23	10091.00

*SECNO 5.795

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

CENTERLINE STATION AT 10000

5.80	18.41	1764.11	0.00	0.00	1764.15	0.04	0.00	0.03	1764.40
24000.	18064.	5916.	0.	14950.	2266.	0.	1341.	565.	1763.50
0.38	1.21	2.61	0.00	0.041	0.025	0.040	0.000	1745.70	4144.82
0.000246	1.	1.	1.	2	0	0	-286.83	5811.85	10091.00

*SECNO 5.813

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

**** BONANZA AVENUE ****
2" DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.81	18.24	1764.14	0.00	0.00	1764.18	0.04	0.02	0.00	1764.40
24000.	18788.	5212.	0.	15056.	2006.	0.	1379.	578.	1763.50
0.40	1.25	2.60	0.00	0.041	0.025	0.040	0.000	1745.90	4143.10

```
 0.000260       98.       98.       98.        0         0         0  -290.19  5822.32 10091.00
0
 *SECNO 5.814

 3265 DIVIDED FLOW

                    CENTERLINE STATION AT 10000
      5.81     18.20  1764.13      0.00      0.00  1764.22      0.12      0.00      0.04  1764.40
    24000.     13359.   10641.       0.     14884.    2643.       0.     1380.      578.   1763.50
      0.40      0.90      4.03      0.00      0.041    0.025    0.040    0.000  1745.90  4145.89
 0.000136        1.        1.        1.         2         0         0     0.00  5805.32 10091.00
0
 1496 NH CARD USED
 *SECNO 5.820
                    CENTERLINE STATION AT 10000
      5.82     18.20  1764.13      0.00      0.00  1764.23      0.13      0.01      0.00  1760.70
    24000.     13866.    9511.     604.     12473.    2198.     418.     1391.      582.   1760.10
      0.40      1.11      4.33      1.45      0.046    0.032    0.040    0.000  1745.90  4188.09
 0.000268        30.       30.       30.         0         0         0     0.00  5993.92 10182.01
0
 CCHV=   0.100 CEHV=   0.300
 1496 NH CARD USED
 *SECNO 5.960

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
    Q         GLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TBA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 3725 CRITICAL DEPTH ASSUMED
                    CENTERLINE STATION AT 10000
      5.96     15.82  1765.22  1765.22      0.00  1766.14      0.92      0.38      0.24  1759.70
    24000.      5550.   17485.     965.     5173.    1944.     522.     1584.      677.   1762.40
      0.43      1.07      9.00      1.85      0.057    0.032    0.050    0.000  1749.40  5290.60
 0.001339       750.      730.      650.         2         5         0     0.00  5045.88 10336.48
0
 1490 NH CARD USED
 *SECNO 6.160

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                    CENTERLINE STATION AT 10000
      6.16     17.85  1768.85  1768.85      0.00  1770.51      1.66      1.80      0.22  1763.00
    24000.      2583.   17755.    3662.     1654.    1493.    1094.     1728.      772.   1764.90
      0.46      1.56     11.89      3.35      0.053    0.032    0.040    0.000  1751.80  7749.76
 0.002238      1056.     1056.     1056.        20         8         0     0.00  2756.24 10550.01
0
 1490 NH CARD USED
 *SECNO 6.350

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS
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3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 5100.0 10260.0 TYPE= 1 TARGET= 5160.000
CENTERLINE STATION AT 10000
CONFLUENCE OF WASHINGTON AVE CHANNEL

6.35	15.34	1775.54	1775.54	0.00	1776.65	1.11	2.90	0.05	1771.80
24000.	7162.	14403.	2436.	3999.	1354.	508.	1849.	847.	1771.80
0.50	1.83	10.64	4.79	0.066	0.045	0.040	0.000	1760.20	5100.00
0.003770	110.	1004.	950.	20	13	0	0.00	3278.27	10247.33

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XAR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 6.400
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

6.40	11.14	1777.44	1777.44	0.00	1778.30	0.86	1.40	0.02	1775.00
23540.	9113.	10375.	4052.	6461.	951.	1107.	1897.	876.	1773.30
0.51	1.41	10.91	3.66	0.107	0.045	0.100	0.000	1766.40	4934.73
0.006385	300.	292.	273.	20	13	0	0.00	5333.27	10268.00

1491 NH CARD USED
*SECNO 6.570

3470 ENCROACHMENT STATIONS= 4925.0 10035.0 TYPE= 1 TARGET= 5110.000
CENTERLINE STATION AT 10000

6.57	13.13	1781.69	0.00	0.00	1782.17	0.48	3.83	0.04	1781.60
23540.	14094.	9446.	0.	9650.	1098.	0.	2894.	985.	100000.00
0.57	1.46	8.60	0.00	0.094	0.045	0.100	0.000	1768.50	4925.00
0.003310	920.	356.	500.	3	0	0	0.00	5110.00	10035.00

1490 NH CARD USED
*SECNO 6.710

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 10000.0 15040.0 TYPE= 1 TARGET= 5040.000
CENTERLINE STATION AT 15000

6.71	14.30	1783.60	0.00	0.00	1784.73	1.12	2.36	0.19	1784.80
23540.	11352.	12188.	0.	4535.	1054.	1.	2219.	1035.	1784.80
0.59	2.50	11.57	0.52	0.080	0.035	0.045	0.000	1769.30	13488.22
0.003349	650.	780.	450.	3	0	0	0.00	1542.88	15040.00

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982

ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITWS	EG	10K*S	VCH	AREA	.01K
	4.429	0.00	0.00	0.00	1724.20	24000.00	1738.40	0.00	1738.57	12.80	5.18	18931.74	6709.16
	4.437	90.00	0.00	0.00	1724.00	24000.00	1738.49	0.00	1738.69	10.37	5.60	19895.66	7453.79
	4.438	1.00	1737.50	1739.70	1724.00	24000.00	1738.71	0.00	1738.74	15.87	2.68	21237.39	6023.64
	4.456	98.00	1737.50	1739.70	1724.00	24000.00	1738.86	0.00	1738.89	13.54	2.46	22504.71	6521.15
	4.457	1.00	0.00	0.00	1724.00	24000.00	1738.81	0.00	1738.94	7.60	4.88	22720.26	8706.25
	4.470	60.00	0.00	0.00	1724.80	24000.00	1738.72	0.00	1739.20	34.10	8.21	11397.32	4109.87
*	4.570	562.00	0.00	0.00	1725.00	24000.00	1740.98	1740.98	1741.43	33.03	7.42	11621.38	4175.69
	4.680	540.00	0.00	0.00	1725.20	24000.00	1742.29	0.00	1742.62	20.08	6.83	16787.42	5355.37
	4.695	100.00	0.00	0.00	1725.60	24000.00	1742.51	0.00	1742.77	8.58	5.23	18570.30	8191.72
	4.696	1.00	1740.30	1740.90	1725.60	24000.00	1742.79	0.00	1742.84	30.90	3.12	17233.02	4317.75
	4.714	98.00	1740.30	1740.90	1725.60	24000.00	1743.07	0.00	1743.10	23.85	2.77	18843.83	4909.80
	4.715	1.00	0.00	0.00	1725.60	24000.00	1742.98	0.00	1743.19	6.80	4.75	15795.70	9200.66
*	4.720	50.00	0.00	0.00	1728.30	24000.00	1742.77	1742.77	1744.16	29.68	11.12	7713.74	4405.47
	4.750	150.00	0.00	0.00	1728.30	24000.00	1743.94	0.00	1744.53	13.77	8.05	12371.34	6467.96
	4.940	965.00	0.00	0.00	1730.10	24000.00	1743.63	0.00	1748.24	77.68	17.23	1392.74	2722.97
	5.180	1277.00	0.00	0.00	1732.10	24000.00	1750.21	0.00	1750.45	5.83	5.71	13605.96	9936.29
	5.205	150.00	0.00	0.00	1732.90	24000.00	1750.32	0.00	1750.53	4.50	5.09	15037.51	11313.33

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITWS	EG	10K*S	VCH	AREA	.01K
	5.206	1.00	1749.50	1750.70	1732.90	24000.00	1750.53	0.00	1750.58	7.97	2.68	16053.55	8501.74
	5.224	98.00	1749.50	1750.70	1733.10	24000.00	1750.62	0.00	1750.66	7.81	2.55	16325.15	8585.59
	5.225	1.00	0.00	0.00	1733.10	24000.00	1750.56	0.00	1750.72	3.75	4.66	16483.98	12398.46
	5.240	60.00	0.00	0.00	1733.10	24000.00	1750.26	0.00	1751.10	15.29	8.96	8489.04	6137.57
*	5.460	1198.00	0.00	0.00	1741.40	24000.00	1755.65	1755.65	1756.92	30.19	11.04	7902.43	4368.15
	5.750	1532.00	0.00	0.00	1744.80	24000.00	1758.46	0.00	1762.65	33.30	16.44	1459.79	4159.07
	5.780	150.00	0.00	0.00	1744.80	24000.00	1759.85	0.00	1763.15	22.96	14.58	1645.36	5008.84

	5.794	70.00	0.00	0.00	1745.70	24000.00	1764.00	0.00	1764.13	1.43	4.14	16975.73	20059.71
	5.795	1.00	1763.50	1764.40	1745.70	24000.00	1764.11	0.00	1764.15	2.46	2.61	17215.71	15310.15
	5.813	98.00	1763.50	1764.40	1745.90	24000.00	1764.14	0.00	1764.18	2.60	2.60	17062.31	14882.33
	5.814	1.00	0.00	0.00	1745.58	24000.00	1764.10	0.00	1764.22	1.36	4.03	17527.02	20598.63
	5.820	30.00	0.00	0.00	1745.90	24000.00	1764.18	0.00	1764.23	2.68	4.33	15089.21	14666.47
*	5.960	730.00	0.00	0.00	1745.48	24000.00	1765.22	1765.22	1766.14	13.35	9.00	7638.61	6559.45
*	6.160	1056.00	0.00	0.00	1751.80	24000.00	1768.85	1768.85	1770.51	22.38	11.89	4240.76	5072.97
*	6.350	1004.00	0.00	0.00	1760.20	24000.00	1775.54	1775.54	1776.65	37.71	10.64	5771.37	3908.96
*	6.400	292.00	0.00	0.00	1766.40	23540.00	1777.44	1777.44	1778.30	63.85	10.91	8519.58	2945.97
	6.570	856.00	0.00	0.00	1768.50	23540.00	1781.69	0.00	1782.17	33.10	8.60	10748.06	4091.62
	6.710	780.00	0.00	0.00	1765.30	23540.00	1783.60	0.00	1784.73	33.45	11.57	5589.55	4067.62

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CHSEL	DIFWSP	DIFHSX	DIFKHS	TOPHID	XLCH
	4.420	24000.00	1738.40	0.00	0.00	0.00	8674.39	0.00
	4.437	24000.00	1738.49	0.00	0.09	0.00	8795.22	90.00
	4.438	24000.00	1738.71	0.00	0.22	0.00	8987.93	1.00
	4.456	24000.00	1738.86	0.00	0.15	0.00	9115.50	98.00
	4.457	24000.00	1738.81	0.00	-0.05	0.00	9068.95	1.00
	4.470	24000.00	1738.72	0.00	-0.09	0.00	6545.01	60.00
*	4.570	24000.00	1740.98	0.00	2.27	0.00	8448.87	562.00
	4.680	24000.00	1742.29	0.00	1.30	0.00	7820.76	540.00
	4.695	24000.00	1742.51	0.00	0.22	0.00	7818.27	100.00
	4.696	24000.00	1742.79	0.00	0.28	0.00	6155.29	1.00
	4.714	24000.00	1743.07	0.00	0.28	0.00	6205.25	98.00
	4.715	24000.00	1742.98	0.00	-0.08	0.00	6190.37	1.00
*	4.720	24000.00	1742.77	0.00	-0.22	0.00	3356.94	50.00
	4.750	24000.00	1743.94	0.00	1.17	0.00	4658.28	150.00
	4.940	24000.00	1743.63	0.00	-0.31	0.00	135.29	565.00
	5.180	24000.00	1750.21	0.00	6.57	0.00	5567.49	1277.00
	5.205	24000.00	1750.32	0.00	0.11	0.00	6213.12	150.00

5.206	24000.00	1750.53	0.00	0.21	0.00	6303.00	1.00
5.224	24000.00	1750.62	0.00	0.08	0.00	6321.64	98.00
5.225	24000.00	1750.56	0.00	-0.06	0.00	6292.38	1.00
5.240	24000.00	1750.26	0.00	-0.30	0.00	4126.75	60.00
* 5.460	24000.00	1755.65	0.00	5.39	0.00	2709.60	1198.00
5.750	24000.00	1758.46	0.00	2.81	0.00	132.16	1532.00
5.780	24000.00	1759.85	0.00	1.40	0.00	140.62	150.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5.794	24000.00	1764.00	0.00	4.15	0.00	5749.23	70.00
5.795	24000.00	1764.11	0.00	0.11	0.00	5811.85	1.00
5.813	24000.00	1764.14	0.00	0.03	0.00	5822.32	98.00
5.814	24000.00	1764.10	0.00	-0.04	0.00	5805.32	1.00
5.820	24000.00	1764.10	0.00	0.00	0.00	5993.92	30.00
* 5.960	24000.00	1765.22	0.00	1.11	0.00	5045.88	730.00
* 6.160	24000.00	1768.85	0.00	3.64	0.00	2796.24	1056.00
* 6.350	24000.00	1775.54	0.00	6.69	0.00	3278.27	1004.00
• 6.400	23540.00	1777.44	0.00	1.90	0.00	5333.27	292.00
6.570	23540.00	1781.69	0.00	4.25	0.00	5110.00	856.00
6.710	23540.00	1783.60	0.00	1.91	0.00	1542.88	780.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 4.570 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 4.570 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 4.720 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 4.720 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 5.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.460 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 5.460 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 5.960 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.960 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 6.160 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.160 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.160 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

```
 CAUTION  SECNO=     6.350  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     6.350  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     6.350  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     6.400  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     6.400  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     6.400  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

1
   3-MAY-88    10:10:39                                                    PAGE    1


  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************



 EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   3-MAY-88 TIME   10:19:13          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X           XXXXX    XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 500-YEAR (MIDDLE REACH)                    10/87     SRM

J1  ICHECK     INQ       NINN      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
       0.       3.        0.        0.  0.000000      0.00      0.5       0.  1739.800     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
    -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000      0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000      0.000     0.000

NC      0.050     0.027     0.045     0.100     0.300     0.000     0.000     0.000     0.000     0.000
GT      2.000 24000.000 84000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NH      5.000     0.045  3880.000     0.130  8050.000     0.050  9935.000     0.045 10132.000     0.100
NH  15850.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 10000
X1      4.420    27.000  9935.000 10132.000   992.000   992.000   992.000     0.000     0.000     0.000
GR 1748.000  2045.000  1744.000  2335.000  1740.000  3060.000  1740.000  3515.000  1736.000  3675.000
GR 1736.000  3880.000  1736.000  6450.000  1736.500  8050.000  1739.700  9731.000  1739.700  9794.000
GR 1737.400  9813.000  1737.000  9935.000  1724.900  9956.000  1724.800 10000.000  1724.200 10052.000
GR 1732.300 10072.000  1735.400 10095.000  1737.600 10132.000  1737.600 10179.000  1738.000 10236.000
GR 1736.000 10750.000  1735.600 11580.000  1736.000 12365.000  1740.000 13440.000  1744.000 14870.000
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GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
MH	5.000	0.045	3896.000	0.130	8666.000	0.050	9933.000	0.045	10067.000	0.100
NH	15915.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.436	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9954.100	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9934.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14835.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

**** NELLIS BOULEVARD ****
1' DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1736.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000
GR	1736.000	10013.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

GT	2.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10097.000	0.050
NH	11367.000	0.100	15642.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.470	41.000	9919.000	10050.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1752.000	1595.000	1743.000	2035.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	6200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9902.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000	1738.800	10072.000	1737.100	10078.000

GR	1737.700	10230.000	1737.100	10310.000	1738.400	10373.000	1739.400	10392.000	1737.300	10397.000
GR	1738.400	11434.000	1736.000	11260.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000

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GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.300	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	9914.000	0.055
NH	10461.000	0.070	10493.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.570	43.000	9914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
GR	1756.000	1380.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1736.000	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1738.800	9862.000	1737.300	9886.000	1725.100	9914.000	1726.900	9930.000	1725.600	9953.000
GR	1725.600	9974.000	1727.100	9989.000	1725.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.800	10040.000	1737.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	10089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384.000	1739.400	10403.000
GR	1737.300	10408.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1748.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10050.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.680	26.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
GR	1760.000	1210.000	1756.000	1580.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000	1740.000	9320.000	1740.000	9935.000
GR	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000	1725.200	9989.000	1725.200	10010.000
GR	1728.900	10012.000	1728.100	10025.000	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000
GR	1740.000	10065.000	1744.000	13935.000	1748.000	13975.000	1752.000	14925.000	1756.000	15500.000
GR	1760.000	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10087.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.695	21.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1725.600	10072.200	1733.000	10086.800
GR	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000
GR	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.696	35.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1733.000	9930.000	1733.000	9931.500
GR	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300	1733.000	9977.700	1725.600	9977.800
GR	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900	1725.600	10024.000	1725.600	10068.600
GR	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200	1733.000	10086.800	1740.000	10087.000
GR	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000

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****** CHARLESTON BOULEVARD ******
2# DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.714	35.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000

GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1733.000	9928.000	1733.000	9933.500
GR	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200	1733.000	9979.700	1725.600	9979.800
GR	1725.600	10020.400	1733.300	10020.500	1733.000	10025.900	1725.600	10026.000	1725.600	10066.600
GR	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200	1733.000	10086.800	1740.000	10087.000
GR	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000

CENTERLINE STATION AT 10000

X1	4.715	21.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.100	9913.200	1725.600	9927.900	1725.600	10072.200	1733.000	10086.800
GR	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000
GR	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.720	33.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000
GR	1744.000	3350.000	1744.000	3880.000	1740.000	4875.000	1740.000	6390.000	1744.000	7295.000
GR	1744.000	8875.000	1742.300	9833.000	1741.900	9954.000	1729.600	9976.000	1729.200	9988.000
GR	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000	1729.600	10028.000	1729.900	10055.000
GR	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000	1743.500	10096.000	1743.900	10137.000
GR	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000	1744.000	13400.000	1748.000	14690.000
GR	1752.000	15375.000	1756.000	15925.000	1760.000	16450.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NH	6.000	0.130	3885.000	0.045	3280.000	0.100	7641.000	0.045	9857.000	0.035
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000
GR	1760.000	1720.000	1756.300	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9889.000
GR	1745.600	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000
GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000
GR	1744.000	13550.000	1748.000	14300.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000

NH	6.000	0.130	5425.000	0.045	9330.000	0.065	9905.000	0.035	10040.000	0.130
NH	17355.000	0.040	18900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.180	27.000	9905.000	10040.000	1100.000	1277.000	1277.000	0.000	0.000	0.000
GR	1768.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1752.000	3575.000
GR	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000	1748.000	9330.000	1753.500	9803.000
GR	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000	1732.100	9937.000	1732.300	9978.000
GR	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000	1735.900	10017.000	1737.300	10029.000
GR	1750.800	10040.000	1753.700	10071.000	1752.000	10200.000	1752.000	14875.000	1756.000	15780.000
GR	1760.000	17355.000	1770.000	18900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045
NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17620.000	0.040	18935.000	0.000

CENTERLINE STATION AT 10000

X1	5.205	22.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	1772.000	1951.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000

GR	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000	1732.900	9948.000	1732.900	10052.000
GR	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000
GR	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.206	36.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000	1732.900	9950.000	1748.600	9950.100
GR	1748.600	9351.500	1732.900	9951.600	1732.900	9982.800	1748.600	9982.900	1748.600	9984.300
GR	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700	1748.600	10017.100	1732.900	10017.200
GR	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900	1732.900	10050.000	1748.600	10085.000
GR	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000
GR	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**** STEWART AVENUE ****
2' DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

X1	5.224	36.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000	1733.100	9948.000	1748.600	9948.100
GR	1748.600	9953.500	1733.100	9952.600	1733.100	9980.800	1748.600	9980.900	1748.600	9986.300
GR	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700	1748.600	10019.100	1733.100	10019.200
GR	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900	1733.100	10052.000	1748.600	10085.000
GR	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000
GR	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.225	22.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000	1733.100	9948.000	1733.100	10052.000
GR	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000
GR	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	10.000	0.040	2533.000	0.100	3430.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.030	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.240	30.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1772.000	2385.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3430.000	1752.000	3530.000	1752.000	3725.000	1748.000	5155.000	1748.000	6415.000
GR	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000	1751.800	9826.000	1751.900	9875.000
GR	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000	1734.700	9988.000	1733.300	9997.000
GR	1733.300	10002.000	1736.900	10017.000	1738.300	10029.000	1751.800	10040.000	1754.700	10071.000
GR	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000	1760.000	17670.000	1770.000	18830.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3110.000	0.130	8140.000	0.040	9916.000	0.035	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.460	36.000	9916.000	10051.000	1198.000	1198.000	1198.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2225.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000
GR	1760.000	3110.000	1760.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	8140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10005.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.000	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000

GR	1758.900	10191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	2785.000	0.120	4110.000	0.045	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.750	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9605.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.600	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.300	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10360.000	1764.800	10376.000	1763.800	10438.000	1764.000	10465.000
GR	1764.000	10815.000	1760.500	10990.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17865.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 100.0								
X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10091.000	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.794	22.000	9911.000	10091.000	50.000	150.000	70.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9983.500	1766.000	1762.500	10387.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9948.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		**** BONANZA AVENUE ****								
		2* DEBRIS LOADING								
		NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	5.813	36.000	9911.000	10091.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9985.500	1766.000	1762.500	10387.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9545.600	1762.500	9945.700	1762.500	9950.900
GR	1745.900	9951.000	1745.900	9980.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500
GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.814	22.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000

GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000

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NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9605.000	0.050	9913.000	0.032
NH	10069.000	0.040	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.820	30.000	9913.000	10069.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4650.000	1760.000	5405.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.800	9857.000	1761.400	9883.000	1760.300	9897.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1745.400	9966.000	1745.900	9973.000
GR	1745.900	10327.000	1760.100	10069.000	1759.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7995.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	10315.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.960	26.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
GR	1776.000	1375.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	9888.000	1761.800	9897.000	1759.700	9913.000
GR	1751.800	9941.000	1752.000	9953.000	1752.000	9966.000	1749.400	9973.000	1749.400	10027.000
GR	1762.400	10369.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	9698.000	0.040	9939.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.160	48.000	9939.000	10054.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
GR	1780.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1769.100	9786.000	1766.500	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9589.000	1751.800	10011.000	1760.700	10044.000	1764.900	10054.000
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10223.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000
NH	6.000	0.090	7425.000	0.130	9676.000	0.040	9949.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000
GR	1784.000	1180.000	1780.000	1770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.600	10125.000	1772.800	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000

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NH	6.000	0.090	8115.000	0.130	9946.000	0.045	10057.000	0.100	11980.000	0.040
NH	16070.000	0.130	18375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.400	34.000	9946.000	10057.000	300.000	270.000	292.000	0.000	0.000	0.000
GR	1784.000	1215.000	1780.000	2265.000	1776.000	6430.000	1776.000	8115.000	1776.000	9640.000
GR	1775.600	9710.000	1773.900	9772.000	1773.900	9799.000	1773.600	9810.000	1775.100	9862.000

GR	1775.000	9946.000	1767.100	9964.000	1767.100	9983.000	1766.400	9991.000	1766.400	9995.000
GR	1766.400	10009.000	1770.200	10033.000	1773.300	10057.000	1773.000	10073.000	1772.700	10087.000
GR	1774.000	10128.000	1772.600	10143.000	1772.600	10183.000	1772.600	10224.000	1766.600	10239.000
GR	1766.600	10247.000	1774.100	10268.000	1776.200	10297.000	1776.000	10850.000	1776.000	11980.000
GR	1776.000	13473.000	1778.900	16773.000	1780.000	17095.000	1784.000	18375.000	0.000	0.000
NH	7.000	0.050	8865.000	0.100	9932.000	0.045	10035.000	0.045	10610.000	0.100
NH	11340.000	0.045	15790.000	0.130	18305.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.570	29.000	9932.000	10035.000	920.000	500.000	856.000	0.000	0.000	0.000
GR	1788.000	35.000	1784.000	1250.000	1780.000	4925.000	1780.000	8865.000	1777.800	9808.000
GR	1777.800	9826.000	1778.800	9894.000	1781.600	9932.000	1770.600	9945.000	1769.300	9972.000
GR	1769.300	9982.000	1768.500	9991.000	1768.500	10009.000	1773.300	10020.000	1773.300	10032.000
GR	1781.600	10035.000	1778.600	10061.000	1777.500	10085.000	1775.600	10129.000	1779.600	10224.000
GR	1776.800	10433.000	1776.000	10475.000	1776.000	10610.000	1780.000	11340.000	1780.000	15790.000
GR	1780.000	17135.000	1784.000	17805.000	1788.000	18025.000	1790.000	18305.000	0.000	0.000
NH	9.000	0.130	4690.000	0.100	13425.000	0.130	14809.000	0.030	14942.000	0.035
NH	15039.000	0.045	16195.000	0.100	16755.000	0.045	21140.000	0.130	22860.000	0.000
		CENTERLINE STATION AT 15000								
X1	6.710	42.000	14942.000	15039.000	650.000	450.000	780.000	0.000	0.000	0.000
GR	1796.000	2680.000	1792.000	3960.000	1792.000	4690.000	1784.000	8200.000	1784.000	12020.000
GR	1784.000	13425.000	1780.000	14365.000	1780.000	14680.000	1777.400	14809.000	1777.600	14835.000
GR	1778.500	14910.000	1779.000	14914.000	1784.800	14942.000	1773.000	14956.000	1769.300	14987.000
GR	1769.300	14997.000	1769.300	15012.000	1771.900	15025.000	1784.800	15039.000	1781.900	15040.000
GR	1781.900	15071.000	1781.000	15110.000	1781.300	15136.000	1781.200	15150.000	1781.200	15167.000
GR	1780.000	15195.000	1782.100	15222.000	1782.100	15298.000	1781.800	15387.000	1779.800	15404.000
GR	1779.800	15461.000	1781.600	15472.000	1781.000	15531.000	1780.000	15640.000	1780.000	15710.000
GR	1782.000	16195.000	1782.000	16755.000	1784.000	21140.000	1784.000	21860.000	1788.000	22235.000
GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TIA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.420

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 10000

4.42	15.60	1739.80	0.00	1739.80	1740.26	0.46	0.00	0.00	1737.00
84000.	40977.	21640.	21383.	19719.	2129.	10057.	0.	0.	1737.60
0.00	2.38	10.16	2.13	0.102	0.045	0.100	0.000	1724.20	3523.00
0.004101	992.	992.	992.	7	0	0	0.00	9863.26	13386.26

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.437

CENTERLINE STATION AT 10000

4.44	16.18	1740.18	0.00	0.00	1740.59	0.40	0.30	0.02	1736.00
84000.	42958.	19368.	21673.	22475.	1926.	11575.	70.	21.	1736.00
0.01	1.91	10.05	1.87	0.093	0.045	0.100	0.000	1724.00	3043.87
0.002822	93.	93.	93.	3	0	0	0.00	10474.49	13518.37

*SECNO 4.438

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

CENTERLINE STATION AT 10000

4.44	16.61	1740.61	0.00	0.00	1740.69	0.08	0.00	0.10	1736.00

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    84000.    51325.     6684.    25991.    25219.     1678.    13048.       71.       21.    1736.00
       0.01      2.04      3.98      1.99     0.098     0.045     0.100     0.000   1724.00    2965.15
 0.002809         1.        1.        1.         2         0         0   -526.50  10708.48   13673.64
0
 *SECNO 4.456

 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

                  **** NELLIS BOULEVARD ****
                       1* DEBRIS LOADING
                         NORMAL BRIDGE
                    CENTERLINE STATION AT 10000
       4.46     16.87  1740.87      0.00      0.00   1740.94      0.07      0.25      0.00   1736.00
    84000.    52095.     5860.    26045.    27027.     1628.    13593.      164.       46.    1736.00
       0.02      1.93      3.60      1.86     0.097     0.045     0.100     0.000   1724.00    2918.27
 0.002283         98.       98.       98.         2         0         0   -526.50  10847.84   13766.11
0
1
   3-MAY-88    10:19:13                                                                  PAGE   11

    SECNO      DEPTH     CHSEL     CRIWS     WSELK      EG        HV        HL       CLOSS    BANK ELEV
    Q          QLOB      QCH       QROB      ALOB       ACH       ARCB      VOL      TIA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL        ANCH      XNR       WTA      ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID      ENDST

 *SECNO 4.457
                    CENTERLINE STATION AT 10000
       4.46     16.79  1740.79      0.00      0.00   1741.02      0.24      0.00      0.08   1736.00
    84000.    45361.     16384.    22255.    26712.     2010.    13748.      165.       46.    1736.00
       0.02      1.70      8.15      1.62     0.096     0.045     0.100     0.000   1724.00    2933.27
 0.001758         1.        1.        1.         2         0         0      0.00  10803.25   13736.52
0
 FLOW DISTRIBUTION FOR SECNO=      4.46          CHSEL=   1740.79

 STA=    2933.     3896.     6466.     8066.     9747.     9933.    10067.    10765.    11595.    12380.    13455.    13737.
   PER Q=     6.6      19.9      11.4      13.0       3.1      19.5       4.6       9.2       8.5       4.4       0.0
     AREA=  1841.9   12303.8    7260.0    4517.7     789.0    2009.5    2585.9    4135.6    3915.1    2996.5     110.8
      VEL=     3.0       1.4       1.3       2.4       3.3       8.2       1.5       1.8       1.8       1.2       0.3

 1490 NH CARD USED
 *SECNO 4.470
                    CENTERLINE STATION AT 10000
       4.47     16.07  1740.87      0.00      0.00   1741.24      0.37      0.15      0.07   1736.90
    84000.    40082.     15622.    28296.    18916.     1575.     9199.      215.       60.    1738.80
       0.02      2.12      9.92      3.08     0.097     0.045     0.065     0.000   1724.80    2722.26
 0.003851         60.       60.       60.         3         0         0      0.00  10413.31   13135.57
0
 CCHV=   0.100 CEHV=   0.300
 1490 NH CARD USED
 *SECNO 4.570

 3265 DIVIDED FLOW

                    CENTERLINE STATION AT 10000
       4.57     18.04  1743.04      0.00      0.00   1743.42      0.38      2.18      0.01   1739.10
    84000.    42307.     18426.    23267.    20475.     1926.     7655.      550.      171.    1738.80
       0.06      2.37      9.57      3.04     0.105     0.055     0.070     0.000   1725.00    2678.58
 0.004375         350.      562.      800.         7         0         0      0.00   9430.90   12854.19
0
 1490 NH CARD USED
 *SECNO 4.680
                    CENTERLINE STATION AT 10000
       4.68     19.51  1744.71      0.00      0.00   1745.07      0.36      1.64      0.00   1740.00
    84000.    52018.     18568.    13414.    28937.     1921.     8127.      872.      266.    1740.00
       0.10      1.80      9.67      1.65     0.128     0.100     0.100     0.000   1725.20    2658.31
 0.003291         350.      540.      550.         3         0         0      0.00  10544.99   13203.30
```

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCH= 0.300 CEnv= 0.500
1490 NH CARD USED
*SECNO 4.695

CENTERLINE STATION AT 10000

4.70	19.32	1744.92	0.00	0.00	1745.39	0.47	0.26	0.05	1740.30
84000.	44030.	29408.	10593.	29653.	3249.	8087.	964.	290.	1740.50
0.10	1.48	9.05	1.31	0.128	0.050	0.100	0.000	1725.60	2709.86
0.002134	1.	100.	100.	2	0	0	0.00	10585.24	13295.10

*SECNO 4.696

337 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.50

CENTERLINE STATION AT 10000

4.70	19.85	1745.45	0.00	0.00	1745.51	0.06	0.00	0.12	1740.30
84000.	59272.	6737.	17991.	33528.	1978.	10585.	965.	290.	1740.00
0.10	1.77	3.41	1.70	0.126	0.050	0.100	0.000	1725.60	2637.61
0.002582	1.	1.	1.	2	0	0	-1303.50	10783.24	13420.86

*SECNO 4.714

337 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.50

**** CHARLESTON BOULEVARD ****
2# DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

4.71	20.09	1745.69	0.00	0.00	1745.74	0.05	0.23	0.00	1740.30
84000.	59356.	6089.	18556.	35264.	1916.	11386.	1071.	314.	1740.00
0.12	1.68	3.19	1.63	0.125	0.050	0.100	0.000	1725.60	2605.46
0.002187	98.	98.	98.	2	0	0	-1303.50	10871.37	13476.83

*SECNO 4.715

CENTERLINE STATION AT 10000

4.72	19.98	1745.58	0.00	0.00	1745.86	0.29	0.00	0.12	1740.30
84000.	45977.	29445.	12578.	34418.	3363.	10246.	1073.	315.	1740.50
0.12	1.34	7.57	1.23	0.125	0.050	0.100	0.000	1725.60	2621.12
0.001424	1.	1.	1.	2	0	0	0.00	10828.46	13449.57

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 4.720

1645 INT SEC ADDED BY RAISING SEC 4.72, -1.350FT AND MULTIPLYING BY 1.220

1.01	18.78	1745.73	0.00	0.00	1745.92	0.19	0.03	0.03	1740.55
84000.	51837.	18629.	13533.	40400.	2642.	15417.	1103.	322.	1742.15
0.12	1.28	7.05	0.88	0.093	0.035	0.100	0.000	1726.95	2817.37

```
 0.000762      25.      25.      25.        3        0        0     0.00 14434.29 17251.66
C
 1645 INT SEC ADDED BY RAISING SEC      1.01,   1.350FT AND MULTIPLYING BY   0.819

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
      4.72    17.29  1745.59  1745.59     0.00  1746.66     1.07     0.04     0.44  1741.90
    84000.    47557.   27671.    8772.   22236.    1954.    6551.    1129.     329.   1743.50
      0.12      2.14    14.16     1.33     0.10    0.035    0.100    0.000  1728.30   2743.87
 0.003593      25.      25.      25.       25       14        0     0.00 11169.80 13913.67
C
 CCHV=   0.100 CEHV=   0.300
 1490 NH CARD USED
 *SECNO 4.750

 1645 INT SEC ADDED BY RAISING SEC      4.75,   0.000FT AND MULTIPLYING BY   1.000

 3301 HV CHANGED MORE THAN HVINS

      1.01    18.14  1746.44  1745.54     0.00  1746.91     0.47     0.19     0.06  1741.90
    84000.    50511.   21704.   11785.   28349.    2073.    9919.    1190.     345.   1743.50
      0.13      1.78    10.47     1.19     0.096    0.035    0.100    0.000  1728.30   2642.84
 0.001813      75.      75.      75.       18        6        0     0.00 11542.35 14185.19
C
C
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   G         QLOB      QCH       QROB      ALOB      ACH       ARCH      VOL       TLA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WIN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWIC      ENDST


 1645 INT SEC ADDED BY RAISING SEC      1.01,   0.000FT AND MULTIPLYING BY   1.000

                CENTERLINE STATION AT 10000
      4.75    18.35  1746.65     0.00     0.00  1747.04     0.39     0.12     0.01  1741.90
    84000.    51074.   20477.   12449.   29995.    2105.   10849.    1262.     369.   1743.50
      0.15      1.70     9.73     1.15     0.095    0.035    0.100    0.000  1728.30   2615.80
 0.001534      75.      75.      75.        2        0        0     0.00 11642.07 14257.86
C
 1490 NH CARD USED
 *SECNO 4.940

 3265 DIVIDED FLOW

                CENTERLINE STATION AT 10000
      4.94    17.98  1748.38     0.00     0.00  1748.51     0.43     1.46     0.01  1745.60
    64000.    49507.   20712.   13781.   24436.    2062.   10681.    2015.     586.   1747.90
      0.19      2.03    13.04     1.29     0.078    0.035    0.103    0.000  1730.10   3087.68
 0.001994      75.      965.     965.        2        0        0     0.00 11136.54 14315.18
C
 1490 NH CARD USED
 *SECNO 5.180

 1645 INT SEC ADDED BY RAISING SEC      5.18,  -1.500FT AND MULTIPLYING BY   1.000

 3265 DIVIDED FLOW
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3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	18.79	1749.39	1749.39	0.00	1750.65	1.26	0.75	0.25	1749.00
84000.	53461.	30539.	0.	16495.	2137.	0.	2199.	643.	1749.30
0.20	3.24	14.29	0.01	0.054	0.035	0.130	0.000	1730.60	4194.09
0.003436	275.	319.	319.	20	5	0	0.00	6104.22	10564.55

0

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICFLIC	ENDST

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.500FT AND MULTIPLYING BY 0.575

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.02	19.73	1750.83	0.00	0.00	1751.41	0.59	0.69	0.07	1749.50
84000.	60269.	23729.	2.	21662.	2225.	6.	2335.	682.	1749.80
0.22	2.78	10.67	0.31	0.054	0.035	0.130	0.000	1731.10	4120.47
0.001771	275.	319.	319.	5	0	0	0.00	6114.92	10400.45

0

1645 INT SEC ADDED BY RAISING SEC 1.02, 0.500FT AND MULTIPLYING BY 0.979

3265 DIVIDED FLOW

1.03	19.73	1751.33	0.00	0.00	1751.94	0.61	0.52	0.01	1750.00
84000.	60300.	23698.	2.	21209.	2178.	6.	2487.	720.	1750.30
0.24	2.84	10.88	0.31	0.054	0.035	0.130	0.000	1731.60	4077.95
0.001851	275.	319.	319.	0	0	0	0.00	5986.14	10225.71

0

1645 INT SEC ADDED BY RAISING SEC 1.03, 0.500FT AND MULTIPLYING BY 0.978

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

5.18	19.76	1751.86	0.00	0.00	1752.48	0.62	0.54	0.00	1750.50
84000.	60537.	23461.	2.	20952.	2136.	6.	2635.	758.	1750.80
0.25	2.89	10.98	0.32	0.054	0.035	0.130	0.000	1732.10	4034.30
0.001888	275.	319.	319.	2	0	0	0.00	5862.28	10051.36

0

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*SECNO 5.205

CENTERLINE STATION AT 18000

5.20	19.38	1752.28	0.00	0.00	1752.75	0.47	0.23	0.04	1750.20
84000.	58038.	25526.	385.	24692.	2725.	1401.	2725.	786.	1749.90
0.26	2.35	9.35	0.28	0.057	0.035	0.130	0.000	1732.90	3452.32
0.001278	150.	150.	150.	3	0	0	0.00	10689.31	14141.63

*SECNO 5.206

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.5? MAX ELLC= 1750.70

CENTERLINE STATION AT 10000

5.21	19.84	1752.74	0.00	0.00	1752.86	0.12	0.00	0.11	1748.60
84000.	72850.	9844.	1306.	27673.	2483.	3302.	2726.	786.	1748.60
0.26	2.63	3.96	?.4?	?.057	0.035	0.130	0.000	1732.90	3431.60
0.001401	1.	1.	1.	2	0	0	-5?5.50	10851.66	14283.26

*SECNO 5.224

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.5? MAX ELLC= 1750.70

**** STEWART AVENUE ****
2* DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.22	19.78	1752.88	0.00	0.00	1752.99	0.11	0.13	0.00	1748.60
84000.	73947.	8437.	1616.	28576.	2263.	3885.	2802.	811.	1748.60
0.27	2.59	3.73	0.42	0.057	0.035	0.130	0.000	1733.10	3425.33
0.001304	98.	98.	98.	2	0	0	-5?5.50	10900.72	14326.95

*SECNO 5.225

CENTERLINE STATION AT 10000

5.22	19.68	1752.78	0.00	0.00	1753.10	0.33	0.00	0.11	1750.20
84000.	60251.	22613.	1136.	27889.	2786.	3442.	2803.	811.	1749.90
0.27	2.16	8.12	0.33	0.057	0.035	0.130	0.000	1733.10	3430.10
0.000935	1.	1.	1.	2	0	0	0.00	10863.41	14293.51

0

1490 NH CARD USED

1

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*SECNO 5.240

1645 INT SEC ADDED BY RAISING SEC 5.24, 0.000FT AND MULTIPLYING BY 1.156

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.01	19.31	1752.41	1752.40	0.00	1753.56	1.15	0.05	0.41	1751.50
84000.	51071.	32361.	567.	20206.	2398.	1649.	2823.	819.	1751.80
0.27	2.53	13.49	0.34	0.070	0.035	0.127	0.000	1733.10	3634.00
0.002889	3?.	33.	30.	6	6	0	0.00	11284.36	15833.75

0

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.000FT AND MULTIPLYING BY 0.865

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000.

5.24	19.66	1752.76	1752.76	0.00	1753.84	1.08	0.09	0.02	1751.50
84000.	53529.	29059.	1413.	19587.	2122.	2688.	2640.	826.	1751.80
0.27	2.73	13.70	0.53	0.069	0.035	0.125	0.000	1733.10	3401.62
0.002962	35.	38.	38.	20	9	0	0.00	10024.59	14092.73

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.460

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000.

5.46	17.05	1753.45	1753.45	0.00	1759.50	1.05	4.05	0.00	1756.20
84000.	50656.	26190.	7154.	22082.	1826.	6528.	3594.	1106.	1758.00
0.33	2.29	14.34	1.10	0.103	0.038	0.139	0.000	1741.40	3487.00
0.003890	1198.	1198.	1198.	20	9	0	0.00	10354.44	14213.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TAE	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	ICPLIC	ENDST

1490 NH CARD USED
*SECNO 5.750

1645 INT SEC ADDED BY RAISING SEC 5.75, -2.550FT AND MULTIPLYING BY 0.964

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	18.62	1760.87	1760.87	0.00	1762.10	1.23	0.95	0.06	1756.05
84000.	40319.	25965.	13715.	14373.	2060.	12346.	3854.	1193.	1761.25
0.35	2.81	14.55	1.11	0.046	0.026	0.118	0.000	1742.25	4194.41
0.001725	383.	383.	383.	20	8	0	0.00	9361.17	14630.21

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.850FT AND MULTIPLYING BY 1.013

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.02	18.57	1761.67	1761.67	0.00	1762.93	1.27	0.67	0.01	1756.90
84000.	39989.	30422.	13588.	14281.	2078.	12283.	4107.	1276.	1762.10
0.36	2.80	14.64	1.11	0.046	0.025	0.118	0.000	1743.10	4229.66
0.001750	383.	383.	383.	20	6	0	0.00	9442.68	14779.18

1645 INT SEC ADDED BY RAISING SEC 1.02, 0.850FT AND MULTIPLYING BY 1.012

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.03	18.53	1762.48	1762.48	0.00	1763.76	1.27	0.67	0.00	1757.75
84000.	39782.	30709.	13509.	14293.	2100.	12303.	4359.	1359.	1762.95
0.38	2.78	14.63	1.10	0.046	0.025	0.118	0.000	1743.95	4259.88
0.001746	383.	383.	383.	20	6	0	0.00	9837.86	14929.68

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	WCL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWIC	ENDST

1645 INT SEC ADDED BY RAISING SEC 1.03, 0.850FT AND MULTIPLYING BY 1.012

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.75	18.51	1763.31	1763.31	0.00	1764.58	1.28	0.67	0.00	1758.60
84000.	39613.	30943.	13444.	14335.	2122.	12347.	4612.	1443.	1763.80
0.39	2.76	14.58	1.09	0.046	0.025	0.118	0.000	1744.80	4288.62
0.001738	383.	383.	383.	20	6	0	0.00	9837.06	15080.64

*SECNO 5.780

1645 INT SEC ADDED BY RAISING SEC 5.78, 0.000FT AND MULTIPLYING BY 1.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.01	19.32	1764.12	1763.28	0.00	1764.74	0.62	0.09	0.07	1758.60
84000.	43918.	24998.	15084.	18830.	2237.	16055.	4668.	1462.	1763.80
0.40	2.33	11.18	0.94	0.046	0.025	0.117	0.000	1744.80	4067.99
0.000959	75.	75.	75.	13	5	0	0.00	11805.25	16328.19

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.000FT AND MULTIPLYING BY 1.000

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

5.78	19.46	1764.26	0.00	0.00	1764.82	0.56	0.07	0.01	1758.60
84000.	44577.	24147.	15347.	19627.	2256.	16878.	4734.	1482.	1763.80
0.40	2.27	10.70	0.91	0.046	0.025	0.117	0.000	1744.80	4022.21
0.000869	75.	75.	75.	2	0	0	0.00	11926.83	16364.34

1

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCH\= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

1645 INT SEC ADDED BY RAISING SEC 5.79, -0.450FT AND MULTIPLYING BY 0.894

3301 HV CHANGED MORE THAN HVINS

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	18.76	1764.01	1764.01	0.00	1765.34	1.33	0.04	0.39	1763.95
84000.	48911.	34189.	900.	15129.	2446.	2483.	4762.	1495.	1763.05
0.40	3.23	13.98	0.36	0.041	0.025	0.098	0.000	1745.25	3844.96
0.001593	25.	35.	75.	4	10	0	0.00	10760.16	14605.13

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.450FT AND MULTIPLYING BY 1.119

3265 DIVIDED FLOW

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

5.79	18.59	1764.29	1764.29	0.00	1765.53	1.24	0.04	0.03	1764.40
84000.	47706.	35844.	450.	15943.	2705.	1751.	4777.	1506.	1763.50
0.40	2.99	13.25	0.26	0.041	0.025	0.096	0.000	1745.70	4128.87
0.001438	25.	35.	75.	9	6	0	0.00	11960.02	16141.81

*SECNO 5.795

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

CENTERLINE STATION AT 10000

5.80	20.01	1765.71	0.00	0.00	1765.86	0.14	0.00	0.33	1764.40
84000.	67563.	11018.	5419.	24291.	2270.	10435.	4777.	1509.	1763.50
0.40	2.78	4.85	0.52	0.042	0.040	0.120	0.000	1745.70	3998.54
0.000853	1.	1.	1.	4	0	0	-571.51	12202.19	16200.73

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.813

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

**** BONANZA AVENUE ****
2# DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.81	19.91	1765.31	0.00	0.00	1765.54	0.13	0.08	0.00	1764.40	
64000.	68865.	9294.	5640.	24857.	2011.	11020.	4862.	1536.	1763.50	
0.41	2.77	4.62	0.53	0.042	0.040	0.120	0.000	1745.90	3989.81	
0.000827	98.	98.	98.	2	0	0	-588.32	12214.67	16204.67	

0

*SECNO 5.814

CENTERLINE STATION AT 10000

5.81	19.77	1765.67	0.00	0.00	1766.09	0.42	0.00	0.14	1764.40	
64000.	53961.	25836.	4203.	24012.	2925.	10146.	4863.	1536.	1763.50	
0.41	2.25	8.83	0.41	0.042	0.040	0.120	0.000	1745.90	4002.95	
0.000563	1.	1.	1.	2	0	0	0.00	12155.93	16198.78	

0

1490 NH CARD USED

*SECNO 5.820

CENTERLINE STATION AT 10000

5.82	19.92	1765.82	0.00	0.00	1766.14	0.32	0.02	0.03	1760.70	
64000.	54292.	20445.	9263.	22479.	2467.	11442.	4888.	1545.	1760.10	
0.42	2.42	8.29	0.81	0.047	0.032	0.087	0.000	1746.90	3994.73	
0.000843	30.	30.	30.	2	0	0	0.00	11987.90	15982.63	

0

CCHV= 0.100 CHHV= 0.300

1490 NH CARD USED

*SECNO 5.960

1645 INT SEC ADDED BY RAISING SEC 5.96, -1.750FT AND MULTIPLYING BY 0.977

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1

SECNO / TIME / SLOPE	DEPTH / GLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / ARCB / XNR / ICONT	HL / VOL / WTN / CORAR	CLOSS / TWA / ELMIN / ICPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
1.01	18.17	1765.82	1765.82	0.00	1767.06	1.25	0.50	0.28	1757.95	
64000.	47451.	31818.	4730.	17221.	2258.	1240.	5126.	1620.	1760.65	
0.43	2.76	14.09	3.81	0.059	0.032	0.050	0.000	1747.65	3900.15	
0.002612	375.	365.	325.	20	13	0	0.00	6341.73	10241.87	

0

1645 INT SEC ADDED BY RAISING SEC 1.01, 1.750FT AND MULTIPLYING BY 1.023

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.96	18.06	1767.46	1767.46	0.00	1768.76	1.30	0.98	0.02	1759.70	
64000.	46665.	32640.	4695.	16979.	2293.	1229.	5381.	1674.	1762.40	
0.44	2.75	14.23	3.82	0.059	0.032	0.050	0.000	1749.40	4009.13	
0.002686	375.	365.	325.	20	6	0	0.00	6422.84	10431.97	

0

1490 NH CARD USED

*SECNO 6.160

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

6.16	20.30	1772.10	1772.10	0.00	1773.20	1.10	2.65	0.02	1763.00	
64000.	27673.	26371.	29949.	16681.	1867.	6589.	5855.	1915.	1764.90	

0.49	1.66	14.13	4.55	0.083	0.032	0.040	0.000	1751.80	3005.22
0.002345	1056.	1056.	1056.	20	13	0	0.00	13416.46	16421.68

1495 NH CARD USED
*SECNO 6.350
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

6.35	17.28	1777.48	1777.48	0.00	1778.40	0.92	3.53	0.02	1771.80
84000.	28883.	22423.	32689.	12783.	1564.	12802.	6478.	2243.	1771.80
0.54	2.26	14.34	2.55	0.080	0.045	0.070	0.000	1766.21	2547.15
0.005654	11.	1004.	950.	20	5	0	0.00	14425.80	16972.95

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1495 NH CARD USED
*SECNO 6.400

1645 INT SEC ADDED BY RAISING SEC 6.41, -3.100FT AND MULTIPLYING BY 0.975

3301 HV CHANGED MORE THAN HVINS

1.01	15.29	1778.59	0.00	0.00	1778.62	0.04	3.13	0.09	1771.90
84000.	28386.	4764.	50861.	35182.	1388.	33118.	6636.	2292.	1770.20
0.57	0.31	3.42	1.54	0.101	0.045	0.056	0.000	1763.30	1807.18
0.000368	150.	146.	135.	3	0	0	0.00	15425.32	17232.50

1645 INT SEC ADDED BY RAISING SEC 1.01, 3.100FT AND MULTIPLYING BY 1.025

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

6.40	11.89	1778.29	0.00	0.00	1778.95	0.66	3.14	0.19	1775.00
84000.	24240.	14328.	45432.	11144.	1046.	10962.	6788.	2336.	1773.30
0.57	2.18	13.69	4.14	0.105	0.045	0.061	0.000	1766.40	4041.30
0.008859	150.	146.	135.	5	0	0	0.00	11485.43	15526.73

1490 NH CARD USED
*SECNO 6.570

CENTERLINE STATION AT 10000

6.57	13.63	1782.13	0.00	0.00	1782.36	0.23	3.37	0.04	1781.60
84000.	21650.	10038.	52311.	13950.	1144.	18193.	7242.	2545.	1781.60
0.63	1.55	8.78	2.88	0.093	0.045	0.057	0.000	1768.50	2566.04
0.003261	920.	856.	500.	5	0	0	0.00	14526.11	17492.14

1495 NH CARD USED
*SECNO 6.710

1645 INT SEC ADDED BY RAISING SEC 6.71, -0.600FT AND MULTIPLYING BY 1.116

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	STA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCRWIC	ENDST

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.71	15.19	1783.89	1783.89	0.00	1784.58	-.69	-.51	-.14	1784.20
84000.	21444.	17171.	45384.	9453.	1270.	13710.	7332.	2596.	1784.20
.64	2.27	13.52	3.31	0.085	0.035	0.049	0.000	1766.70	8598.78
0.004185	163.	195.	113.	20	8	0	0.00	15528.25	24129.60

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.200FT AND MULTIPLYING BY .965

1.02	15.31	1784.71	0.00	0.00	1785.04	0.32	0.42	0.04	1784.40
84000.	21838.	13315.	49146.	13862.	1291.	17842.	7422.	2645.	1784.40
.65	1.58	10.38	2.75	0.089	0.035	0.049	0.000	1768.90	8101.25
0.002213	163.	195.	113.	4	0	0	0.00	15349.73	23450.98

1645 INT SEC ADDED BY RAISING SEC 1.02, 0.200FT AND MULTIPLYING BY .964

1.13	15.33	1785.13	0.00	0.00	1785.34	0.30	0.30	0.00	1784.60
84000.	21972.	12394.	49634.	14238.	1256.	18036.	7527.	2693.	1784.60
.66	1.54	9.87	2.75	0.090	0.035	0.049	0.000	1769.10	7854.47
0.002108	163.	195.	113.	2	0	0	0.00	14864.30	22718.77

1645 INT SEC ADDED BY RAISING SEC 1.03, 0.200FT AND MULTIPLYING BY .963

CENTERLINE STATION AT 15000

6.71	16.03	1785.33	0.00	0.00	1785.62	0.29	.29	0.00	1784.80
84000.	22099.	11869.	50032.	14467.	1215.	18087.	7633.	2740.	1784.80
.67	1.53	9.73	2.77	0.090	0.035	0.049	0.000	1769.30	7616.86
0.002044	163.	195.	113.	2	0	0	0.00	14867.75	21984.60

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 500-Y

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.428	0.00	0.00	0.00	1724.20	84000.00	1739.80	0.00	1740.26	41.01	10.16	31905.35	13117.56
4.437	90.00	0.00	0.00	1724.00	84000.00	1740.18	0.00	1740.59	28.22	10.05	35977.66	15813.37
4.438	1.00	1737.50	1739.70	1724.00	84000.00	1740.61	0.00	1740.69	28.09	3.98	39943.92	15850.12

	4.456	98.	1737.6	1739.7	1724.3	84000.	174 .87	0.00	1740.94	22.83	3.60	42647.85	17580.04
	4.457	1.00	0.00	0.00	1724.30	84000.00	1740.79	0.00	1741.02	17.58	8.15	42469.79	20034.24
	4.470	60.00	0.00	0.00	1724.80	84000.00	1740.87	0.00	1741.24	38.51	9.92	29689.66	13535.26
	4.570	562.00	0.00	0.00	1725.00	84000.00	1743.04	0.00	1743.42	43.75	9.57	30055.47	12700.27
	4.680	540.00	0.00	0.00	1725.20	84000.00	1744.71	0.00	1745.07	32.91	5.67	38984.92	14642.89
	4.695	100.00	0.00	0.00	1725.60	84000.00	1744.92	0.00	1745.39	21.34	9.05	40988.86	18183.34
	4.696	1.00	1740.30	1740.90	1725.60	84000.00	1745.45	0.00	1745.51	25.82	3.41	46091.20	16529.56
	4.714	98.00	1740.30	1740.90	1725.60	84000.00	1745.69	0.00	1745.74	21.87	3.18	48565.89	17961.45
	4.715	1.00	0.00	0.00	1725.60	84000.00	1745.58	0.00	1745.86	14.24	7.57	48127.02	22262.74
*	4.720	50.00	0.00	0.00	1728.30	84000.00	1745.59	1745.59	1746.66	35.93	14.16	30780.55	14013.86
*	4.750	150.00	0.00	0.00	1728.30	84000.00	1746.65	0.00	1747.04	15.34	9.73	42953.58	21448.51
	4.940	965.00	0.00	0.00	1730.10	84000.00	1748.08	0.00	1748.51	19.94	10.04	37178.46	18809.36
*	5.180	1277.00	0.00	0.00	1732.10	84000.00	1751.86	0.00	1752.48	18.88	10.98	23093.81	19331.27
	5.285	150.00	0.00	0.00	1732.90	84000.00	1752.28	0.00	1752.75	12.78	9.35	28821.89	23498.30

	SECNO	XLCH	ELTRO	ELLO	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
	5.296	1.00	1749.50	1750.70	1732.90	84000.00	1752.74	0.00	1752.86	14.01	3.96	33458.20	22437.99
	5.224	98.00	1749.50	1750.70	1733.10	84000.00	1752.88	0.00	1752.99	13.04	3.73	34728.16	23262.90
	5.225	1.00	0.00	0.00	1733.10	84000.00	1752.78	0.00	1753.10	9.35	8.12	34116.91	27467.36
*	5.245	6 .00	0.00	0.00	1733.10	84000.00	1752.76	1752.76	1753.84	29.62	13.70	24396.78	15433.99
*	5.460	1198.00	0.00	0.00	1741.40	84000.00	1758.45	1758.45	1759.50	38.90	14.34	30436.05	13467.96
*	5.750	1532.00	0.00	0.00	1744.80	84000.00	1763.31	1763.31	1764.58	17.38	14.58	28804.39	27151.36
*	5.780	150.00	0.00	0.00	1744.80	84000.00	1764.26	0.00	1764.82	8.69	10.70	38761.06	28490.61
*	5.794	70.00	0.00	0.00	1745.70	84000.00	1764.29	1764.29	1765.53	14.30	13.25	20398.93	22213.77
	5.795	1.00	1763.50	1764.40	1745.70	84000.00	1765.71	0.00	1765.86	8.53	4.85	36995.73	28762.05
	5.813	98.00	1763.50	1764.40	1745.90	84000.00	1765.81	0.00	1765.94	8.27	4.62	37887.93	29202.45
	5.814	1.00	0.00	0.00	1745.90	84000.00	1765.67	0.00	1766.09	5.63	8.83	37083.48	35399.44
	5.828	30.00	0.00	0.00	1745.90	84000.00	1765.82	0.00	1766.14	8.43	8.29	36387.67	28928.74
*	5.960	730.00	0.00	0.00	1749.40	84000.00	1767.46	1767.46	1768.76	26.86	14.23	20502.29	16206.91
*	6.160	1056.00	0.00	0.00	1751.80	84000.00	1772.10	1772.10	1773.20	23.45	14.13	25137.02	17345.49
*	6.350	1 04.00	0.00	0.00	1760.20	84000.00	1777.48	1777.48	1778.40	56.54	14.34	27148.87	11171.39
*	6.400	292.00	0.00	0.00	1766.40	84000.00	1778.29	0.00	1778.95	88.59	13.69	23152.83	8924.67
	6.570	856.00	0.00	0.00	1768.50	84000.00	1782.13	0.00	1782.36	32.61	8.78	33286.60	14708.71

*	6.710	780.00	0.00	0.00	1765.30	84000.00	1785.33	0.00	1785.62	20.44	9.73	33773.14 18578.94

LAS VEGAS WASH - 500-Y
SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	4.420	84000.00	1739.80	0.00	0.00	0.00	9863.26	0.00
	4.437	84000.00	1740.18	0.00	0.38	0.00	10474.49	90.00
	4.438	84000.00	1740.61	0.00	0.43	0.00	10746.48	1.00
	4.456	84000.00	1740.87	0.00	0.26	0.00	10847.84	98.00
	4.457	84000.00	1740.79	0.00	-0.08	0.00	10803.25	1.00
	4.470	84000.00	1741.87	0.00	0.08	0.00	10413.31	60.00
	4.570	84000.00	1743.04	0.00	2.17	0.00	9430.50	562.00
	4.680	84000.00	1744.71	0.00	1.67	0.00	10544.99	540.00
	4.695	84000.00	1744.92	0.00	0.21	0.00	10585.24	100.00
	4.696	84000.00	1745.45	0.00	0.53	0.00	10783.24	1.00
	4.714	84000.00	1745.69	0.00	0.24	0.00	10871.37	98.00
	4.715	84000.00	1745.58	0.00	-0.12	0.00	10828.46	1.00
*	4.720	84000.00	1745.59	0.00	-0.14	0.00	11165.80	50.00
*	4.750	84000.00	1746.65	0.00	0.22	0.00	11642.17	150.00
	4.940	84000.00	1748.08	0.00	1.43	0.00	11136.54	965.00
*	5.180	84000.00	1751.86	0.00	0.53	0.00	5862.28	1277.00
	5.205	84000.00	1752.28	0.00	0.42	0.00	10689.31	150.00
	5.206	84000.00	1752.74	0.00	0.46	0.00	10851.66	1.00
	5.224	84000.00	1752.88	0.00	0.14	0.00	10900.72	98.00
	5.225	84000.00	1752.78	0.00	-0.11	0.00	10863.41	1.00
*	5.240	84000.00	1752.76	0.00	0.35	0.00	10024.59	60.00
*	5.460	84000.00	1758.45	0.00	5.69	0.00	10354.44	1198.00
*	5.750	84000.00	1763.31	0.00	0.82	0.00	9637.05	1532.00
*	5.780	84000.00	1764.26	0.00	0.14	0.00	11926.83	150.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH

*	5.794	84000.00	1764.29	0.00	0.28	0.00	11960.02	70.00
	5.795	84000.00	1765.71	0.00	1.43	0.00	12202.13	1.00
	5.813	84000.00	1765.81	0.00	0.10	0.00	12214.87	98.00
	5.814	84000.00	1765.67	0.00	-0.14	0.00	12195.93	1.00
	5.820	84000.00	1765.82	0.00	0.16	0.00	11987.90	30.00
*	5.960	84000.00	1767.46	0.00	1.64	0.00	6422.84	730.00
*	6.160	84000.00	1772.10	0.00	4.64	0.00	13416.46	1056.00
*	6.350	84000.00	1777.48	0.00	5.38	0.00	14425.80	1004.00
*	6.400	84000.00	1776.29	0.00	-0.30	0.00	11485.43	292.00
	6.570	84000.00	1782.13	0.00	3.84	0.00	14526.11	856.00
*	6.710	84000.00	1785.33	0.00	0.30	0.00	14367.75	780.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 4.720 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 4.750 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.180 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.240 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.460 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 5.460 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 5.750 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.780 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.794 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.960 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 6.160 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.160 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.160 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 6.350 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.350 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.350 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 6.400 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 6.710 PROFILE= 1 INTERPOLATED XSECTIONS USED

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 ********************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  31,32,33,34,35
   MODIFICATION -  50,51,52,53,54,55
 ********************************************************



EOF..
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1**************************************************
 *  WATER SURFACE PROFILES                        *
 *  VERSION OF NOVEMBER 1976                      *
 *  UPDATED AUGUST 1983                           *
 *                                                *
 *  RUN DATE  14-FEB-88 TIME   13:59:31           *
 **************************************************
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 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  THE HYDROLOGIC ENGINEERING CENTER  *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616            *
 *  (916) 440-2105 (FTS) 448-2105      *
 ***************************************
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x     x  xxxxxxx   xxxxx              xxxxx
x     x  x        x     x            x     x
x     x  x        x                  x     x
xxxxxxx  xxxx     x          xxxxx    xxxxx
x     x  x        x                  x
x     x  x        x     x            x
x     x  xxxxxxx   xxxxx              xxxxxxx

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  14-FEB-88     13:59:31                                                    PAGE     1


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   31,32,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 **************************************************


C
T1        LAS VEGAS WASH OVERFLOW STUDY
T2        NONDAMAGING FLOW ANALYSIS
T3        25-YEAR WITH LINED CHANNEL IN EXTREME RIGHT SIDE OF FLOOD PLAIN.

J1   ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      G          WSEL       FQ

        0.         2.         0.         0.  -1.000000       0.00       0.0        0.   1955.000      0.000

J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

       1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000


QT       3.000   2100.000   2200.000   2300.000      0.000      0.000      0.000      0.000      0.000      0.000
NC       0.300      0.000      0.000      0.100      0.300      0.000      0.000      0.000      0.000      0.000
NH       5.300      0.060    820.000      0.085   2870.000      0.065   4082.000      0.020   4147.000      0.050
NH    4295.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
          LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.
X1       5.350     27.000   4082.000   4147.000    500.000    730.000    730.000      0.000      0.000      0.000
X3      10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    1954.000      0.000   1952.000    350.000   1952.000    500.000   1948.000    820.000   1948.000   1000.000
GR    1951.700   1480.000   1952.000   1630.000   1952.000   1800.000   1952.500   2350.000   1953.800   2870.000
GR    1952.900   3000.000   1952.000   3300.000   1950.200   3532.000   1948.800   3708.000   1950.200   3832.000
GR    1951.400   3939.000   1951.100   4006.000   1950.000   4031.000   1949.000   4047.000   1948.200   4082.000
GR    1942.400   4100.000   1942.200   4100.000   1942.400   4130.000   1949.700   4147.000   1952.500   4151.000
GR    1956.000   4269.000   1960.000   4295.000      0.000      0.000      0.000      0.000      0.000      0.000

NH       5.300      0.060   1000.000      0.065   2050.000      0.060   4228.000      0.020   4285.000      0.060
```

NH	4327.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.

X1	6.010	22.000	4228.000	4285.000	780.000	805.000	805.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1963.000	0.000	1966.000	1.000	1964.000	400.000	1964.000	500.000	1961.000	1000.000
GR	1960.000	1400.000	1960.800	1800.000	1961.300	2050.000	1960.000	2300.000	1960.000	3000.000
GR	1959.500	3100.000	1958.000	3450.000	1960.000	3650.000	1962.000	3700.000	1962.500	4000.000
GR	1960.000	4228.000	1956.000	4242.000	1955.000	4258.000	1956.000	4272.000	1960.000	4285.000
GR	1964.000	4301.000	1968.000	4327.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.055	9500.000	0.065	12400.000	0.060	12994.000	0.020	13052.000	0.050
NH	13125.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OT	3.000	4000.000	4200.000	4400.000	0.000	0.000	0.000	0.000	0.000	0.000

1

LOB REALIGNED UPSTREAM. FLAT CROWN 10300 TO 11530 @ 1966 EL.

X1	6.140	25.000	12994.000	13052.000	400.000	730.000	725.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	8650.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1972.000	8400.000	1969.700	8650.000	1968.000	9000.000	1968.000	9500.000	1964.700	9950.000
GR	1964.700	10050.000	1966.000	10300.000	1966.000	10700.000	1966.000	11250.000	1966.000	11530.000
GR	1964.400	11800.000	1965.000	12000.000	1964.000	12140.000	1963.000	12280.000	1963.000	12400.000
GR	1964.000	12610.000	1965.500	12900.000	1966.200	12981.000	1966.200	12994.000	1957.500	13011.000
GR	1957.400	13040.000	1966.000	13052.000	1967.900	13054.000	1969.200	13062.000	1970.700	13125.000
NH	4.000	0.065	11550.000	0.060	12422.000	0.020	12479.000	0.060	13040.000	0.000
ET	0.000	6.100	6.100	6.100	6.100	8850.000	13100.000	0.000	0.000	0.000

LOB, ENCR TOMIYASU LANE. CROWN 10450 TO 11150 @ 1972 EL. LC=12455.

X1	6.300	21.000	12422.000	12479.000	520.000	865.000	855.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	3.000	1972.000	8480.000	1970.000	8560.000	1972.000	8850.000	0.000	0.000	0.000
GR	1976.000	7960.000	1974.000	9200.000	1972.000	9370.000	1972.000	9800.000	1971.000	10000.000
GR	1972.000	10500.000	1970.000	10720.000	1971.000	10900.000	1972.000	11450.000	1972.000	11550.000
GR	1970.000	12070.000	1971.500	12150.000	1971.700	12360.000	1972.000	12422.000	1964.000	12435.000
GR	1964.000	12465.000	1972.000	12479.000	1972.000	12525.000	1973.400	12670.000	1976.000	12950.000
GR	1980.000	13100.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.850
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1948.20 ELREA= 1949.70

EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.

5.85	4.74	1946.94	1946.94	1955.00	1948.74	1.80	0.00	0.00	1948.20
2100.	0.	2100.	0.	0.	195.	0.	0.	0.	1549.70
0.00	0.00	10.77	0.33	0.084	0.020	0.050	0.000	1942.20	4085.92
0.004030	500.	730.	730.	0	15	0	0.00	54.64	4140.56

1
FLOW DISTRIBUTION FOR SECNO= 5.85 CWSEL= 1946.94

STA= 4086. 4147.

```
  PER G=     100.0
    AREA=    195.9
     VEL=     10.8

1490 NH CARD USED
*SECNO 6.010

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.
     6.01       5.04  1960.04  1960.04      0.00  1960.50      0.46      2.02      0.13  1960.00
     2100.       793.     1307.       0.      724.      192.       0.       10.       14.   1960.00
      0.05       1.09     6.82      0.01     0.060     0.020     0.060     0.000  1955.00  1382.03
 0.001724        780.      805.      805.        20        14         0      0.00  1461.47  4285.18
?
!
  14-FEB-88     13:59:31                                                                    PAGE     4

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XAL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TCPWID     ENDST

FLOW DISTRIBUTION FOR SECNO=      5.01          CWSEL=   1960.04

STA=    1382.     3450.     3650.     4285.
  PER G=     27.2      10.5      62.3
    AREA=   515.3     209.0     191.6
     VEL=     1.1       1.1       6.8

1490 NH CARD USED
*SECNO 6.140

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8650.0    13125.0  TYPE=      1  TARGET=   -8650.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1966.20 ELREA=      1966.00

        LOB REALIGNED UPSTREAM. FLAT CROWN 10300 TO 11530 @ 1966 EL.
     6.14       7.29  1964.69  1964.69      0.00  1967.50      2.80      1.81      0.70  1966.20
     4000.         0.     4000.       0.       0.      298.       0.       17.       21.   1966.00
      0.06       0.00    13.44      0.00     0.063     0.020     0.050     0.000  1957.40 12996.95
 0.003636        400.      725.      730.        20        11         0      0.00     53.23 13050.17

FLOW DISTRIBUTION FOR SECNO=      6.14          CWSEL=   1964.69

STA=   12997.    13052.
  PER G=    100.0
    AREA=   297.7
     VEL=    13.4

1490 NH CARD USED
*SECNO 6.300
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
```

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8950.0 13100.0 TYPE= 1 TARGET= 4250.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1972.00 ELREA= 1972.00

LOB, ENCR TOMIYASU LANE, CROWN 10450 TO 11150 @ 1972 EL. LC=12455.

6.30	7.19	1971.19	1971.19	0.00	1973.90	2.70	3.05	0.01	1972.00
4000.	0.	4000.	0.	0.	303.	0.	23.	22.	1972.00
0.08	0.00	13.20	0.00	0.063	0.029	0.050	0.000	1964.00	12423.31
0.003495	520.	855.	865.	20	8	0	0.00	54.28	12477.59

FLOW DISTRIBUTION FOR SECNO= 6.30 CWSEL= 1971.19

STA=	12423.	12479.
PER Q=	100.0	
AREA=	303.1	
VEL=	13.2	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1
T2
T3 50-YR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	-1.000000	0.00	0.0	0.	1955.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300

1490 NH CARD USED
*SECNO 5.850
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1948.20 ELREA= 1949.70

EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.

5.85	4.86	1947.06	1947.16	1955.00	1948.91	1.85	0.00	0.00	1948.20
2200.	0.	2200.	0.	0.	202.	0.	0.	0.	1949.70
0.00	0.00	10.91	0.00	0.080	0.020	0.050	0.000	1942.20	4085.55
0.004022	500.	730.	730.	0	16	0	0.00	55.29	4140.84

FLOW DISTRIBUTION FOR SECNO= 5.85 CWSEL= 1947.06

STA= 4086. 4147.
PER Q= 100.0
AREA= 201.6
VEL= 10.9

1490 NH CARD USED
*SECNO 6.010

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.

6.01	5.12	1960.12	1960.12	0.00	1960.55	0.43	1.55	0.14	1960.00
2200.	879.	1321.	0.	839.	196.	0.	11.	14.	1960.00
0.05	1.05	6.74	0.01	0.060	0.020	0.060	0.000	1955.00	1350.54
0.001630	780.	805.	805.	20	9	0	0.00	1556.93	4285.49

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SECNO	DEPTH	CWSEL	CRITWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.01 CWSEL= 1960.12

STA= 1351. 3450. 3650. 4223. 4285.
PER Q= 28.9 11.0 0.0 60.0
AREA= 613.0 224.7 0.9 196.0
VEL= 1.0 1.1 0.2 6.7

1490 NH CARD USED
*SECNO 6.140

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8650.0 13125.0 TYPE= 1 TARGET= -8650.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1966.20 ELREA= 1966.00

LOB REALIGNED UPSTREAM, FLAT CROWN 10300 TO 11530 @ 1966 EL.

5.14	7.50	1964.90	1964.90	0.00	1967.77	2.87	1.75	0.73	1966.20	
4200.	0.	4200.	0.	0.	309.	0.	19.	22.	1966.00	
0.05	0.00	13.59	0.00	0.063	0.020	0.050	0.000	1957.40	12996.53	
0.003607	403.	725.	730.	20	11	0	0.00	53.94	13050.47	

FLOW DISTRIBUTION FOR SECNO= 6.14 CWSEL= 1964.90

STA= 12997. 13052.
PER Q= 100.0
AREA= 309.0
VEL= 13.6

1490 NH CARD USED
*SECNO 6.300
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8850.0 13100.0 TYPE= 1 TARGET= 4250.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1972.00 ELREA= 1972.00

LOB, ENCR TOMIYASU LANE. CROWN 10450 TO 11150 @ 1972 EL. LC=12455.

5.30	7.33	1971.33	1971.33	1971.19	1974.17	2.84	3.08	0.00	1972.00
4200.	0.	4200.	0.	0.	311.	0.	25.	23.	1972.00
0.08	0.00	13.51	0.00	0.063	0.020	0.060	0.000	1964.00	12423.08
0.003590	520.	855.	865.	20	10	0	0.00	54.75	12477.83

FLOW DISTRIBUTION FOR SECNO= 6.30 CWSEL= 1971.33

STA= 12423. 12479.
PER Q= 100.0
AREA= 310.8
VEL= 13.5

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1
T2
T3 100-YR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	-1.000000	0.00	0.0	0.	1955.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE

15.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 15.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.850
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1948.20 ELREA= 1949.70

EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.

5.85	4.99	1947.19	1947.19	1955.00	1949.07	1.88	0.00	0.00	1948.20
2300.	0.	2300.	0.	0.	209.	0.	0.	0.	1949.70
0.00	0.00	11.01	0.00	0.090	0.020	0.050	0.000	1942.20	4085.14
0.003972	500.	730.	730.	0	13	0	0.00	56.01	4141.15

1
FLOW DISTRIBUTION FOR SECNO= 5.85 CWSEL= 1947.19

STA= 4085. 4147.
PER Q= 100.0
AREA= 208.9
VEL= 11.0

1490 NH CARD USED
*SECNO 6.010

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.

5.01	5.38	1960.08	1960.38	0.00	1960.59	0.51	2.15	0.14	1960.00
2300.	890.	1410.	0.	773.	193.	0.	11.	14.	1960.00
0.05	1.15	7.29	0.31	0.060	0.020	0.060	0.000	1955.00	1368.51
0.001941	780.	805.	805.	20	15	0	0.00	1502.46	4285.31

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 5.01 CWSEL= 1960.08

STA= 1369. 3450. 3650. 4228. 4285.
PER Q= 27.9 10.8 0.3 61.3
AREA= 556.4 215.7 0.3 193.5

```
     VEL=       1.2       1.1       0.1       7.3

 1490 NH CARD USED
 *SECNO 6.140

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     8650.0    13125.0  TYPE=      1  TARGET=   -8650.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1966.20 ELREA=      1966.00

          LOB REALIGNED UPSTREAM. FLAT CROWN 10300 TO 11530 @ 1966 EL.
      6.14       7.68   1965.08   1965.08      0.00   1968.04      2.96      1.90      0.73   1966.20
    4400.          0.    4400.         3.         0.     319.         0.      18.      22.    1966.00
      0.06       0.00     13.81      0.00      0.063     0.020     0.050     0.000  1957.40 12996.18
 0.003630        400.      725.      730.         20        14         0      0.00    54.53 13050.72

 FLOW DISTRIBUTION FOR SECNO=       6.14           CWSEL=   1965.08

 STA=   12996.    13052.
   PER_Q=     100.0
    AREA=     318.7
     VEL=      13.8

 1490 NH CARD USED
 *SECNO 6.300

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL

1
  14-FEB-88     13:59:31                                                                    PAGE    13

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


  3693 PROBABLE MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED

  3470 ENCROACHMENT STATIONS=     8650.0    13100.0  TYPE=      1  TARGET=    4250.000
          LOB, ENCR TOMIYASU LANE. CROWN 10450 TO 11150 @ 1972 EL. LC=12455.
       6.30       8.19   1972.19   1972.19   1971.19   1972.71      0.52      1.31      0.24   1972.00
     4400.       1731.     2666.         3.      2418.     359.        11.       40.       42.    1972.00
       0.10       0.72      7.43      0.24      0.063     0.020     0.050     0.000  1964.00  8850.00
  0.000949        520.      855.      865.         20         9         0      0.00  3224.68 12544.85

  FLOW DISTRIBUTION FOR SECNO=       6.30           CWSEL=   1972.19

  STA=     8850.    10530.    10720.    10900.    11450.    12070.    12360.    12422.    12479.    12545.
    PER_Q=      6.5       4.7       6.9       4.8      12.2       4.1       0.2      60.6       0.1
     AREA=    571.3     262.2     304.5     380.4     638.8     239.6      21.2     358.9      10.7
      VEL=      0.5       0.8       1.0       0.6       0.8       0.7       0.4       7.4       0.2

1
  14-FEB-88     13:59:31                                                                    PAGE    14
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

 25-YEAR WITH LINED CHAN
SUMMARY PRINTOUT TABLE  150
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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	5.850	0.00	0.00	0.00	1942.20	2100.00	1946.94	1946.94	1948.74	40.30	10.77	194.95	330.82
*	5.850	0.00	0.00	0.00	1942.20	2200.00	1947.06	1947.06	1948.91	40.22	10.91	201.57	346.89
*	5.850	0.00	0.00	0.00	1942.20	2300.00	1947.19	1947.19	1949.07	39.72	11.01	208.90	364.93
*	6.010	805.00	0.00	0.00	1955.00	2100.00	1960.04	1960.04	1960.50	17.24	6.82	915.93	505.73
*	6.010	805.00	0.00	0.00	1955.00	2200.00	1960.12	1960.12	1960.55	16.30	6.74	1034.75	544.99
*	6.010	805.00	0.00	0.00	1955.00	2300.00	1960.08	1960.08	1960.59	19.41	7.29	966.03	522.03
*	6.140	725.00	0.00	0.00	1957.40	4000.00	1964.69	1964.69	1967.50	36.36	13.44	297.65	663.33
*	6.140	725.00	0.00	0.00	1957.40	4200.00	1964.90	1964.90	1967.77	36.07	13.59	309.01	699.33
*	6.140	725.00	0.00	0.00	1957.40	4400.00	1965.08	1965.08	1968.04	36.30	13.81	318.66	730.27
*	6.300	855.00	0.00	0.00	1964.00	4000.00	1971.19	1971.19	1973.90	34.95	13.20	303.14	676.61
*	6.300	855.00	0.00	0.00	1964.00	4200.00	1971.33	1971.33	1974.17	35.90	13.51	310.80	700.94
*	6.300	855.00	0.00	0.00	1964.00	4400.00	1972.19	1972.19	1972.71	9.49	7.43	2787.64	1428.30

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	5.850	2100.00	1946.94	0.00	0.00	-8.06	54.64	0.00
*	5.850	2200.00	1947.06	0.12	0.00	-7.94	55.29	0.00
*	5.850	2300.00	1947.19	0.13	0.00	-7.81	56.01	0.00
*	6.010	2100.00	1960.04	0.00	13.11	0.00	1461.47	805.00
*	6.010	2200.00	1960.12	0.08	13.07	0.00	1556.93	805.00
*	6.010	2300.00	1960.08	-0.04	12.89	0.00	1502.46	805.00
*	6.140	4000.00	1964.69	0.00	4.65	0.00	53.23	725.00
*	6.140	4200.00	1964.90	0.21	4.78	0.00	53.94	725.00
*	6.140	4400.00	1965.08	0.18	5.00	0.00	54.53	725.00
*	6.300	4000.00	1971.19	0.00	6.50	0.00	54.28	855.00
*	6.300	4200.00	1971.33	0.14	6.43	0.14	54.75	855.00
*	6.300	4400.00	1972.19	0.86	7.11	1.00	3224.68	855.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=     5.850  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     5.850  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     5.850  PROFILE= 3  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=     6.010  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.010  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.010  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.010  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.010  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.010  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.010  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.010  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.010  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     6.140  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.140  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.140  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.140  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.140  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.140  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.140  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.140  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.140  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     6.300  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.300  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.300  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.300  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.300  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.300  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.300  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.300  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.300  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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See 5.85 - 6.30

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C        5
C    5.85 EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
C    5.85 LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.
C    6.01 SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.
C    6.14 L03 REALIGNED UPSTREAM. FLAT CROWN 10300 TO 11530 @ 1966 EL.
C    6.30 L03, ENCR TOMIYASU LANE. CROWN 10450 TO 11150 @ 1972 EL. LC=12455.
T1       LAS VEGAS WASH OVERFLOW STUDY
T2       NONDAMAGING FLOW ANALYSIS
T3       25-YEAR WITH LINED CHANNEL IN EXTREME RIGHT SIDE OF FLOOD PLAIN.
J1     0         2                  -1                                    1955
J2     1         0        -1
QT     3      2100      2200      2300                                              15
NC                                  0.1       0.3
NH     5     0.06       820     0.085      2870     0.065      4082      0.02      4147      0.05
NH  4295
X1  5.85        27      4082      4147       500       730       730
X3    10
GR  1954         0      1952       350      1952       500      1948       820      1948      1000
GR1951.7      1480      1952      1630      1952      1800    1952.9      2350    1953.8      2870
GR1952.9      3000    1952.0      3300    1950.2      3532    1948.8      3708    1950.2      3832
GR1951.4      3939    1951.1      4006      1950      4031      1949      4047    1948.2      4082
GR1942.4      4100    1942.2      4100    1942.4      4130    1949.7      4147    1952.9      4151
GR1956.0      4269      1960      4295
NH     5     0.06      1000     0.065      2050     0.060      4228      0.02      4285     0.060
NH  4327
X1  6.01        22      4228      4295       780       805       805
X3    10
GR  1968         0      1966         1      1964       400      1964       500      1961      1000
GR  1960      1400    1960.8      1800    1961.3      2050      1960      2300      1960      3000
GR1959.5      3100      1958      3450      1960      3650      1962      3700    1962.5      4000
GR  1960      4228      1956      4242      1955      4258      1956      4272      1960      4285
GR  1964      4301      1968      4327
NH     5     1.055      9500     0.065     12400      0.06     12994      0.02     13052      0.05
NH 13125
QT     3      4000      4200      4400
X1  6.14        25     12994     13052       400       730       725
X3    10                          8650
GR  1972      8400    1969.7      8650      1968      9000      1968      9500    1964.7      9950
GR1964.7     10050      1966     10300      1966     10700      1966     11250      1966     11530
GR1964.4     11800      1965     12000      1964     12140      1963     12280      1963     12400
GR  1964     12610    1965.5     12900    1966.2     12981    1966.2     12994    1957.5     13011
GR1957.4     13040      1966     13052    1967.9     13054    1969.2     13062    1970.7     13125
NH     4     0.065     11550      0.06     12422      0.02     12479      0.06     13040
ET              6.1       6.1       6.1       6.1      8850     13100
X1  6.30        21     12422     12479       520       865       855
X3    10
X4     3      1972      8480      1970      8560      1972      8850
GR  1976      7960      1974      9200      1972      9370      1972      9800      1971     10000
GR  1972     10500      1970     10720      1971     10900      1972     11450      1972     11550
GR  1970     12070    1971.5     12150    1971.7     12360      1972     12422      1964     12435
GR  1964     12465      1972     12479      1972     12525    1973.4     12670      1976     12950
GR  1980     13100
EJ
T1
T2
T3           50-YR
J1     0         3                  -1                                    1955
J2     2                  -1                                                        15
T1
T2
T3          100-YR
J1     0         4                  -1                                    1955
J2    15         0                                                                 15
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ER
EOF..

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C
C
C
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GR	1784	15900	1788	16900					
ET		6.1			8.1	9927	10073	14050	
X1	6.751	32	9928	10072	5	5	5		
X3	10								
X4	1	1771.4	10047						
BT	-4	9928	1783	1783	9947	1783	1782	10053	1783	1782
BT		10072	1783	1783					
GR	1790	160	1784	1150	1784	2940	1783	6700	1783.5	7000
GR	1783.5	7800	1784	8250	1784	8800	1782	8900	1782	9250
GR	1780	9550	1780	9850	1783	9928	1771.4	9947	1771.4	9953
GR	1782	9953	1782	9957	1771.4	9957	1770.9	9998	1782	9998
GR	1782	10002	1770.9	10002	1771.4	10043	1782	10043	1782	10047
GR	1771.4	10053	1783	10072	1783	12000	1783.5	12400	1783.5	15600
GR	1784	15900	1788	16900						
ET		6.1			8.1	9927	10073		14050	
X1	6.76				100	100	100		0.2	
X2			0				1			
X3	10									
ET		6.1			8.1	9927	10073		14050	
X1	6.761	22	9928	10072	140	220	220		0.2	
X3	10									
GR	1790	160	1784	1150	1784	2940	1783	6700	1783.5	7000
GR	1783.5	7800	1784	8250	1784	8800	1782	8900	1782	9250
GR	1780	9550	1780	9850	1783	9928	1771.4	9947	1770.9	10000
GR	1771.4	10053	1783	10072	1783	12000	1783.5	12400	1783.5	15600
GR	1784	15900	1788	16900						
ET					8.1				14100	
X1	6.92	36	11321	11410	580	840	830			
X3	10									
X4	1	1790.0	900							
GR	1793.0	680	1788	1000	1788	2000	1787	3500	1788	4850
GR	1785	6450	1785	9200	1784	9550	1784	10200	1784	10200
GR	1787.3	11000	1787.7	11145	1786.5	11169	1786.6	11200	1787.0	11289
GR	1791.0	11321	1781.8	11334	1777.7	11357	1777.7	11366	1779.0	11378
GR	1781.0	11406	1790.9	11410	1786.9	11426	1790.0	11437	1789.9	11504
GR	1788.3	11551	1788.1	11559	1788.1	11578	1788.1	11605	1788.1	11612
GR	1788.6	11622	1786	12100	1786.	12300	1788	13600	1788	16450
GR	1792	17230								
ET		6.1				11200	12370			
NC				0.1	0.3					
X1	7.14	31	12150	12369	580	1250	1200			
X3	10									
GR	1800	450	1791	1050	1790	1500	1789.5	2300	1788	3700
GR	1789	4600	1789	6200	1788	7200	1788	10450	1792.5	11200
GR	1791.0	12000	1791.0	12114	1791.0	12150	1787.0	12224	1779.2	12259
GR	1779.2	12265	1782.4	12272	1785.6	12280	1792.0	12293	1792.0	12312
GR	1798.8	12369	1791.6	12391	1793.1	12412	1792.8	12524	1792.6	12729
GR	1791.5	12878	1791.8	12931	1792	12970	1794	13300	1795	14000
GR	1795	16200	1796	16630	1800	16800				
NH	4	.050	10980	.070	12321	.025	12437	.160	13730	
X1	7.34	33	12321	12437	600	1300	1050			
X3	10									
GR	1800.0	150	1795.0	900	1790.0	3500	1792.0	5000	1792.0	6850
GR	1791.0	8600	1791.0	9500	1792.0	9600	1792.0	10010	1796.0	10980
GR	1796.0	12000	1796.3	12048	1795.8	12125	1796.6	12229	1795.7	12268
GR	1798.0	12321	1786.7	12343	1786.2	12358	1785.5	12371	1787.2	12411
GR	1796.5	12437	1794.1	12463	1794.1	12531	1794.1	12538	1796.9	12548
GR	1797.2	12571	1795.3	12600	1794.2	12626	1794.6	12642	1799.6	12656
GR	1804.4	12726	1800.5	12730	1804.0	13730				
NC				0.3	0.5					
NH	6	.045	6250	.055	9000	.045	9550	.060	11410	.025
NH	11577	0.16	12410							
X1	7.60	24	11410	11577	1200	1350	1360			
X3	10									
GR	1804.0	200	1800.0	600	1798.0	1300	1796.5	1600	1796.5	3300
GR	1799.5	4300	1799.0	6250	1799.5	6800	1796.0	8000	1796.0	8290
GR	1797.0	8450	1797.0	8800	1800.2	9550	1800.0	9930	1804.0	10730
GR	1806.0	11200	1804.5	11280	1803.9	11410	1793.8	11441	1793.8	11546

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GR1803.8   11577    1804.8    11790    1805.7    11970    1808.0    12410
ET             6.1                               11280    11790
NH         6    .045      6250      .055      8000      .045      9550      .060     11410      .025
NH     11577    0.16     12410
K1      7.601      39     11410     11577         5         5         5
K3         10
BT        -4   11410    1803.9    1803.9    11440    1803.9    1802.3    11547    1803.8    1802.3
BT             11577    1803.8    1803.8
GR1804.0         200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5        4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0        8450    1797.0      8800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0       11200    1804.5     11280    1803.9     11410    1793.8     11440    1802.3     11440
GR1802.3   11443.5    1793.8  11443.5    1793.8  11474.5    1802.3  11474.5    1802.3     11478
GR1793.8       11478    1793.8     11509    1802.3     11509    1802.3  11512.5    1793.8  11512.5
GR1793.8   11543.5    1802.3  11543.5    1802.3     11547    1793.8     11547    1803.8     11577
GR1803.8       11577    1804.8     11790    1805.7     11970    1808.0     12410
ET             6.1                               11280    11790
NH         6    .045      6250      .055      8000      .045      9550      .060     11410      .025
NH     11577    0.16     12410
K1      7.610      39     11410     11577        70        70        70
K3         10
BT        -4   11410    1803.9    1803.9    11440    1803.9    1802.3    11547    1803.8    1802.3
BT             11577    1803.8    1803.8
GR1804.0         200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5        4300    1799.0      6250    1799.5      6800    1796.0      8010    1796.0      8290
GR1797.0        8450    1797.0      8800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0       11200    1804.5     11280    1803.9     11410    1793.9     11439    1802.3     11439
GR1802.3   11444.5    1793.9  11444.5    1793.9  11473.5    1802.3  11473.5    1802.3     11479
GR1793.9       11479    1793.9     11508    1802.3     11508    1802.3  11513.5    1793.9  11513.5
GR1793.9   11542.5    1802.3  11542.5    1802.3     11547    1793.8     11547    1803.8     11577
GR1803.8       11577    1804.8     11790    1805.7     11970    1808.0     12410
ET             6.1                               11280    11790
NH         6    .045      6250      .055      8000      .045      9550      .060     11410      .025
NH     11577    0.16     12410
K1      7.611      24     11410     11577         5         5         5
K3         10
GR1804.0         200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5        4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0        8450    1797.0      8800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0       11200    1804.5     11280    1803.9     11410    1793.9     11441    1793.9     11547
GR1803.8       11577    1804.8     11790    1805.7     11970    1808.0     12410
NH         6    .040      5800      .070      7700      .040     10500      .120     11640      .025
NH     11930    .160     13620
K1       7.68      32     11640     11930       290       220       280
K3         10
GR1810.0         400    1800.0      1650    1799.0      2200    1799.0      3750    1800.0      4000
GR1802.0        4450    1801.0      5800    1801.0      6800    1801.0      7700    1800.0      8070
GR1800.0        8350    1797.5      8550    1797.5      8700    1800.0      9060    1799.0      9250
GR1799.0        9400    1800.0      9610    1804.0     10500    1804.4     11000    1808.3     11640
GR1808.0       11710    1796.0     11760    1794.5     11790    1794.5     11830    1796.0     11840
GR1808.0       11879    1809.5     11930    1806.5     12200    1806.8     12470    1808.0     12570
GR1809.0       13100    1812.0     13620
ET             6.1                               12418    12669
VC                                  0.1       0.3
NH         5    .040      3400      .060     12470      .025     12766      .040     13400      .160
NH     14200
X1      7.97      34     12454     12563      1750      1340      1610
X3         10
X4          2  1813.0     11000    1813.0     11700
GR1816.0         500    1812.0      1000    1810.0      1800    1810.0      2400    1813.0      3400
GR1811.0        4600    1811.0      7500    1812.0      8500    1810.0      9450    1810.0     10000
GR1815.2       12000    1816.6     12227    1815.6     12313    1813.6     12367    1815.1     12418
GR1812.8       12442    1812.9     12454    1812.0     12470    1806.5     12503    1806.0     12515
GR1806.0       12526    1806.7     12540    1808.8     12561    1812.4     12563    1813.7     12597
GR1814.5       12659    1813.0     12701    1814.0     12736    1815.0     12756    1816.0     12766
GR1816.7       12794    1815.0     13250    1816.0     13400    1816.0     14200
NH         6    .040      3800      .060      7800      .050      8941      .030      9014      .050
NH      9204    0.14     11140
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X1   8.19        39      8941      9014      1110       930      1140
X3       10
GR1823.0        300    1817.0      1200    1816.0      2500    1820.0      3800    1818.0      4980
GR1819.0       5810    1816.0      7030    1820.0      7800    1820.0      8010    1820.0      8000
GR1819.2       8000    1819.6      8169    1819.4      8498    1820.1      8794    1820.5      8949
GR1821.5       8875    1820.3      8921    1822.6      8927    1823.9      8941    1812.5      8952
GR1810.6       8975    1810.6      8988    1813.2      9001    1814.1      9010    1823.9      9014
GR1820.9       9040    1823.5      9062    1326.7      9084    1826.3      9115    1820.8      9150
GR1819.5       9153    1821.5      9204    1822.0      9255    1823.0      9550    1823.0     10300
GR1823.0      10530    1824.0     10650    1824.0     10940    1824.5     11140
QT       1     6260
NH       5     .040      4430      .060      9005      .025      9094      .030      9400      0.14
NH   10560
X1   8.27        23      9006.     9094.      350       300       330
X3       10                                                   1825.0    1825.0
X4       3    1821.0      8000    1823.0      8650    1823.0      8850
GR1824.0        600    1820.0      1300    1819.0      2400    1820.0      3200    1824.0      4000
GR1822.0       4430    1819.5      5200    1821.0      5850    1819.5      6770    1819.5      7400
GR 1824.      9000.     1824.     9006.     1814.0     9018.    1813.7     9050.    1814.0     9082.
GR1822.2       9094.     1823.     9100.     1823.0     9290    1824.0      9400    1824.5      9500
GR1825.0      10050    1825.0     10450    1826.0     10560
QT       1     5330
NC                                 0.3       0.5
NH       5     .040      4430      .060      9006      .015      9095      .030      9400      0.14
NH   10560
X1   8.271       48      9017.     9095.        5         5         5
X3       10                                                   1825.0    1825.0
X4       3    1821.0      8000    1823.0      8650    1823.0      8850
BT      -4      9006    1824.0                9017    1824.1    1821.7      9025    1823.2    1821.7
BT              9095    1823.2    1821.7
GR1824.0        600    1820.0      1300    1819.0      2400    1820.0      3200    1824.0      4000
GR1822.0       4430    1819.5      5200    1821.0      5850    1819.5      6770    1819.5      7400
GR 1824.      9000.     1824.     9006.     1824.0     9017    1813.7    9017.0    1813.7      9025
GR1821.7       9028.3  1813.7     9028.3   1813.7     9034.3   1821.7    9034.3    1821.7     9037.6
GR1813.7       9037.6  1813.7     9043.6   1821.7     9043.6   1821.7    9047.2    1813.7     9047.2
GR1813.7       9057.2  1821.7     9057.2   1321.7       9060   1813.7      9060    1813.7       9070
GR1821.7         9070  1921.7       9073   1813.7       9073   1813.7      9083    1821.7       9083
GR1821.7       9086.6  1813.7     9086.6   1813.7     9095.0   1823.2      9095    1823.2       9095
GR1822.2       9096.     1823.     9100.     1823.0     9290    1824.0      9400    1824.5      9500
GR1825.0      10050    1825.0     10450    1826.0     10560
ET                6.1                                 8940      9140
NC   .055       0.14      .015       0.1       0.3
X1   8.31         48.    9040.     9116.      235.      235.      235.
X2
X3       10
X4        1   1824.0      8280
BT       -5      8940    1824.0                9040    1824.1    1822.0      9046    1823.2    1822.0
BT             9116.0    1824.1    1822.0      9120    1824.0
GR1826.5        800    1822.0      1200    1822.0      2400    1823.0      3200    1823.0      3200
GR1824.0       4000    1823.8      5850    1823.5      6050    1821.0      6770    1822.0      7800
GR 1826.      8900.     1826.     8940      1824.1     9040    1814.0    9040.0    1814.0      9046
GR1822.0       9046    1822.0     9051.3   1814.0     9051.3   1814.0    9055.3    1822.0     9055.3
GR1822.0      9060.6   1814.0     9060.6   1814.0     9064.6   1822.0    9064.6    1822.0     9070.2
GR1814.0      9070.2   1814.0     9078.2   1822.0     9078.2   1822.0    9083.0    1814.0       9083
GR1814.0       9091    1822.0       9091   1822.0       9096   1814.0      9096    1814.0       9104
GR1822.0       9104    1822.0     9109.6   1814.0     9109.6   1814.0    9116.0    1824.0       9116
GR1824.0      9120.     1826.     9140.     1824.     9148.     1823.6      9270    1823.6      9580
GR1824.0       9770    1826.0     10130    1826.0     11780
QT       1     5520
ET                6.1                                 8900      9270
NC   .055       0.14      .025       0.3       0.5
X1  8.311         23.    9014.     9140.        5.        5.        5.
X3       10
X4        1   1824.0      8280
GR1826.5        800    1822.0      1200    1822.0      2400    1823.0      3200    1823.0      3200
GR1824.0       4000    1823.8      5850    1823.5      6050    1821.0      6770    1822.0      7800
GR 1826.      8900.     1826.     8940      1824.1     9014.    1814.5    9034.      1814.     9075.
GR1814.5      9120.     1824.     9140.     1824.     9148.     1823.6      9270    1823.6      9580
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GR1824.0      9770   1826.0    10130   1826.0    11780
NC                      0.1       0.3
NH       7     .040     2020      .060     3700     0.16     5380     .040     7000     0.16
NH    7863     .025     8094      0.16    11250
X1    8.61       39.    7863.     8094.    1570.    1370.    1560.
X3      10
X4       3  1830.5     2900   1830.0     7400   1832.0     7700
GR1832.0          0  1830.0      250   1829.0     2020   1829.0     3700   1829.0     5380
GR1831.0       5970   1827.0     6250   1827.0     6730   1830.0     6880   1825.1     7000
GR1833.1  007741   1833.1  007741   1833.1  007741   1833.1  007741   1833.1  007741
GR1832.7  007754   1830.2  007793   1830.2  007836   1832.8  007863   1832.6  007923
GR1829.9  007952   1822.7  007970   1818.9  008025   1820.1  008039   1822.1  008062
GR1830.3  008077   1832.3  008094   1832.3  008135   1832.4  008173   1832.0     8180
GR1832.0       8710   1832.0     9180   1832.0     9230   1832.0    10070   1832.4    10360
GR1833.0      10500   1834.0    10750   1834.0    11100   1836.0    11250
NH       4     .040     1700     0.16     7007     .025     7188     0.16    11180
X1    8.85       49     7007.    7188.    1370.    1200.    1250.
X3      10                                                          1837.0
X4       1  1836.0     4180
GR1840.0          0  1837.0      250   1837.0     1700   1837.0     2550   1840.0     3730
GR1837.0       4900   1833.3  005000   1834.2  005102   1833.9  005248   1834.6  005315
GR1833.9  005362   1834.0  005458   1834.2  005626   1834.0  005773   1833.5  005856
GR1833.7  005977   1834.6  006004   1834.3  006111   1833.7  006220   1837.7     6395
GR1837.7  006554   1838.1  006837   1838.8  006858   1839.4  006879   1837.9  006900
GR1837.2  006953   1837.0  006981   1837.6  007007   1834.4  007013   1833.0  007025
GR1827.3  007031   1825.1  007044   1824.4  007064   1824.4  007099   1826.2  007119
GR1825.9  007122   1833.5  007134   1835.6  007142   1837.7  007163   1837.8  007188
GR1837.8       7250   1838.0     7420   1838.0     8170   1835.5     8550   1835.7     9570
GR1838.0      10080   1840.0    10450   1842.0    10870     1844    11130
QT       1     5450
NC                      0.3       0.5
NH       6     .040     4500     0.16     9100     .080     9910     .025    10070     0.16
NH   11770     0.12    13920
X1    8.90       35     9910.    10070.     170.     360.     230.
X3      10                                                          1837.8  1838.0
X4       2  1840.0     2800   1836.5     6980
GR1843.0       2650   1837.5     3050   1837.5     4500   1837.5     5350   1841.0     6530
GR1839.0       7700   1837.0     7800   1836.0     7880   1836.0     8140   1835.9     8550
GR1835.2       8850   1836.5     9100   1837.6     9340   1837.5     9870   1837.8     9890
GR1837.8       9910   1826.0     9950   1825.2     9955   1825.2    10020   1826.0    10025
GR1838.0      10070   1838.0    10270   1839.1    10430   1838.0    10800   1837.     11000.
GR1837.0      11770   1838.0    11940   1838.0    12530   1838.0    12810   1840.0    12870
GR1840.0      13200   1842.0    13250   1844.0    13580   1844.0    13900   1846.0    13920
NH       6     .040     4500     0.16     9100     .080     9910     .015    10070     0.16
NH   11770     0.12    13920
X1    8.901      50     9950.    10019.      5.       5.       5.
X3      10                                                          1837.8  1838.0
X4       3  1840.0     2800   1836.5     6980   1838.0    10070
BT      -7     9890   1837.8                     9910   1838.1                9950   1838.5  1832.4
BT             9988   1838.7   1832.4    10019   1838.5   1832.4    10070   1838.2
BT            10270   1838.0
GR1843.0       2650   1837.5     3050   1837.5     4500   1837.5     5350   1841.0     6530
GR1839.0       7700   1837.0     7800   1836.0     7880   1836.0     8140   1835.9     8550
GR1835.2       8850   1836.5     9100   1837.6     9340   1837.5     9870   1837.8     9890
GR1837.8       9910   1837.8     9950   1825.2     9950   1825.2     9959   1832.4     9959
GR1832.4       9964   1825.2     9964   1825.2     9974   1832.4     9974   1832.4     9979
GR1825.2       9979   1825.2     9989   1832.4     9989   1832.4     9994   1825.2     9994
GR1825.2      10004   1832.4    10004   1832.4    10009   1825.2    10009   1825.2    10019
GR1838.0      10019   1838.0    10270   1839.1    10430   1838.0    10800   1837.     11000.
GR1837.0      11770   1838.0    11940   1838.0    12530   1838.0    12810   1840.0    12870
GR1840.0      13200   1842.0    13250   1844.0    13580   1844.0    13900   1846.0    13920
QT             6.1                                9890    10430
NC                      0.1       0.3
NH       5     .040     4500     0.16     9100     .080     9910     .015    10070     0.16
NH   11770     0.12    13920
X1    8.91       50     9950.    10018.      70.      70.      70.
X2
X3      10                                                          1838.1  1838.1
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X4	3	1540.0	2800	1836.5	5980	1838.0	10070			
BT	-7	9890	1837.8		9910	1838.1		9950	1838.5	1832.8
BT		9988	1838.7	1832.8	10018	1838.5	1832.8	10070	1838.2	
BT		10270	1838.0							
GR1843.0		2650	1837.5	3050	1837.5	4500	1837.5	5350	1841.0	6530
GR1839.0		7700	1837.0	7800	1836.0	7880	1836.0	8140	1835.9	8550
GR1835.2		8850	1836.5	9100	1837.6	9340	1837.5	9870	1837.8	9890
GR1837.8		9910	1837.8	9950	1825.6	9950	1825.6	9958	1832.8	9958
GR1832.8		9955	1825.6	9965	1825.6	9973	1832.8	9973	1832.8	9980
GR1825.6		9980	1825.6	9988	1832.8	9988	1832.8	9995	1825.6	9995
GR1825.6		10003	1832.8	10003	1832.8	10010	1825.6	10010	1825.6	10018
GR1838.0		10018	1838.0	10270	1839.1	10430	1838.0	10800	1837.	11000.
GR1837.0		11770	1838.0	11940	1838.0	12530	1838.0	12810	1840.0	12870
GR1840.0		13200	1842.0	13250	1844.0	13580	1844.0	13900	1846.0	13920
BT	1	5520								
ET		6.1				9910	10900			
NC				0.3	0.5					
NH	5	.040	4500	0.16	9100	.080	9910	.025	10070	0.16
NH	11770	0.12	13920							
X1	8.911	35	9945.	10025.	5.	5.	5.			
X3	10							1838.1	1838.1	
X4	2	1840.0	2800	1836.5	6980					
GR1843.0		2650	1837.5	3050	1837.5	4500	1837.5	5350	1841.0	6530
GR1839.0		7700	1837.0	7900	1836.0	7880	1836.0	8140	1835.9	8550
GR1835.2		8850	1836.5	9100	1837.6	9340	1837.5	9870	1837.8	9890
GR1837.8		9910	1828.0	9945	1825.6	9960	1825.6	10015	1828.0	10025
GR1838.0		10070	1838.0	10270	1839.1	10430	1838.0	10810	1837.	11000.
GR1837.0		11770	1838.0	11940	1838.0	12530	1838.0	12810	1840.0	12870
GR1840.0		13200	1842.0	13250	1844.0	13580	1844.0	13910	1846.0	13920
BT	1	3875								
ET		6.1				7186	7361			
NH	5	.040	2000	0.16	7219	.025	7349	0.16	8360	.11
NH	10960									
X1	9.06	32.	7219.	7349.	650.	830.	820.			
GR1845.0		500	1840.0	1400	1840.0	2000	1841.0	2800	1844.0	4450
GR1841.0		4800	1842.5	4850	1840.9	5000	1840.0	5350	1840.0	7110
GR1842.3		007186	1840.5	007219	1840.7	007238	1833.3	007255	1828.1	007301
GR1832.1		007328	1841.1	007349	1841.9	007361	1840.3	007375	1840.7	007406
GR1840.3		007451	1840.0	7670	1840.0	8360	1841.0	8750	1841.2	9140
GR1842.0		9130	1842.5	9450	1843.1	9900	1844.0	10100	1846.0	10510
GR1846.0		10700	1846.5	10960						
NC				0.1	0.3					
NH	9	.040	4000	0.16	4850	.035	5750	0.13	6630	.030
NH	7212	.026	7447	.036	7900	.050	8700	0.16	11320	
ET		6.1				6990	7900			
X1	9.30	39	7212	7447	1040	1070	1250			
X3	10					7900	1846.0			
X4	1	1850.0	1150							
GR1852.0		1000	1845.0	1880	1844.0	3080	1845.0	4000	1846.0	4700
GR1848.0		4950	1846.8	4950	1846.0	5000	1846.0	5300	1845.7	5430
GR1846.2		5750	1843.5	6150	1847.0	6990	1847.0	7152	1847.1	7212
GR1837.8		007232	1835.2	007252	1834.4	007263	1837.8	007291	1842.1	007307
GR1841.4		7327	1840.4	7346	1840.9	7376	1841.2	7390	1840.2	7407
GR1843.8		7422	1844.7	7447	1843.4	7468	1845.5	7840	1846.0	7900
GR1845.5		7980	1845.5	8700	1845.5	9520	1846.0	9760	1848.0	10000
GR1850.0		10400	1850.0	11080	1851.3	11150	1852.0	11320		
ET		6.1				4900	6120			
NC				0.3	0.5					
NH	8.	.080	2650	.040	4000	.060	4700	.037	5370	.025
NH	5496	.037	6120	.055	7650	.080	8900			
X1	9.41	43	5370.	5496.	840.	330.	570.			
X4	3	1850.0	-300	1850.0	1800	1848.5	3410			
GR1853.0		-800	1849.0	2200	1849.0	2650	1849.9	2760	1849.0	2960
GR1848.5		4000	1848.0	4150	1847.9	4250	1847.9	4700	1848.5	4900
GR1847.9		005000	1847.9	005065	1847.9	005118	1847.8	005134	1847.9	005242
GR1847.9		005264	1847.9	005306	1848.0	005352	1847.9	005370	1840.5	005389
GR1840.5		005417	1840.5	005461	1845.4	005480	1846.5	005496	1847.4	005535
GR1847.5		005559	1847.2	005579	1847.4	005601	1847.5	005631	1846.9	005676

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GR1846.1  005735  1848.3  005762  1846.1  005790  1847.2  005815  1848.2  005950
GR1849.5    6120  1848.3    6200  1849.0    6600  1849.0    7400  1850.0    7650
GR1850.0    8000  1852.0    8280  1854.0    8900
ET              6.1                     4900    6120
NH     8.    .080    2650    .040    4000    .060    4700    .037    5370    .015
NH  5496    .037    6120    .055    7650    .080    8900
X1 9.411      58    5391.   5459.      5.      5.       5
X4       1 1848.5    3410
BT    -19    2760  1849.9  1849.9    3410  1849.0  1848.5    4000  1848.9  1848.5
BT           4250  1849.9  1847.9    5065  1849.9  1847.9    5184  1850.7  1847.9
BT           5264  1851.3  1847.9    5391  1851.4  1847.8    5459  1851.4  1847.8
BT           5559  1851.0  1847.8    5676  1851.0  1848.9    5735  1851.0  1846.1
BT           5752  1851.0  1848.3    5950  1851.1  1848.2    6200  1850.1  1848.3
BT           6600  1850.1  1849.0    7400  1850.1  1849.0    7650  1850.1  1850.0
BT           8000  1850.0  1950.0
GR1850.0     1800  1849.0    2200  1849.0    2650  1949.9    2760  1849.0    2560
GR1848.5     4000  1848.9    4150  1847.9    4250  1847.9    4700  1848.5    4900
GR1847.9  005000  1847.9  005065  1847.9  005118  1847.8  005134  1847.9  005242
GR1847.9  005264  1847.9  005306  1848.0  005352  1847.9  005370  1847.8  005391
GR1840.5    5391  1840.5    5401  1847.8    5401  1847.8    5404  1840.5    5404
GR1840.5    5415  1847.8    5415  1847.8    5418  1840.5    5418  1840.5    5429
GR1847.8    5429  1847.8    5434  1840.5    5434  1840.5    5445  1847.8    5445
GR1847.8    5448  1840.5    5448  1840.5    5459  1847.8    5459  1847.4    5535
GR1847.5  005559  1847.2  005579  1847.4  005601  1847.5  005631  1848.9  005676
GR1846.1  005735  1848.3  005762  1846.1  005790  1847.2  005815  1848.2  005950
GR1849.5    6120  1848.3    6200  1849.0    6600  1849.0    7400  1850.0    7650
GR1850.0    8000  1852.0    8280  1854.0    8900
VC              0.1     0.3
NH     5.    .090    2350    .035    4500.   .060    5000.   .015    5120.   .040
NH  8630.
ET              5.1                     5000    5100
K1   9.43      48    5020.   5097.    110.    110.    110.
X3      10                                      1851.0  1851.0
BT    -14    4400  1850.0  1850.0    5000  1851.4  1850.0    5020  1851.4  1849.1
BT           5087  1850.1  1849.1    5123  1851.0  1851.0    5400  1851.8  1851.0
BT           5500  1851.2  1850.0    5600  1851.0  1850.0    5750  1850.2  1850.0
BT           6120  1850.0  1850.0    7200  1850.1  1849.5    7450  1850.6  1850.0
BT           8150  1852.7  1852.0    8630  1854.2
GR1850.0     1500  1849.0    1750  1849.0    2250  1849.0    2250  1849.0    2250
GR1850.0     2350  1850.0    2350  1850.0    2350  1849.5    2450  1849.5    3700
GR1849.5    4000.  1850.0    4400.   1850.   5000.  1849.2    5020  1841.8    5020
GR1841.8     5029  1849.1    5029  1849.1    5034  1841.8    5034  1841.8    5043
GR1849.1     5043  1849.1    5048  1841.8    5048  1841.8    5057  1849.1    5057
GR1849.1     5064  1841.8    5064  1841.8    5073  1849.1    5073  1849.1    5078
GR1841.8     5078  1841.8    5087  1849.2    5087  1849.2    5087  1850.0    5100
GR 1850.     5100.   1851.   5120.  1851.0    5400  1850.0    5500  1850.0    5600
GR1850.0     5750  1850.0    6120  1849.5    6200  1849.5    7200  1850.0    7450
GR1852.0     8150  1854.0    8500  1854.2    8630
ET              6.1                     4470    5730
VC                      0.3     0.5
NH     5.    .090    2350    .035    4500.   .060    5000.   .025    5100.   .040
NH  8630.
X1 9.431      26    5000.   5100.      5.      5.      5.
X3      10                                      1851.0  1851.0
GR1850.0     1500  1849.0    1750  1849.0    2250  1849.0    2250  1849.0    2250
GR1850.0     2350  1850.0    2350  1850.0    2350  1849.5    2450  1849.5    3700
GR1849.5    4000.  1850.0    4400.   1850.   5000.  1841.8    5040.  1841.8   5070.
GR 1850.     5100.   1851.   5120.  1851.0    5400  1850.0    5500  1850.0    6120
GR1849.5     6200  1849.5    7200  1850.0    7450  1852.0    8150  1854.0    8500
GR1854.2     8630
ET              6.1                     7280    8300
NH     6    .080    5000    .060    6675.   .035    7300.   .060    7655.   .027
NH  7845.    .060   11250
K1   9.47      87    7655    7845     185     185     185
X3      10
X4       1 1842.3    7728
GR1852.0     4200  1851.0    4450  1850.0    4900  1850.0    4900  1850.0    4900
GR1851.6  005000  1851.4  005059  1850.7  005063  1850.9  005115  1850.4  005147
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GR1850.9  005132  1851.7  005217  1850.4  005256  1850.8  005314  1849.7  005380
GR1850.1  005445  1850.4  005631  1850.4  005694  1850.1  005790  1849.9  005861
GR1849.9  005900  1849.6  005925  1849.3  005941  1849.7  005988  1849.9  006040
GR1849.9  006037  1849.2  006171  1849.2  006214  1848.9  006298  1849.2  006340
GR1849.5  006412  1849.5  006461  1849.6  006511  1849.2  006558  1848.4  006675
GR1850.3  006715  1849.7  006735  1850.4  006804  1850.4  006862  1849.6  006928
GR1849.9  006931  1849.9  007041  1849.3  007097  1850.4  007142  1851.2  007181
GR1850.7  007250  1850.1  007276  1850.3  007300  1850.7  007318  1851.2  007345
GR1851.0  007387  1851.4  007425  1851.4  007484  1851.8  007524  1850.8  007556
GR1850.7  007591  1851.2  007622  1852.0  007655  1851.3  007680  1844.5  007702
GR1842.3  007758  1844.5  007777  1843.8  007783  1850.4  007803  1850.7  007845
GR1850.4  007893  1850.3  007955  1850.4  007996  1850.3  008065  1850.1  008129
GR1849.3  008190  1850.1  008239  1849.7  008253  1849.2  008324  1850.0  008364
GR1851.4  008384  1849.7  008418  1849.9  008453  1849.9  008512  1850.8  008521
GR1848.3    9000  1848.3    9500  1849.2   10200  1850.0   10350  1852.0   10700
GR1854.0   11030  1856.0   11250
EJ


ER
EOF..
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     34
   6.75  Lamb Blvd - Normal Bridge routine - 1 ft debris loading
   6.75  Q500 restricted to 1:1 expansion from 6.92 to 6.16
   6.75  CL = 10000
   6.92  CL = 11370
   7.14  CL = 12260
   7.34  CL = 12370
   7.60  Owens Avenue Bridge - normal bridge routine - 2 ft debris loading
   7.60  CL = 11490
   7.68  CL = 11800
   7.97  CL = 12520
   8.19  START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
   8.19  CL = 8980
   8.27  LAKE MEAD BLVD BRIDGE
   8.27  Carey Ave Q25 breakout returns to channel
   8.27  CL = 9050
  8.271  Q25 breakout in ROB is subtracted from channel Q
   8.31  CL = 9080
   8.61  CL = 8010
   8.85  CL = 7090
   8.90  CAREY AVE BRIDGE
   8.90    Arch openings modeled as RCB's.  OK for COE flows, but for
   8.90    lower flows (not pressure flow) should change GR cards.
   8.90  CL = 10000
   8.91  CL = 10000
  8.911  Q25 reduced for LOB and ROB breakouts.  ROB returns downstream
  8.911  of Carey Ave bridge.  LOB returns at Pecos/Lake Mead.
   9.06  CL = 7310
   9.30  CL = 7270
   9.41  LAS VEGAS BLVD BRIDGE
   9.41  Q25 has boundaries from 9.41 to 9.47 limited with ET cards
   9.41  to make them consistent with location of breakouts upstream.
   9.41  CL = 15430
   9.43  CL = 15050
   9.47  CL = 7740
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - 25-YEAR
J1             2                    0.002                          1780.9
J2       1            -1                                                    15
QT     4.    6400   13000    24000    84000
ET                                      8.1                        19300
NC   .070     .080     .030      0.1      0.3
NH       9   0.130     4690    0.100    13425    0.130    14809    0.030    14942    0.035
NH   15039   0.045    16195    0.100    16755    0.045    21140    0.130    22860
K1    6.71      42    14942    15039      650      450      780
K4       2  1790.0     5200   1785.0     5600
K3      10
GR1796.0     2680  1792.0     3960  1792.0     4690  1784.0     8200  1784.0    12020
GR1784.0    13425  1780.0    14065  1780.0    14680  1777.4    14809  1777.6    14835
GR1778.5    14910  1779.0    14914  1784.8    14942  1773.0    14956  1769.3    14987
GR1769.3    14997  1769.3    15012  1771.9    15025  1784.8    15039  1781.9    15040
GR1781.9    15071  1781.0    15110  1781.3    15136  1781.2    15150  1781.2    15167
GR1790.0    15195  1782.1    15222  1782.1    15298  1781.8    15387  1779.8    15404
GR1779.8    15461  1781.6    15472  1781.0    15531  1780.0    15640  1780.0    15710
GR1782.8    16195  1782.0    16755  1784.0    21140  1784.0    21860  1788.0    22235
GR1792.0    22575  1796.0    22860
ET                                      8.1                        14050
NC                        0.3      0.5
K1    6.75      22     9928    10072      140      220      220
K3      10
GR   1790     160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5    7830     1784     8250     1784     8800     1782     8900     1782     9250
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GR  1780     9550     1780     9850     1783     9928   1771.4     9947   1770.9    10000
GR1771.4    10053     1783    10072     1783    12000   1783.5    12400   1783.5    15600
GR  1784    15900     1788    16900
ET              6.1                       8.1     9927    10073              14050
X1  6.751        32     9928    10072        5        5        5
X3     10
X4      1  1771.4    10047
BT     -4     9928     1783     1783     9947     1783     1782    10053     1783     1782
BT         10072     1783     1783
GR  1790      160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5     7800     1784     9250     1784     8900     1782     8900     1782     9250
GR  1780     9550     1780     9850     1783     9928   1771.4     9947   1771.4     9953
GR  1782     9953     1782     9957   1771.4     9957   1770.9     9998     1782     9998
GR  1782    10002   1770.9    10002   1771.4    10043     1782    10043     1782    10047
GR1771.4    10053     1783    10072     1783    12000   1783.5    12400   1783.5    15600
GR  1784    15900     1788    16900
ET              6.1                       8.1     9927    10073              14050
X1  6.76                                   100      100      100                0.2
X2                       3                                    1
X3     10
ET              6.1                       8.1     9927    10073              14050
X1  6.761        22     9928    10072      140      220      220                0.2
X3     10
GR  1790      160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5     7800     1784     9250     1784     8900     1782     8900     1782     9250
GR  1780     9550     1780     9850     1783     9928   1771.4     9947   1770.9    10000
GR1771.4    10053     1783    10072     1783    12000   1783.5    12400   1783.5    15600
GR  1784    15900     1788    16900
ET                                         8.1                              14100
X1  6.92         36    11321    11410      580      840      830
X3     10
X4      1  1790.0      900
GR1793.0      690     1788     1000     1788     2000     1787     3500     1788     4950
GR  1785     6450     1785     9200     1784     9550     1794    10200     1794    10200
GR1787.3    11000   1787.7    11145   1786.5    11169   1796.6    11200   1787.0    11289
GR1791.0    11321   1781.8    11334   1777.7    11357   1777.7    11366   1779.0    11378
GR1781.0    11406   1790.9    11410   1786.9    11426   1790.0    11437   1789.9    11504
GR1788.3    11551   1788.1    11569   1788.1    11578   1788.1    11605   1788.1    11612
GR1786.6    11622     1786    12100     1786.    12300     1788    13600     1788    16450
GR  1792    17230
ET              6.1                                 11200    12370
NC                                 0.1       0.3
X1  7.14         31    12150    12369      580     1250     1200
X3     10
GR  1800      450     1791     1050     1790     1500   1789.5     2300     1788     3700
GR  1789     4600     1789     6200     1788     7200     1788    10450   1792.5    11200
GR1791.0    12000   1791.0    12114   1791.0    12150   1787.0    12224   1786.2    12259
GR1779.2    12265   1782.4    12272   1785.6    12280   1792.0    12293   1792.0    12312
GR1798.8    12369   1791.6    12391   1793.1    12412   1792.8    12524   1790.6    12729
GR1791.5    12979   1791.8    12991     1792    12970     1794    13300     1795    14000
GR  1795    16200     1796    16630     1800    16800
VH         4  .050    10980     .070    12321     .025    12437     .160    13730
X1  7.34         33    12321    12437      600     1300     1050
X3     10
GR1800.0      150   1795.0      900   1790.0     3500   1792.0     5000   1792.0     6850
GR1791.0     8600   1791.0     9500   1792.0     9600   1792.0    10000   1796.0    10980
GR1796.0    12000   1796.3    12048   1795.8    12125   1796.6    12229   1795.7    12268
GR1798.0    12321   1786.7    12343   1786.2    12358   1785.5    12371   1787.2    12411
GR1796.5    12437   1794.1    12463   1794.1    12531   1794.1    12538   1796.9    12548
GR1797.2    12571   1795.3    12600   1794.2    12626   1794.6    12642   1799.6    12656
GR1804.4    12726   1800.5    12730   1804.0    13730
NC                                 0.3       0.5
VH         6  .045     6250     .055     8000     .045     9550     .060    11410     .025
VH     11577  0.15    12410
X1  7.69         24    11410    11577     1200     1350     1360
X3     10
GR1804.0      200   1800.0      900   1798.0     1300   1796.5     1600   1796.5     3300
GR1799.5     4300   1799.0     6250   1799.5     6800   1796.0     8000   1796.0     8290
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GR1797.9    8450    1797.0    8800    1800.0    9550    1800.0    9930    1804.0    10730
GR1806.0   11200    1804.5   11280    1803.9   11410    1793.8   11441    1793.8   11546
GR1803.8   11577    1804.8   11790    1805.7   11970    1808.0   12410
ET             6.1                               11280    11790
NH       6    .045     6250     .055     8000     .045     9550     .060    11410     .025
NH   11577    0.15    12410
K1   7.601      39    11410    11577        5        5        5
K3      10
BT      -4   11410    1803.9   1803.9   11440    1803.9   1802.3   11547    1803.8   1802.3
BT           11577    1803.8   1803.8
GR1804.0      200    1800.0      600    1798.0     1300    1796.5     1600    1796.5     3300
GR1799.5     4300    1799.9     6250    1799.5     6800    1796.0     8000    1796.0     8290
GR1797.0     8450    1797.0     8800    1800.0     9550    1800.0     9930    1804.0    10730
GR1806.0   11200    1804.5   11280    1803.9   11410    1793.8   11440    1802.3   11440
GR1802.3 11443.5    1793.8 11443.5    1793.8 11474.5    1802.3 11474.5    1802.3   11478
GR1793.8   11478    1793.8   11509    1802.3   11509    1802.3 11512.5    1793.8 11512.5
GR1793.8 11543.5    1802.3 11543.5    1802.3   11547    1793.8   11547    1803.8   11577
GR1803.8   11577    1804.8   11790    1805.7   11970    1808.0   12410
ET             6.1                               11280    11790
NH       6    .045     6250     .055     8000     .045     9550     .060    11410     .025
NH   11577    0.16    12410
K1   7.610      39    11410    11577       70       70       70
K3      10
BT      -4   11410    1803.9   1803.9   11440    1803.9   1802.3   11547    1803.8   1802.3
BT           11577    1803.8   1803.8
GR1804.0      200    1800.0      600    1798.0     1300    1796.5     1600    1796.5     3300
GR1799.5     4300    1799.9     6250    1799.5     6800    1796.0     8000    1796.0     8290
GR1797.0     8450    1797.0     8800    1800.0     9550    1800.0     9930    1804.0    10730
GR1806.0   11200    1804.5   11280    1803.9   11410    1793.9   11439    1802.3   11439
GR1802.3 11444.5    1793.9 11444.5    1793.9 11473.5    1802.3 11473.5    1802.3   11479
GR1793.9   11479    1793.9   11508    1802.3   11508    1802.3 11513.5    1793.9 11513.5
GR1793.9 11542.5    1802.3 11542.5    1802.3   11547    1793.8   11547    1803.8   11577
GR1803.8   11577    1804.8   11790    1805.7   11970    1808.0   12410
ET             6.1                               11280    11790
NH       6    .045     6250     .055     8000     .045     9550     .060    11410     .025
NH   11577    0.16    12410
K1   7.611      24    11410    11577        5        5        5
K3      10
GR1804.0      200    1800.0      600    1798.0     1300    1796.5     1600    1796.5     3300
GR1799.5     4300    1799.9     6250    1799.5     6800    1796.0     8000    1796.0     8290
GR1797.0     8450    1797.0     8800    1800.0     9550    1800.0     9930    1804.0    10730
GR1806.0   11200    1804.5   11280    1803.9   11410    1793.9   11441    1793.9   11547
GR1803.8   11577    1804.8   11790    1805.7   11970    1808.0   12410
NH       6    .040     5800     .070     7700     .040    10500     .120    11640     .025
NH   11930     .15    13620
K1    7.68      32    11640    11930      290      220      280
K3      10
GR1810.0      400    1800.0     1650    1799.0     2200    1799.0     3750    1800.0     4000
GR1802.0     4450    1801.0     5800    1801.0     6800    1801.0     7700    1800.0     8070
GR1800.0     8350    1797.5     8550    1797.5     8700    1800.0     9060    1799.0     9250
GR1799.0     9400    1800.0     9610    1804.0    10500    1804.4    11000    1808.3    11640
GR1808.0   11710    1796.0   11760    1794.5   11790    1794.5   11830    1796.0   11840
GR1808.0   11870    1809.5   11930    1806.5   12200    1806.8   12470    1808.0   12570
GR1808.0   13100    1812.0   13620
ET             6.1                               12418    12669
NC                              0.1       0.3
NH       5    .040     3400     .060    12470     .025    12766     .040    13400     .160
NH   14200
K1    7.97      34    12454    12563     1750     1340     1610
K3      10
K4       2  1313.0   11000   1813.0   11700
GR1816.0      500    1812.0     1000    1810.0     1800    1810.0     2400    1813.0     3400
GR1811.0     4600    1811.0     7500    1812.0     8500    1810.0     9450    1810.0    10000
GR1815.2    12000    1816.6    12227    1815.6    12313    1813.6    12367    1815.1    12418
GR1812.8    12442    1812.9    12454    1812.0    12470    1806.5    12503    1806.0    12515
GR1806.0    12526    1806.7    12540    1808.3    12561    1812.4    12563    1813.7    12597
GR1814.5    12669    1813.0    12701    1814.0    12736    1815.0    12756    1816.0    12766
GR1816.7    12794    1815.0    13250    1816.0    13400    1816.0    14200
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NH      5     .140     3800     .060     7800     .050     8941     .050     9014     .050
NH   9204    0.14    11140
X1   8.19       39     9941     9014     1110      930     1140
X3     10
GR1823.0      300   1817.0     1200   1316.0     2500   1820.0     3800   1818.0     4980
GR1819.0     5410   1816.0     7030   1820.0     7800   1820.0     8000   1820.0     8000
GR1819.2     8000   1819.6     9169   1819.4     8408   1820.1     8794   1820.5     8849
GR1821.5     8875   1820.3     8921   1822.6     8927   1823.9     8941   1812.5     8952
GR1810.6     8975   1810.6     8988   1313.2     9001   1814.1     9010   1823.9     9014
GR1820.9     9040   1823.5     9062   1826.7     9084   1826.3     9115   1820.8     9150
GR1819.5     9153   1921.5     9204   1822.0     9255   1823.0     9550   1823.0    10300
GR1823.0    10530   1824.0    10650   1824.0    10940   1824.5    11140
ST           1     6260
NH           5     .040      4430     .060     9006     .025     9094     .030     9400     0.14
NH   10560
X1   8.27       23     9006.    9094.      350      300      330
X3     10                                                 1825.0   1825.0
X4      3   1821.0     8000   1823.0     8650   1823.0     8850
GR1824.0      600   1820.0     1300   1819.0     2400   1820.0     3200   1824.0     4000
GR1822.0     4430   1819.5     5200   1821.0     5850   1819.5     6770   1819.5     7400
GR 1824.    9000.    1824.     9006.   1314.0     9018.   1813.7    9050.   1814.0    9082.
GR1822.2    9094.    1823.     9100.   1823.0     9290   1824.0     9400   1824.5     9500
GR1825.0    10050   1825.0    10450   1826.0    10560
ST           1     5380
NC                                .3       0.5
NH           5     .040      4430     .060     9006     .015     9095     .030     9400     0.14
NH   10560
X1  8.271       48     9017.    9095.        5        5        5
X3     10                                                 1825.0   1825.0
X4      3   1821.0     8000   1823.0     8650   1823.0     8850
BT     -4     9006   1824.0              9017   1824.1   1821.7     9025   1823.2   1821.7
BT           9095   1823.2   1821.7
GR1824.0      600   1820.0     1300   1319.0     2400   1820.0     3200   1824.0     4000
GR1822.0     4430   1819.5     5200   1821.0     5950   1819.5     6770   1819.5     7400
GR 1824.    9000.    1824.     9006.   1824.0     9017   1813.7   9017.0   1813.7     9025
GR1821.7    9028.3   1813.7    9028.3   1813.7   9034.3   1821.7   9034.3   1821.7   9037.6
GR1813.7    9037.6   1813.7    9043.6   1821.7   9043.6   1821.7   9047.2   1813.7   9047.2
GR1813.7    9057.2   1821.7    9057.2   1821.7     9060   1813.7     9060   1813.7     9070
GR1821.7     9070   1921.7      9073   1813.7     9073   1813.7     9083   1821.7     9083
GR1821.7    9086.6   1813.7    9086.6   1813.7   9095.0   1823.2     9095   1823.2     9095
GR1822.2    9096.    1823.     9100.    1823.0     9290   1824.0     9400   1824.5     9500
GR1825.0    10050   1825.0    10450    1826.0    10560
ST           6.1                                 8940     9140
NC   .055    0.14     .015      0.1      0.3
X1   8.31       48.    9040.    9116.     235.     235.     235.
X2
X3     10
X4      1   1824.0     8280
BT     -5     3940   1824.0              9040   1824.1   1822.0     9046   1823.2   1822.0
BT          9116.0   1824.1   1822.0     9120   1824.0
GR1826.5      800   1822.0     1200   1822.0     2400   1823.0     3200   1823.0     3200
GR1824.0     4000   1823.8     5950   1823.5     6050   1821.0     6770   1822.0     7800
GR 1826.    8900.    1826.     8940   1824.1     9040   1814.0   9040.0   1814.0     9046
GR1822.0     9046   1822.0    9051.3   1814.0   9051.3   1814.0   9055.3   1822.0   9055.3
GR1822.0    9060.6   1814.0    9060.6   1814.0   9064.6   1822.0   9064.6   1822.0   9070.2
GR1814.0    9070.2   1814.0    9078.2   1822.0   9078.2   1822.0   9083.0   1814.0     9083
GR1814.0     9091   1822.0      9091   1822.0     9096   1814.0     9096   1814.0     9104
GR1822.0     9104   1822.0    9109.6   1814.0   9109.6   1814.0   9116.0   1824.0     9116
GR1824.0    9120.    1826.     9140.    1824.     9148.   1823.6     9270   1823.6     9580
GR1824.0     9770   1826.0     10130   1826.0     11780
ST           1     5520
ST           6.1                                 8900     9270
NC   .055    0.14     .025      0.3      0.5
X1  9.311       23.    9014.    9140.       5.       5.       5.
X3     10
X4      1   1824.0     8280
GR1826.5      800   1822.0     1200   1822.0     2400   1823.0     3200   1823.0     3200
GR1824.0     4000   1823.8     5950   1823.5     6050   1821.0     6770   1822.0     7800
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GR 1826.    3990.    1826.    8940    1824.1    9014.    1814.5    9034.    1814.    9075.
GR1814.5    9120.    1824.    9140.    1924.    9148.    1823.6    9270    1823.6    9580
GR1824.0    9770    1826.0    10130    1926.0    11780
MC                      0.1              0.3
NH       7    .040    2020    .060    3700    0.16    5380    .040    7000    0.16
NH    7863    .025    9094    0.16    11250
X1    8.61      39.    7923.    8094.    1570.    1370.    1560.
X3      10
X4       3    1830.5    2900    1830.0    7400    1832.0    7700
GR1832.0       0    1830.0     250    1829.0    2020    1829.0    3700    1829.0    5380
GR1831.0    5970    1827.0    6250    1827.0    6730    1830.0    6880    1825.1    7000
GR1833.1    007741    1833.1    007741    1833.1    007741    1833.1    007741    1833.1    007741
GR1832.7    007754    1830.2    007793    1830.2    007836    1832.8    007863    1832.6    007923
GR1829.9    007952    1822.7    007970    1818.9    008025    1820.1    008039    1822.1    008062
GR1830.3    008077    1832.3    008094    1832.3    008135    1832.4    008173    1832.0    8180
GR1832.0    8710    1832.0    9180    1832.0    9230    1832.0    10070    1832.4    10360
GR1833.0    10500    1834.0    10750    1834.0    11100    1836.0    11250
NH       4    .040    1700    0.16    7007    .025    7188    0.16    11180
X1    8.85      49    7007.    7188.    1370.    1200.    1250.
X3      10                                                          1837.0
X4       1    1836.0    4180
GR1840.0       0    1837.0     250    1837.0    1700    1837.0    2550    1840.0    3730
GR1837.0    4900    1833.3    005000    1834.2    005102    1833.9    005248    1834.6    005315
GR1833.9    005362    1834.0    005458    1834.2    005626    1834.0    005773    1833.5    005856
GR1833.7    005977    1834.6    006004    1834.8    006111    1833.7    006220    1837.7    6395
GR1837.7    006554    1838.1    006637    1838.8    006858    1839.4    006879    1837.9    006900
GR1837.2    006953    1837.0    006981    1837.6    007007    1834.4    007013    1833.0    007025
GR1827.3    007031    1825.1    007044    1824.4    007064    1824.4    007099    1826.2    007119
GR1825.9    007122    1833.5    007134    1835.6    007142    1837.7    007163    1837.8    007188
GR1837.8    7250    1838.0    7420    1838.0    8170    1835.5    8550    1835.7    9570
GR1838.0    10080    1840.0    10450    1842.0    10870    1844    11180
BT       1    5450
MC                      0.3              0.5
NH       6    .040    4500    0.16    9100    .080    9910    .025    10070    0.16
NH   11770    0.12    13920
X1    8.90      35    9910.    10070.    170.    360.    230.
X3      10                                                  1837.8    1838.0
X4       2    1840.0    2900    1836.5    6980
GR1843.0       2650    1837.5    3050    1837.5    4500    1837.5    5350    1841.0    6530
GR1839.0       7700    1837.0    7800    1836.0    7880    1836.0    8140    1835.9    8550
GR1835.2       8850    1836.5    9100    1837.6    9340    1837.5    9870    1837.8    9890
GR1837.8       9910    1826.0    9950    1825.2    9955    1825.2    10020    1826.0    10025
GR1838.0    10070    1838.0    10270    1839.1    10430    1838.0    10800    1837.    11000.
GR1837.0    11770    1838.0    11940    1836.0    12530    1838.0    12810    1840.0    12870
GR1840.0    13200    1842.0    13250    1844.0    13580    1844.0    13900    1846.0    13920
NH       6    .040    4500    0.16    9100    .080    9910    .015    10070    0.16
NH   11770    0.12    13920
X1  8.901      50    9950.    10019.      5.      5.      5.
X3      10                                                  1837.8    1838.0
X4       3    1840.0    2900    1836.5    6980    1838.0    10070
BT      -7    9890    1837.8              9910    1838.1              9950    1838.5    1832.4
BT            9938    1838.7    1832.4    10019    1838.5    1832.4    10070    1838.2
BT           10270    1838.0
GR1843.0       2650    1837.5    3050    1837.5    4500    1837.5    5350    1841.0    6530
GR1839.0       7700    1837.0    7800    1836.0    7880    1836.0    8140    1835.9    8550
GR1835.2       8850    1836.5    9100    1837.6    9340    1837.5    9870    1837.8    9890
GR1837.8       9910    1837.8    9950    1825.2    9950    1825.2    9959    1832.4    9959
GR1832.4       9964    1825.2    9964    1825.2    9974    1832.4    9974    1832.4    9979
GR1825.2       9979    1825.2    9989    1832.4    9989    1832.4    9994    1825.2    9994
GR1825.2    10004    1832.4    10004    1832.4    10009    1825.2    10009    1825.2    10019
GR1838.0    10019    1838.0    10279    1839.1    10430    1838.0    10800    1837.    11000.
GR1837.0    11770    1838.0    11940    1838.0    12530    1838.0    12810    1840.0    12870
GR1840.0    13200    1842.0    13250    1844.0    13580    1844.0    13900    1846.0    13920
BT            6.1                                 9890    10430
NH       5    .040    4500    0.16    9100    .080    9910    .015    10070    0.16
NH   11770    0.12    13920
X1    8.91      50    9950.    10018.      70.      70.      70.
X2
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X3      10                                                  1838.1   1838.1
X4          3  1840.0      2800   1836.5      6980   1838.0     10070
BT         -7     9890   1837.8                9910   1838.1                9850   1838.5   1832.8
BT             9988   1838.7   1832.8     10018   1838.5   1832.8     10070   1839.2
BT            10270   1838.0
GR1843.0       2650   1837.5      3050   1837.5      4500   1837.5      5350   1841.0      6530
GR1839.0       7700   1837.0      7800   1836.0      7880   1836.0      8140   1835.9      8550
GR1835.2       8850   1836.5      9100   1837.6      9340   1837.5      9870   1837.8      9890
GR1837.8       9910   1837.8      9950   1825.6      9950   1825.6      9958   1832.8      9958
GR1832.8       9965   1825.6      9965   1825.6      9973   1832.8      9973   1832.8      9980
GR1825.6       9980   1825.6      9988   1832.8      9988   1832.8      9995   1825.6      9995
GR1825.6      10003   1832.8     10003   1832.8     10010   1825.6     10010   1825.6     10018
GR1838.0      10018   1838.0     10270   1839.1     10430   1838.0     10800   1837.      11000.
GR1837.0      11770   1838.0     11940   1838.0     12530   1838.0     12810   1840.0     12870
GR1840.0      13200   1842.0     13250   1844.0     13580   1844.0     13900   1846.0     13920
DT             1     5520
ET                     6.1                                  9910     10900
NC                                   0.3       0.5
NH          5          .040       4500        0.16       9100        .080       9910        .025      10070        0.16
NH  11770              0.12      13920
X1  8.911                 35      9945.     10025.          5.          5.          5.
X3      10                                                  1838.1   1838.1
X4          2  1840.0      2800   1836.5      5980
GR1843.0       2650   1837.5      3050   1837.5      4500   1837.5      5350   1841.0      6530
GR1839.0       7700   1837.0      7800   1836.0      7880   1836.0      8140   1835.9      8550
GR1835.2       8850   1836.5      9100   1837.6      9340   1837.5      9870   1837.8      9890
GR1837.8       9910   1828.0      9945   1825.6      9960   1825.6     10015   1828.0     10025
GR1838.0      10070   1838.0     10270   1839.1     10430   1838.0     10800   1837.      11000.
GR1837.0      11770   1838.0     11940   1838.0     12530   1838.0     12810   1840.0     12870
GR1840.0      13200   1842.0     13250   1844.0     13580   1844.0     13900   1846.0     13920
DT             1     6400
ET                     6.1                                  7186      7361
NH          5          .040       2000        0.16       7219        .025       7349        0.16       8360         .11
NH  10960
X1  9.06                  32.     7219.     7349.        650.        830.        820.
GR1845.0       500   1840.0      1400   1840.0      2000   1841.0      2800   1844.0      4450
GR1841.0      4800   1842.5      4950   1840.9      5000   1840.0      5350   1840.0      7110
GR1842.3   007186   1840.5   007219   1840.7   007238   1833.3   007255   1828.1   007301
GR1832.1   007328   1841.1   007349   1841.9   007361   1840.3   007375   1840.7   007406
GR1840.3   007451   1840.0      7670   1840.0      8360   1841.0      8750   1841.2      9140
GR1842.0      9180   1842.5      9450   1843.1      9900   1844.0     10100   1846.0     10510
GR1846.0     10700   1846.5     10960
NC                                   0.1       0.3
NH          9          .040       4000        0.16       4850        .035       5750        0.13       6630         .030
NH   7212              .026       7447        .036       7909        .050       8709        0.16      11320
ET                     6.1                                  6990      7900
X1  9.30                  39      7212      7447        1040        1070        1250
X3      10                                                  7900   1846.0
X4          1  1850.0      1150
GR1852.0       1000   1845.0      1880   1844.0      3080   1845.0      4000   1846.0      4700
GR1848.0       4850   1846.8      4950   1846.0      5000   1846.0      5300   1845.7      5430
GR1846.2       5750   1843.5      6150   1847.0      6990   1847.0      7152   1847.1      7212
GR1837.8   007232   1835.2   007252   1834.4   007263   1837.8   007291   1842.1   007307
GR1841.4      7327   1840.4      7346   1840.9      7376   1841.2      7390   1840.2      7407
GR1843.8      7422   1844.7      7447   1843.4      7468   1845.5      7840   1846.0      7900
GR1845.5      7930   1845.5      8700   1845.5      9520   1846.0      9760   1848.0     10000
GR1850.0     10400   1850.0     11080   1851.3     11150   1852.0     11320
ET                     6.1                                 14400     16400
NC                                   0.3       0.5
NH          6.          .030      12650        .040      14000        .060      14700        .037      15370         .025
NH  15496               .037      16120        .055      17650        .080      18900
X1  9.41                  43      15370.    15496.        340.        330.        570.
X3      10                                                  1849.8   1850.1
X4          3  1850.0      9700   1850.0     11800   1848.5     13410
GR1853.0       9200   1849.0     12200   1849.0     12650   1849.9     12760   1849.0     12960
GR1848.5      14000   1848.0     14150   1847.9     14250   1847.9     14700   1849.5     14900
GR1847.9   015000   1847.9   015065   1847.9   015118   1847.8   015134   1847.9   015242
GR1847.9   015264   1847.9   015306   1848.0   015352   1847.9   015370   1840.5   015389
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GR1840.5   015417   1845.5   015461   1845.4   015480   1846.5   015496   1847.4   015535
GR1847.5   015559   1847.2   015579   1847.4   015601   1847.5   015631   1848.9   015676
GR1846.1   015735   1848.3   015762   1846.1   015790   1847.2   015815   1848.2   015950
GR1849.5    16120   1849.3    16200   1849.0    16600   1849.0    17400   1850.0    17650
GR1850.0    18900   1852.0    19280   1854.0    18900
ET              6.1                               14400    16400
NH      8.    .030    12650     .040    14000     .060    14700     .037    15370     .015
NH  15496     .037    16120     .055    17650     .080    18900
X1  9.411       58   15391.   15459.       5.       5.        5
X3     10                                                1849.8   1850.1
X4      3   1850.0     9800   1850.0    11800   1850.5    12700   1849.9    13410
BT    -11    15000   1849.9   1847.9   15065   1849.9   1847.9    15134   1850.7   1847.9
BT           15264   1851.3   1847.9   15391   1851.4   1847.8    15459   1851.4   1847.8
BT           15559   1851.0   1847.5   15676   1851.0   1848.9    15735   1851.0   1846.1
BT           15762   1851.0   1848.3   15950   1851.1   1848.2
GR1860.0     8700   1850.0    12200   1850.0    12650   1849.9    12760   1849.9    12960
GR1848.5    14000   1848.9    14150   1849.9    14250   1849.9    14700   1849.9    14900
GR1847.9   015000   1847.9   015065   1847.9   015118   1847.8   015184   1847.9   015242
GR1847.9   015264   1847.9   015306   1848.0   015352   1847.9   015370   1847.8   015391
GR1840.5    15391   1840.5    15401   1847.3    15401   1847.8    15404   1840.5    15404
GR1840.5    15415   1847.8    15415   1847.8    15418   1840.5    15418   1840.5    15429
GR1847.8    15429   1847.8    15434   1840.5    15434   1840.5    15445   1847.8    15445
GR1847.3    15448   1840.5    15448   1840.5    15459   1847.8    15459   1847.4    15535
GR1847.5   015559   1847.2   015579   1847.4   015601   1847.5   015631   1848.9   015676
GR1846.1   015735   1848.3   015762   1846.1   015790   1847.2   015815   1848.2   015950
GR1849.5    16120   1850.1    16200   1850.1    16600   1850.1    17400   1850.1    17650
GR1850.0    18900   1852.0    18280   1854.0    18900
ET              6.1                               14100    15900
NH      5.    .090    12350     .035    14500.    .060    15000.     .015   15120.    .040
NH18630.
X1  9.43        48   15020.   15087.     110.     110.     110.
X3     10                                                1849.0   1850.1
X4      7   1850.0     9400   1850.0    11150   1849.9    13820   1849.8    14500   1849.9
X4  14680   1850.7    14750   1851.3    14880
BT    -10    15000   1851.4   1850.3   15000   1851.4   1850.0    15020   1851.4   1849.1
BT           15037   1850.1   1849.1   15120   1851.0   1851.0    15400   1851.8   1851.0
BT           15500   1851.2   1850.9   15600   1851.0   1850.0    15750   1850.2   1850.0
BT           16120   1850.0   1850.0
GR1860.0     8300   1850.0    11750   1850.0    12250   1850.0    12250   1850.0    12250
GR1850.0    12350   1850.0    12350   1850.0    12970   1850.0    13000   1849.2    13300
GR1851.4   15000.   1851.4   15000.   1851.4   15000.   1849.2    15020   1841.8    15020
GR1841.8    15029   1849.1    15029   1849.1    15034   1841.8    15034   1841.8    15043
GR1849.1    15043   1849.1    15048   1841.8    15048   1841.8    15057   1849.1    15057
GR1849.1    15064   1841.8    15064   1841.3    15073   1849.1    15073   1849.1    15078
GR1841.8    15078   1841.8    15087   1849.2    15087   1849.2    15087   1850.0    15100
GR 1850.   15100.    1851.   15120.   1851.0    15400   1850.0    15500   1850.0    15600
GR1850.2    15750   1850.1    16120   1850.1    16200   1850.1    17200   1850.8    17450
GR1851.0    17700   1852.2    17950   1852.7    18250   1854.1    18370   1855.2    18630
ET              6.1                               14100    15900
NC                                0.3      0.5
NH      5.    .090    12350     .035    14500.    .060    15000.     .025   15100.    .040
NH18630.
X1  9.431       31   15000.   15100.       5.       5.       5.
X3     10                                                1849.8   1850.1
GR1860.0     8300   1850.0    9400    1850.0    9400    1850.0    9400    1850.0    9400
GR1850.0    11500   1849.0   11750   1849.0   12250   1849.0   12250   1849.0   12250
GR1850.0    12350   1850.0   12350   1850.0   12350   1849.5   12450   1849.5   13700
GR1849.5   14000.   1850.0   14400.    1850.   15000.   1841.3   15040.   1841.8   15070.
GR 1850.   15100.    1851.   15120.   1851.0   15400   1850.0    15500   1850.0    16120
GR1849.5    16200   1849.5    17200   1850.0    17450   1852.0    18150   1854.0    18500
GR1854.2    18630
ET              6.1                                7280     8300
NH      6     .080     5000     .060    5675.     .035    7300.     .060    7655.    .027
NH 7845.      .060    11250
X1  9.47        87     7655     7845      185      185      185
X3     10
X4      1   1842.3     7728
GR1852.0     4200   1851.0    4459    1850.0    4900    1850.0    4900    1850.0    4900
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GR1851.6   005000   1851.4   005059   1850.7   005063   1850.9   005115   1850.4   005147
GR1850.9   005132   1851.0   005217   1850.4   005256   1850.8   005304   1849.7   005380
GR1850.1   005446   1850.4   005631   1850.4   005694   1850.1   005790   1849.9   005861
GR1849.9   005900   1849.6   005925   1849.3   005941   1849.7   005988   1849.9   006040
GR1849.9   006087   1849.2   006171   1849.2   006214   1848.9   006298   1849.2   006340
GR1849.5   006412   1849.5   006461   1849.6   006511   1849.2   006568   1848.4   006675
GR1850.3   006715   1849.7   006735   1850.4   006804   1850.4   006862   1849.6   006928
GR1849.9   006991   1849.9   007041   1849.9   007097   1850.4   007142   1851.2   007181
GR1850.7   007250   1850.1   007276   1850.3   007300   1850.7   007318   1851.2   007345
GR1851.0   007337   1851.4   007425   1851.4   007484   1851.8   007524   1850.5   007556
GR1850.7   007591   1851.2   007622   1852.0   007655   1851.3   007680   1844.5   007702
GR1842.3   007758   1844.6   007777   1843.8   007783   1850.4   007813   1850.7   007845
GR1850.4   007893   1850.3   007955   1850.4   007996   1850.3   008065   1850.1   008129
GR1849.3   008190   1850.1   008239   1849.7   008253   1849.2   008324   1850.0   008364
GR1851.4   008384   1849.7   008418   1849.9   008453   1849.9   008512   1850.8   008521
GR1848.3     9000   1848.3     9500   1849.2    10200   1850.0    10350   1852.0    10700
GR1854.0    11030   1856.0    11250
EJ
T1       CORFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGF
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - 500-YEAR
J1                 5                                                1785.3
J2     15              -1                                                      15


ER
EOF..
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1**************************************************
 *  WATER SURFACE PROFILES                        *
 *  VERSION OF NOVEMBER 1976                      *
 *  UPDATED AUGUST 1983                           *
 *                                                *
 *  RUN DATE   5-MAY-88 TIME   16:16:16           *
 **************************************************
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 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  THE HYDROLOGIC ENGINEERING CENTER  *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616            *
 *  (916) 440-2105 (FTS) 448-2105      *
 ***************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

C
T1      CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3      LVW LEFT OVERBANK BREAKOUT - LM TO LVB          50-YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
        0.       3.        0.        0.  0.000000      0.00      0.0       0.  1788.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      4.000     0.000  2870.000 23540.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     8.100     8.100     8.100     8.100  6200.000 11320.000  6200.000 11437.000     0.000
NC      0.070     0.070     0.070     0.100     0.300     0.000     0.000     0.000     0.000     0.000
          Model of Q50 and Q100 breakouts in left overbank between Lamb Blvd
          and Lake Mead Blvd.  Use truncated xsecs from full HEC-2 model.
          Add 10.0 to xsec numbers from full model.
          Start at x-6.92 with full Q100 flow, and floodplain in LOB
          encroached to reasonable expansion limits.  Q50 overbank flow does
          not return to channel here; keep separate.  Use ET cards for
          x-6.92 to x-17.97 to set approx 1:1 expansion limits.
          Flows come from R4_MID_SF.out; split flow run for main channel.
X1      6.920    36.000 11321.000 11410.000   580.000   840.000   830.000     0.000     0.000     0.000
X4      1.000  1790.000   900.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1793.000   680.000  1798.000  1000.000  1788.000  2000.000  1787.000  3500.000  1788.000  4850.000
GR   1785.000  6450.000  1785.000  9200.000  1784.000  9550.000  1784.000 10200.000  1784.000 10200.000
GR   1787.300 11000.000  1787.700 11145.000  1786.500 11169.000  1786.600 11200.000  1787.000 11285.000
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GR	1791.300	11321.000	1781.800	11334.000	1777.700	11357.000	1777.700	11366.000	1779.000	11378.000
GR	1781.300	11406.000	1790.900	11410.000	1786.900	11426.000	1790.000	11437.000	1789.900	11504.000
GR	1788.300	11551.000	1788.100	11559.000	1788.100	11578.000	1788.100	11605.000	1788.100	11612.000
GR	1788.500	11622.000	1796.000	12100.000	1786.000	12300.000	1788.000	13600.000	1788.000	16450.000
GR	1792.300	17230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.300	0.000	2970.000	11930.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	8.100	8.100	0.000	0.000	0.000	6200.000	0.000	0.000
X1	17.140	14.000	7100.000	7200.000	580.000	580.000	580.000	0.000	0.000	0.000
GR	1800.300	450.000	1751.000	1050.000	1790.000	1500.000	1789.500	2300.000	1788.000	3700.000
GR	1789.300	4600.000	1789.000	6200.000	1788.000	7100.000	1788.000	7200.000	1788.000	10450.000
GR	1792.500	11200.000	1791.000	12000.000	1791.000	12114.000	1791.000	12150.000	0.000	0.000

ET	0.300	0.000	8.100	8.100	0.000	0.000	0.000	6850.000	0.000	0.000
X1	17.340	16.000	9600.000	8700.000	600.000	600.000	600.000	0.000	0.000	0.000
X4	2.300	1792.000	7300.000	1792.000	9600.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	150.000	1795.000	900.000	1792.000	3500.000	1792.000	5000.000	1792.200	6850.000
GR	1791.000	8600.000	1791.000	8700.000	1791.000	9600.000	1792.000	10000.000	1796.000	10580.000
GR	1796.300	12000.000	1796.300	12048.000	1795.800	12125.000	1796.600	12229.000	1795.700	12268.000
GR	1798.300	12321.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	0.000	8.100	8.100	0.000	0.000	0.000	6800.000	0.000	0.000
X1	17.500	13.000	9000.000	8290.000	1200.000	1200.000	1200.000	0.000	0.000	0.000
GR	1799.500	4300.000	1799.000	6250.000	1800.000	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.300	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	0.000	0.000	0.000	0.000
ET	0.300	0.000	8.100	8.100	0.000	0.000	0.000	7300.000	0.000	0.000
X1	17.680	15.000	9550.000	8700.000	370.000	370.000	370.000	0.000	0.000	0.000
GR	1802.300	4450.000	1801.000	5800.000	1801.500	7300.000	1801.000	7700.000	1800.000	8070.000
GR	1800.300	8350.000	1797.500	8550.000	1797.500	9700.000	1800.000	9060.000	1799.000	9250.000
GR	1799.300	9400.000	1800.000	9610.000	1804.000	10500.000	1804.400	11000.000	1808.300	11640.000
QT	4.300	0.000	2940.000	11470.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	8.100	8.100	0.000	0.000	0.000	8500.000	0.000	0.000
X1	17.970	12.000	9450.000	9500.000	1750.000	1750.000	1750.000	0.000	0.000	0.000
X4	1.000	1810.000	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1812.300	4600.000	1812.000	7500.000	1812.000	9500.000	1810.000	9450.000	1810.000	9500.000
GR	1815.200	12000.000	1816.600	12227.000	1815.600	12313.300	1813.600	12367.000	1815.100	12418.000
GR	1812.300	12442.000	1812.900	12454.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.190	14.000	7030.000	7100.000	1110.000	1110.000	1110.000	0.000	0.000	0.000
X4	3.300	1818.000	4920.000	1819.000	5310.000	1820.000	7800.000	0.000	0.000	0.000
GR	1820.000	3900.000	1816.000	7030.000	1816.000	7100.000	1820.000	8000.000	1820.000	8000.000
GR	1819.200	8000.000	1819.600	8169.000	1819.400	8408.000	1820.100	8794.000	1820.500	8849.000
GR	1821.500	8875.000	1820.300	8921.000	1822.600	8927.000	1823.900	8941.000	0.000	0.000
QT	4.000	0.000	2570.000	9720.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.270	8.000	6770.000	6800.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	1822.300	4430.000	1822.000	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	6800.000
GR	1819.500	7400.000	1824.000	9000.000	1824.000	9006.000	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.310	9.000	6770.000	6800.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	1824.300	4000.000	1823.800	5950.000	1823.500	6050.000	1821.000	6770.000	1821.000	6800.000
GR	1822.300	7800.000	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	0.000	0.000
NC	0.040	0.160	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.300	0.000	2280.000	6410.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.510	5.000	2020.000	3700.000	1500.000	1400.000	1450.000	0.000	0.000	0.000
X4	1.000	1830.500	2900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1832.300	0.000	1930.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.300	5970.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	18.350	6.000	1700.000	2550.000	1500.000	1500.000	1500.000	0.000	0.000	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	0.000	2280.000	4850.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.910	6.000	3050.000	4500.000	260.000	200.000	250.000	0.000	0.000	0.000
X4	2.000	1640.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19.060	7.000	1400.000	2000.000	520.000	520.000	520.000	0.000	0.000	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2000.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.300	6.000	1880.000	3080.000	700.000	850.000	800.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	1000.000	1845.000	1880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1848.000	4950.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	0.080	2650.000	0.040	4000.000	0.060	4900.000	0.000	0.000	0.000
X1	9.410	10.000	4250.000	4700.000	600.000	600.000	600.000	0.000	0.000	0.000
X4	3.000	1850.000	-300.000	1850.000	1800.000	1848.500	3410.000	0.000	0.000	0.000
GR	1853.000	-800.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
QT	4.000	0.000	13000.000	24000.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	2700.000	6120.000	0.000	0.000	0.000
NH	3.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.015
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	8900.000	0.000	0.000	0.000
X1	9.411	58.000	5391.000	5459.000	5.000	5.000	5.000	0.000	0.000	0.000
X4	2.000	1850.500	2700.000	1848.500	3410.000	0.000	0.000	0.000	0.000	0.000
BT	-19.000	2760.000	1849.900	1849.900	3410.000	1849.000	1848.500	4000.000	1848.900	1848.500
BT	0.000	4250.000	1849.900	1847.900	5065.000	1849.900	1847.900	5184.000	1850.700	1847.900
BT	0.000	5264.000	1851.300	1847.900	5391.000	1851.400	1847.800	5459.000	1851.400	1847.800
BT	0.000	5559.000	1951.000	1847.500	5676.000	1851.000	1848.900	5735.000	1851.000	1846.100
BT	0.000	5762.000	1851.000	1848.300	5950.000	1851.100	1848.200	6200.000	1850.100	1848.300
BT	0.000	6600.000	1850.100	1849.000	7400.000	1850.100	1849.000	7650.000	1850.100	1850.000
BT	0.000	8000.000	1850.000	1850.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1850.000	1800.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000
GR	1847.900	5264.000	1847.900	5306.000	1848.000	5352.000	1847.900	5370.000	1847.800	5391.000
GR	1840.500	5391.000	1840.500	5401.000	1847.800	5401.000	1847.800	5404.000	1840.500	5404.000
GR	1840.500	5415.000	1847.800	5415.000	1847.800	5418.000	1840.500	5418.000	1840.500	5429.000
GR	1847.800	5429.000	1847.800	5434.000	1840.500	5434.000	1840.500	5445.000	1847.800	5445.000
GR	1847.800	5448.000	1840.500	5448.000	1840.500	5459.000	1847.800	5459.000	1847.400	5535.000
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1850.000	7650.000
GR	1850.000	8000.000	1852.000	8280.000	1854.000	8900.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*PROF 1

CCHV= 0.10 CEHV= 0.30
*SECNO 6.920

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 6200.0 11437.0 TYPE= 1 TARGET= 5237.000
Model of Q50 and Q100 breakouts in left overbank between Lamb Blvd
and Lake Mead Blvd. Use truncated xsecs from full HEC-2 model.
Add 10.0 to xsec numbers from full model.
Start at x-6.92 with full Q100 flow, and floodplain in LOB
encroached to reasonable expansion limits. Q50 overbank flow does
not return to channel here; keep separate. Use ET cards for
x-6.92 to x-17.97 to set approx 1:1 expansion limits.
Flows come from R4_MID_SF.out; split flow run for main channel.

6.92	10.30	1789.00	0.00	0.00	1788.00	0.00	0.00	0.00	1791.00
2870.	2661.	209.	0.	14896.	659.	5.	0.	0.	1790.90
0.00	0.18	0.32	0.05	0.070	0.070	0.070	0.000	1777.70	6200.00
0.000016	580.	830.	840.	0	0	0	0.00	5188.89	11429.90

*SECNO 17.140

3235 SLOPE TOO STEEP,EXCEEDS 0.10

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 6200.0 12150.0 TYPE= 1 TARGET= -6200.000

17.14	0.28	1788.28	1788.28	0.00	1788.41	0.14	0.04	0.04	1788.00
2870.	66.	83.	2721.	35.	28.	914.	110.	59.	1788.00
0.05	1.88	2.99	2.98	0.070	0.070	0.070	0.000	1788.00	6848.74
0.108388	580.	580.	580.	20	26	0	0.00	3647.79	10496.53

*SECNO 17.340

3470 ENCROACHMENT STATIONS= 6850.0 12321.0 TYPE= 1 TARGET= -6850.000

17.34	1.38	1792.38	0.00	0.00	1792.40	0.02	3.97	0.01	1791.00
2870.	1095.	169.	1606.	1275.	138.	1416.	136.	106.	1791.00
0.22	0.86	1.22	1.13	0.070	0.070	0.070	0.000	1791.00	6850.00
0.002152	600.	600.	600.	10	0	0	0.00	3243.95	10093.95

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 17.600

3470 ENCROACHMENT STATIONS= 6800.0 11410.0 TYPE= 1 TARGET= -6800.000

17.60	1.53	1797.53	0.10	0.00	1797.64	0.11	5.22	0.03	1796.00
2870.	710.	1425.	735.	351.	444.	385.	192.	170.	1796.00
0.34	2.02	3.21	1.91	0.070	0.070	0.070	0.000	1796.00	7541.03
0.012979	1200.	1200.	1200.	8	0	0	0.00	1391.45	8932.48

*SECNO 17.680

3470 ENCROACHMENT STATIONS= 7300.0 11640.0 TYPE= 1 TARGET= -7300.000

17.68	2.62	1800.12	0.00	0.00	1800.18	0.06	2.54	0.00	1797.50
2870.	483.	1035.	1352.	314.	394.	917.	203.	183.	1797.50
0.40	1.54	2.63	1.47	0.070	0.070	0.070	0.000	1797.50	8023.30
0.004228	370.	370.	370.	3	0	0	0.00	1614.79	9638.08

*SECNO 17.970

3470 ENCROACHMENT STATIONS= 8501.0 12454.0 TYPE= 1 TARGET= -8500.000

17.97	1.64	1811.64	0.00	0.00	1811.71	0.07	11.53	0.00	1810.00
2840.	1281.	262.	1297.	637.	82.	641.	263.	248.	1810.00
0.63	2.01	3.19	2.01	0.070	0.070	0.070	0.000	1810.00	8672.15
0.011730	1750.	1750.	1750.	6	0	0	0.00	1615.15	10287.30

*SECNO 18.190

3265 DIVIDED FLOW

18.19	2.39	1818.39	0.00	0.00	1818.43	0.04	6.71	0.00	1816.00
2840.	1731.	395.	724.	1271.	167.	500.	306.	294.	1816.00
0.83	1.36	2.30	1.45	0.070	0.070	0.070	0.000	1816.00	4701.93
0.003680	1110.	1110.	1110.	5	0	0	0.00	2024.47	7518.15

*SECNO 18.270

18.27	1.04	1820.54	0.00	0.00	1820.62	0.08	2.16	0.01	1819.50
2570.	547.	81.	1942.	335.	31.	822.	318.	309.	1819.50
0.88	1.63	2.59	2.35	0.070	0.070	0.070	0.000	1819.50	6128.52
0.014007	350.	350.	350.	3	0	0	0.00	1643.36	7771.88

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROP	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 18.310

18.31	1.73	1822.73	0.00	0.00	1822.74	0.03	2.11	0.00	1821.00
2570.	523.	102.	1945.	417.	51.	1271.	326.	319.	1821.00
0.92	1.25	1.99	1.53	0.080	0.080	0.080	0.000	1821.00	6279.75
0.005650	250.	250.	250.	3	0	0	0.00	1713.38	7993.12

*SECNO 18.610

3265 DIVIDED FLOW

18.61	0.90	1829.90	0.00	0.00	1829.92	0.02	7.18	0.00	1829.00
2280.	1039.	329.	912.	719.	455.	1634.	401.	422.	1829.00
1.33	1.45	0.72	0.56	0.040	0.080	0.160	0.000	1829.00	424.80
0.004385	1500.	1450.	1400.	7	0	0	0.00	4550.47	5645.87

*SECNO 18.850

3265 DIVIDED FLOW

3280 CROSS SECTION 18.85 EXTENDED 0.50 FEET

18.85	1.50	1837.50	0.00	0.00	1837.53	0.03	7.61	0.00	1837.00
2280.	1302.	378.	599.	730.	422.	892.	485.	559.	1837.00
1.64	1.78	0.90	0.57	0.040	0.080	0.160	0.000	1836.00	208.64
0.005930	1500.	1500.	1500.	6	0	0	0.00	3424.93	4900.00

*SECNO 18.910

3265 DIVIDED FLOW

18.91	1.37	1838.47	0.00	0.00	1838.48	0.01	0.95	0.00	1837.50
2280.	59.	1389.	832.	47.	1413.	1745.	498.	578.	1837.50
1.72	1.24	0.98	0.49	0.040	0.080	0.160	0.000	1836.50	2952.54
0.002899	260.	250.	200.	3	0	0	0.00	3492.19	7548.69

*SECNO 18.962

*SECNO 19.360

3265 DIVIDED FLOW

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
19.06	1.15	1841.15	0.33	0.00	1841.22	0.07	2.72	0.02	1840.00
2280.	336.	1545.	399.	119.	689.	527.	525.	609.	1840.00
1.79	2.82	2.24	0.75	0.040	0.080	0.160	0.000	1840.00	1153.17
0.012100	520.	520.	520.	2	0	0	0.00	1711.16	4804.97

*SECNO 9.300

9.30	1.65	1845.65	0.33	0.00	1845.67	0.02	4.44	0.01	1845.00
2280.	31.	1598.	650.	32.	1389.	1217.	563.	650.	1844.00
2.02	0.99	1.15	0.53	0.040	0.080	0.160	0.000	1844.00	1783.97
0.003156	700.	800.	850.	5	0	0	0.00	2676.43	4460.40

1490 NH CARD USED
*SECNO 9.410
3280 CROSS SECTION 9.41 EXTENDED 0.36 FEET

9.41	0.96	1848.86	0.33	0.00	1848.94	0.08	3.25	0.02	1847.90
2280.	903.	1112.	265.	455.	433.	132.	588.	681.	1847.90
2.09	1.99	2.57	2.33	0.049	0.060	0.060	0.000	1847.90	3084.58
0.011346	600.	600.	600.	4	0	0	0.00	1815.42	4500.00

1490 NH CARD USED
*SECNO 9.411

3370 NORMAL BRIDGE,NRD= 19 MIN ELTRD= 1848.90 MAX ELLC= 1850.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 2700.0 6120.0 TYPE= 1 TARGET= 3420.000

9.41	10.54	1851.04	1851.04	0.00	1851.54	0.50	0.02	0.13	1647.80
13000.	8849.	3873.	273.	3918.	394.	268.	588.	681.	1847.80
2.09	2.26	9.83	1.04	0.042	0.015	0.037	0.000	1840.50	2700.00
0.003484	5.	5.	5.	20	6	0	-5235.11	3420.00	6120.00

1

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC. -- EGP
T3 LVW LEFT OVERBANK BREAKOUT - LM TO LVB 100-YEAR

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ

	3.	4.	0.	0.	0.00000M	0.00	0.0	0.	1791.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 6.920

3470 ENCROACHMENT STATIONS= 6201.0 11437.0 TYPE= 1 TARGET= 5237.000
Model of Q50 and Q100 breakouts in left overbank between Lamb Blvd and Lake Mead Blvd. Use truncated xsecs from full FEC-2 model. Add 10.0 to xsec numbers from full model. Start at x-6.92 with full Q100 flow, and floodplain in LOB encroached to reasonable expansion limits. Q50 overbank flow does not return to channel here; keep separate. Use ET cards for x-6.92 to x-17.97 to set approx 1:1 expansion limits. Flows come from R4_MID_SF.out; split flow run for main channel.

6.92	13.30	1791.00	0.00	1788.00	1791.01	0.01	0.00	0.00	1791.00
23540.	22597.	919.	23.	30223.	918.	62.	0.	0.	1790.90
0.09	0.75	1.00	0.38	0.070	0.070	0.070	0.000	1777.70	6200.00
0.000114	580.	830.	840.	0	0	0	0.00	5237.00	11437.00

*SECNO 17.140

3265 DIVIDED FLOW

3280 CROSS SECTION 17.14 EXTENDED 0.09 FEET

3470 ENCROACHMENT STATIONS= 6200.0 12150.0 TYPE= 1 TARGET= -6200.000

17.14	3.09	1791.09	0.00	1788.28	1791.10	0.01	0.09	0.00	1788.00
11930.	1910.	285.	9735.	2333.	309.	10860.	298.	68.	1788.00
0.18	0.82	0.92	0.90	0.070	0.070	0.070	0.000	1788.00	6200.00
0.000419	580.	580.	580.	2	0	0	0.00	4964.17	12150.00

*SECNO 17.340
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 6850.0 12321.0 TYPE= 1 TARGET= -6850.000

17.34	1.28	1792.28	1792.28	1792.38	1792.66	0.38	0.85	0.11	1791.00
11930.	4316.	737.	6877.	1091.	128.	1271.	408.	124.	1791.00
0.22	3.95	5.77	5.41	0.070	0.070	0.070	0.000	1791.00	6850.00
0.053280	600.	600.	600.	20	18	0	0.00	3218.10	10068.10

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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 *SECNO 17.600

 3470 ENCROACHMENT STATIONS=     6801.0     11410.0   TYPE=      1   TARGET=    -6800.000
     17.60       4.32   1800.02      0.00   1797.53   1800.08      0.06       7.39       0.03   1796.00
     11930.      3906.      2965.      5053.      2431.      1168.      2778.      530.       212.       1796.00
       0.39       1.61       2.54       1.32      0.070      0.070      0.070      0.000   1796.00   6800.00
  0.002235       1200.      1200.      1200.          8          0          0       0.00   3135.18   9935.18

 *SECNO 17.690

 3470 ENCROACHMENT STATIONS=     7303.0     11640.0   TYPE=      1   TARGET=    -7300.000
     17.68       3.82   1801.32      0.00   1800.12   1801.47      0.16       1.36       0.03   1797.50
     11930.      3016.      2510.      6404.      1223.       572.      2150.      574.       236.       1797.50
       0.42       2.47       4.39       2.92      0.070      0.070      0.070      0.000   1797.50   7447.66
  0.007161        370.       370.       370.          4          0          0       0.00   2455.03   9902.68

 *SECNO 17.970

 3265 DIVIDED FLOW

 3280 CROSS SECTION      17.97 EXTENDED       0.22 FEET

 3470 ENCROACHMENT STATIONS=     8503.0     12454.0   TYPE=      1   TARGET=    -8500.000
     17.97       3.12   1813.12      0.00   1811.64   1813.23      0.11      11.75       0.01   1810.00
     11470.      5599.       561.      5303.      2016.       156.      2346.      745.       335.       1810.00
       0.61       2.78       3.60       2.25      0.070      0.070      0.070      0.000   1810.00   8500.00
  0.006290       1750.      1750.      1750.          6          0          0       0.00   2516.19  12454.00

 *SECNO 18.190

 3265 DIVIDED FLOW

     18.19       3.51   1819.51      0.00   1818.39   1819.59      0.08       6.36       0.00   1816.00
     11470.      8183.       871.      2415.      3982.       246.      1107.      870.       418.       1816.00
       0.75       2.05       3.55       2.18      0.070      0.070      0.070      0.000   1816.00   4075.76
  0.005238       1110.      1110.      1110.          4          0          0       0.00   3955.88   8467.31
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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 *SECNO 18.270
     18.27       2.20   1821.70      0.00   1820.54   1821.81      0.11       2.21       0.01   1819.50
     9720.       3449.       214.      6057.      1504.        66.      2191.      907.       445.       1819.50
       0.79       2.29       3.24       2.75      0.070      0.070      0.070      0.000   1819.50   5389.95
  0.008093        350.       350.       353.          2          0          0       0.00   2795.03   8184.98

 *SECNO 18.310
     18.31       2.74   1823.74      0.00   1822.70   1823.84      0.10       2.04       0.00   1821.00
     9720.       2362.       271.      7088.      1092.        82.      2657.      929.       460.       1821.00
       0.82       2.16       3.29       2.57      0.080      0.080      0.080      0.000   1821.00   5889.87
  0.006194        250.       250.       253.          3          0          0       0.00   2385.69   8278.56

 *SECNO 18.610
     18.61       1.55   1830.55      0.00   1829.90   1830.59      0.03       6.74       0.01   1829.00
     6410.       3579.      1076.      1755.      1993.      1349.      2964.      1094.      593.       1829.00
       1.11       1.90       0.80       0.59      0.040      0.080      0.160      0.000   1829.00   180.89
  0.002474       1500.      1450.      1403.          6          0          0       0.00   5657.20   5838.09

 *SECNO 18.850
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3265 DIVIDED FLOW

3280 CROSS SECTION 18.85 EXTENDED 0.75 FEET

18.85	1.75	1837.75	0.00	1837.50	1837.88	0.13	7.26	0.03	1837.00
6410.	3921.	1134.	1355.	1112.	638.	1184.	1251.	752.	1837.00
1.26	3.53	1.78	1.15	0.040	0.080	0.160	0.000	1836.00	187.45
0.013418	1500.	1500.	1500.	5	0	0	0.00	3574.74	4900.00

*SECNO 18.910

3265 DIVIDED FLOW

3280 CROSS SECTION 18.91 EXTENDED 0.12 FEET

18.91	2.62	1839.12	0.00	1838.47	1839.14	0.02	1.24	0.01	1837.50
4850.	204.	2897.	1749.	131.	2349.	3149.	1273.	772.	1837.50
1.33	1.55	1.23	0.56	0.040	0.080	0.160	0.000	1836.50	2888.01
0.002318	260.	250.	200.	3	2	0	0.00	3990.10	7700.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

*SECNO 19.060

3265 DIVIDED FLOW

19.06	1.55	1841.55	0.00	1841.15	1841.69	0.14	2.52	0.04	1840.00
4850.	858.	2920.	1073.	217.	933.	951.	1319.	808.	1840.00
1.38	3.94	3.13	1.13	0.040	0.080	0.160	0.000	1840.00	1120.24
0.015783	520.	520.	520.	3	0	0	0.00	2067.70	4819.47

*SECNO 9.300

9.30	2.28	1846.28	0.00	1845.55	1846.31	0.03	4.61	0.01	1845.00
4850.	184.	3200.	1467.	122.	2152.	2208.	1381.	856.	1844.00
1.56	1.51	1.49	0.66	0.040	0.080	0.160	0.000	1844.00	1691.23
0.002942	700.	800.	850.	3	0	0	0.00	3030.75	4721.97

1490 NH CARD USED
*SECNO 9.410

3265 DIVIDED FLOW

3280 CROSS SECTION 9.41 EXTENDED 0.72 FEET

9.41	1.32	1849.22	0.00	1848.86	1849.33	0.11	2.99	0.03	1847.90
4850.	2552.	1784.	514.	1019.	592.	203.	1425.	895.	1847.90
1.62	2.50	3.01	2.53	0.047	0.060	0.060	0.000	1847.90	2113.38
0.010246	600.	600.	600.	5	0	0	0.00	2551.21	4900.00

1490 NH CARD USED
*SECNO 9.411

3370 NORMAL BRIDGE,NRD= 19 MIN ELTRD= 1848.90 MAX ELLC= 1850.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 2700.0 6120.0 TYPE= 1 TARGET= 3420.000

9.41	11.92	1851.52	1851.52	1851.04	1852.02	0.49	0.03	0.11	1847.80	
24000.	18508.	4386.	1106.	5185.	403.	569.	1425.	895.	1847.80	
1.62	3.57	10.89	1.94	0.043	0.015	0.037	0.000	1840.50	2700.00	
0.006373	5.	5.	5.	20	11	0	-5325.21	3420.00	6120.00	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LVW LEFT OVERBANK BREAKC

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6.920	0.00	0.00	0.00	1777.70	2870.00	1788.00	0.00	1788.00	0.16	0.32	15560.10	7204.04
	6.920	0.00	0.00	0.00	1777.70	23540.00	1791.00	0.00	1791.01	1.14	1.00	31203.13	22018.90
*	17.140	580.00	0.00	0.00	1788.00	2870.00	1788.28	1788.28	1788.41	1083.88	2.99	976.78	87.17
	17.140	580.00	0.00	0.00	1788.00	11930.00	1791.09	0.00	1791.10	4.19	0.92	13502.11	5825.83
	17.340	600.00	0.00	0.00	1791.00	2870.00	1792.38	0.00	1792.40	21.52	1.22	2829.61	618.61
*	17.340	600.00	0.00	0.00	1791.00	11930.00	1792.28	1792.28	1792.66	532.80	5.77	2490.03	516.84
	17.600	1200.00	0.00	0.00	1796.00	2870.00	1797.53	0.00	1797.64	129.79	3.21	1180.08	251.91
	17.600	1200.00	0.00	0.00	1796.00	11930.00	1800.02	0.00	1800.08	22.35	2.54	6376.07	2523.50
	17.680	370.00	0.00	0.00	1797.50	2870.00	1800.12	0.00	1800.19	42.28	2.63	1624.10	441.39
	17.680	370.00	0.00	0.00	1797.50	11930.00	1801.32	0.00	1801.47	71.61	4.39	3984.77	1409.81
	17.970	1750.00	0.00	0.00	1810.00	2840.00	1811.64	0.00	1811.71	117.30	3.19	1363.31	262.22
	17.970	1750.00	0.00	0.00	1810.00	11470.00	1813.12	0.00	1813.23	62.90	3.60	4517.99	1446.18
	18.190	1110.00	0.00	0.00	1816.00	2840.00	1818.39	0.00	1818.43	36.80	2.30	1937.64	468.17
	18.190	1110.00	0.00	0.00	1816.00	11470.00	1819.51	0.00	1819.59	52.38	3.55	5334.47	1584.86
	18.270	350.00	0.00	0.00	1819.50	2570.00	1820.54	0.00	1820.62	140.07	2.59	1188.85	217.15
	18.270	350.00	0.00	0.00	1819.50	9720.00	1821.70	0.00	1821.81	80.93	3.24	3761.36	1080.45
	18.310	250.00	0.00	0.00	1821.00	2570.00	1822.70	0.00	1822.74	56.50	1.99	1738.38	341.90
	18.310	250.00	0.00	0.00	1821.00	9720.00	1823.74	0.00	1823.84	81.94	3.29	3831.05	1073.76
	18.610	1450.00	0.00	0.00	1829.00	2280.00	1829.90	0.00	1829.92	43.85	0.72	2807.41	344.31
	18.610	1450.00	0.00	0.00	1829.00	6410.00	1830.55	0.00	1830.59	24.74	0.80	6195.90	1288.74
	18.850	1500.00	0.00	0.00	1836.00	2280.00	1837.50	0.00	1837.53	59.30	0.90	2043.60	296.08
	18.850	1500.00	0.00	0.00	1836.00	6410.00	1837.75	0.00	1837.88	134.18	1.78	2533.48	553.37

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	18.910	250.00	0.00	0.00	1836.50	2280.00	1838.47	0.00	1838.48	28.99	0.98	3205.64	423.46

	18.910	250.00	0.00	0.00	1836.50	4850.00	1839.12	0.00	1839.14	23.18	1.23	5628.73	1007.34
	19.050	520.00	0.00	0.00	1840.00	2280.00	1841.15	0.00	1841.22	121.00	2.24	1335.25	207.27
	19.050	520.00	0.00	0.00	1840.00	4850.00	1841.55	0.00	1841.69	157.83	3.13	2100.78	386.05
	9.300	800.00	0.00	0.00	1844.00	2280.00	1845.65	0.00	1845.67	31.56	1.15	2637.34	405.88
	9.300	800.00	0.00	0.00	1844.00	4850.00	1846.28	0.00	1846.31	29.42	1.49	4481.43	894.10
	9.410	600.00	0.00	0.00	1847.90	2280.00	1848.86	0.00	1848.94	113.46	2.57	1020.04	214.05
	9.410	600.00	0.00	0.00	1847.90	4850.00	1849.22	0.00	1849.33	102.46	3.01	1814.98	479.14
*	9.411	5.00	1848.90	1850.00	1840.50	13000.00	1851.04	1851.04	1851.54	34.84	9.83	4580.49	2202.40
*	9.411	5.00	1848.90	1850.00	1840.50	24000.00	1851.52	1851.52	1852.02	63.73	10.89	6156.98	3006.36

LVW LEFT OVERBANK BREAKC

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6.920	2870.00	1788.00	0.00	0.00	0.00	5188.89	0.00
	6.920	23540.00	1791.00	3.00	0.00	3.00	5237.00	0.00
*	17.140	2870.00	1788.28	0.00	0.28	0.00	3647.79	580.00
	17.140	11930.00	1791.09	2.81	0.09	2.81	4964.17	580.00
	17.340	2870.00	1792.38	0.00	4.10	0.00	3243.85	600.00
*	17.340	11930.00	1792.28	-0.10	1.19	-0.10	3218.10	600.00
	17.630	2870.00	1797.53	0.00	5.15	0.00	1391.45	1200.00
	17.630	11930.00	1800.02	2.49	7.74	2.49	3135.18	1200.00
	17.680	2870.00	1800.12	0.00	2.59	0.00	1614.79	370.00
	17.680	11930.00	1801.32	1.19	1.29	1.19	2455.03	370.00
	17.970	2840.00	1811.64	0.00	11.52	0.00	1615.15	1750.00
	17.970	11470.00	1813.12	1.48	11.81	1.48	2516.19	1750.00
	18.190	2840.00	1818.39	0.00	6.75	0.00	2024.47	1110.00
	18.190	11470.00	1819.51	1.12	6.39	1.12	3955.88	1110.00
	18.270	2570.00	1820.54	0.00	2.15	0.00	1643.36	350.00
	18.270	9720.00	1821.70	1.16	2.19	1.15	2795.03	350.00
	18.310	2570.00	1822.70	0.00	2.16	0.00	1713.38	250.00
	18.310	9720.00	1823.74	1.04	2.04	1.04	2388.69	250.00
	18.610	2280.00	1829.90	0.00	7.20	0.00	4550.47	1450.00
	18.610	6410.00	1830.55	0.65	6.81	0.65	5657.20	1450.00
	18.850	2280.00	1837.50	0.00	7.60	0.00	3424.93	1500.00
	18.850	6410.00	1837.75	0.25	7.20	0.25	3574.74	1500.00
	18.910	2280.00	1838.47	0.00	0.98	0.00	3492.19	250.00
	18.910	4850.00	1839.12	0.65	1.37	0.65	3990.10	250.00
	19.060	2280.00	1841.15	0.00	2.67	0.00	1711.16	520.00
	19.060	4850.00	1841.55	0.41	2.44	0.41	2067.70	520.00
	9.300	2280.00	1845.65	0.00	4.51	0.00	2676.43	800.00
	9.300	4850.00	1846.28	0.63	4.73	0.63	3030.75	800.00
	9.410	2280.00	1848.86	0.00	3.20	0.00	1815.42	600.00

	9.410	4850.00	1845.22	1.36	2.93	0.36	2551.21	600.00
*	9.411	13000.00	1851.04	0.00	2.19	0.00	3420.00	5.00
*	9.411	24000.00	1851.52	0.49	2.31	0.49	3420.00	5.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 17.140 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 17.140 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 17.140 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 17.140 PROFILE= 1 SLOPE TOO STEEP

CAUTION SECNO= 17.340 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 17.340 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 17.340 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 9.411 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.411 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.411 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 9.411 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.411 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.411 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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EOF..

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SF
TN                BREAKOUT OVER ROB ABOVE LAMB
NS        3        6.76      7.14        -1        0.10      .002
NG        0     1783.0        830     1790.9        2050   1793.1
TN                BREAKOUT OVER LOB
NS        4        7.61      7.97        6.92      .080      .006
NG        0     1806.0           5     1806.0         300   1808.3      1930   1815.1
TN                BREAKOUT OVER LOB RIDGE
NS        3        7.97      8.27        6.92      .050      .006
NG        0     1815.1        1100    1823.9        1450   1824.0
TN                BREAKOUT OVER PECOS RD J/S LAKE MEAD
NS        7     8.270        8.61        6.92      .090      .005
NG        0     1824              5     1824           230     1826       235     1826       530   1826.4
NG      760     1827.2        2010    1830.0
TN                BREAKOUT OVER PECOS RD - LAKE MEAD TO CAREY
NS        3        8.61      8.90        6.92      .10       .005
NG        0     1830          1960    1837.0        2090   1839.0
TN                BREAKOUT OVER PECOS RD - CAREY TO LVB
NS        4        8.90      9.43        6.92      .14       .005
NG        0     1839.0           750  1842.5        1980   1848.0      2800   1850.8
TW                WEIR OVER LVB EAST OF PECOS - GOES TO OVERBANK MODEL
WS        2     9.411        9.43        6.92        3.0
WC    11400     1850        12350        1850
EE

      47
    6.75  Split flow run for Q100 and Q50 - LOB modeled separately
    6.75  Lamb Blvd - Normal Bridge routine - 1 ft debris loading
    6.75  Q500 restricted to 1:1 expansion from 6.92 to 6.16
    6.75  CL = 10000
    6.92  CL = 11370
    6.92  Upstream LOB overflows return to model.
    7.14  CL = 12260
    7.14  Q50 breakout in ROB reduce downstream flows.  Breakout not modeled.
    7.14  Q100 ROB breakout modeled separately.
    7.34  CL = 12370
    7.60  Owens Avenue Bridge - normal bridge routine - 2 ft debris loading
    7.60  CL = 11490
    7.68  CL = 11800
    7.97  CL = 12520
    7.97  Q50 breakout in LOB reduces downstream flows.  Breakout not modeled.
    7.97  Q100 breakout in LOB modeled separately.
    8.19  START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
    8.19  CL = 8980
    8.27  LAKE MEAD BLVD BRIDGE
    8.27  Q50 breakout in LOB reduces downstream flows.  Breakout not modeled.
    8.27  Q100 breakout in LOB modeled separately.
    8.27  Carey Ave Q25 breakout returns to channel
    8.27  CL = 9050
  8.271   Q25 breakout in ROB is subtracted from channel Q
    8.31  CL = 9080
    8.61  CL = 8010
    8.61  Q50 breakout over Pecos reduces d/s flows.  Breakout not modeled.
    8.61  Q100 breakout over Pecos modeled separately.
    8.85  CL = 7090
    8.90  CAREY AVE BRIDGE
    8.90  Normal bridge; approximation of arch culvert.
    8.90  May need to modify ER points for very low flows.
    8.90  CL = 10000
    8.91  CL = 10000
  8.911   Q25 reduced for LOB and ROB breakouts.  ROB returns downstream
  8.911   of Carey Ave bridge.  LOB returns at Pecos/Lake Mead.
  8.911   Q50 breakout in ROB does not return to channel.
    9.06  CL = 7310
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C    9.41  CL = 7270
C    9.41  LAS VEGAS BLVD BRIDGE
C    9.41  025 has boundaries from 9.41 to 9.47 limited with ET cards
C    9.41  to make them consistent with location of breakouts upstream.
C    9.41  CL = 5430
C    9.43  Split flow modeled as weir flow over LVB; weir length limited to
C    9.43  approx 1000 ft by effective flow expansion from 9.47.
C    9.43  CL = 5050
C    9.47  CL = 7740
T1       CORFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  -50-YEAR
J1             3                                                1784.0
J2       1          -1                                                    15
QT    4.     6400    13000    24000    34000
ET                      8.1      8.1    14940    15040          15040
NC  .070     .090     .030      0.1      0.3
NH       9   0.130     4690    0.100    13425    0.130    14809   0.030    14942   0.035
NH   15039   0.045    16195    0.100    16755    0.045    21140   0.130    22860
X1    6.71      42    14942    15039      650      450      780
X3      10                                              1784.0   1784.0
X4       2  1790.0     5200   1795.0     5600
GR1796.0     2630   1792.0     3960   1792.0     4690   1784.0     8200   1784.0    12020
GR1784.0    13425   1780.0    14065   1780.0    14680   1777.4    14809   1777.6    14835
GR1778.5    14910   1779.0    14914   1784.8    14942   1773.0    14956   1769.3    14987
GR1769.3    14997   1769.3    15012   1771.9    15025   1784.8    15039   1781.9    15040
GR1781.9    15071   1781.0    15110   1781.3    15136   1781.2    15150   1781.2    15167
GR1780.0    15195   1782.1    15222   1782.1    15298   1781.8    15387   1779.8    15404
GR1779.8    15461   1781.6    15472   1781.0    15531   1780.0    15640   1780.0    15710
GR1782.0    16195   1782.0    16755   1784.0    21140   1784.0    21860   1788.0    22235
GR1792.0    22575   1796.0    22860
ET                      6.1      8.1      8.1     9925    10075          10075
NC                      0.3      0.5
X1    6.75      22     9928    10072      140      220      220
X3      10
GR   1790     160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5    7800     1784     8250     1784     8800     1782     8900    1782      9250
GR   1780    9550     1780     9850     1783     9928   1771.4     9947   1770.9    10000
GR1771.4    10053    1783    10072     1783    12000    1783.5    12400   1783.5    15600
GR   1784   15900    1788    16900
ET              6.1      6.1      8.1      8.1     9925    10075          10075
X1  6.751       32     9928    10072        5        5        5
X3      10
X4       1  1771.4    10047
BT      -4     9928     1783     1783     9947     1783     1782    10053    1783     1782
BT            10072     1783     1783
GR   1790     160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5    7800     1784     8250     1784     8800     1782     8900    1782      9250
GR   1780    9550     1780     9850     1783     9928   1771.4     9947   1771.4    9953
GR   1782    9953     1782     9957   1771.4     9957   1770.9     9998    1782     9998
GR   1782   10032  1770.9     10002   1771.4    10043     1782    10043    1782    10047
GR1771.4    10053    1783    10072     1783    12000    1783.5    12400   1783.5    15600
GR   1784   15900    1788    16900
ET              6.1      8.1      8.1     9927    10073          10075
X1   6.76                             100      100      100                0.2
X2                0                                      1
X3      10
ET              6.1      8.1      8.1     9927    10073          10075
X1  6.761       22     9928    10072      140      220      220               0.2
X3      10
GR   1790     160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5    7800     1784     8250     1784     8800     1782     8900    1782      9250
GR   1780    9550     1780     9850     1783     9928   1771.4     9947   1770.9    10000
GR1771.4    10053    1783    10072     1783    12000    1783.5    12400   1783.5    15600
GR   1784   15900    1788    16900
ET              6.1      8.1      8.1    11320    11437          11437
X1   6.92       36    11321    11410      580      840      830
X3      10
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X4          1  1790.0       900
GR1793.0      680      1788      1000      1788      2000      1787      3500      1786      4850
GR  1795     6450      1785      9200      1784      9550      1784     10200      1784     10200
GR1787.3    11000    1787.7     11145    1786.5     11169    1786.6     11200    1787.0     11289
GR1791.0    11321    1781.8     11334    1777.7     11357    1777.7     11366    1779.0     11378
GR1781.0    11406    1790.9     11410    1786.9     11426    1790.0     11437    1789.9     11504
GR1788.3    11551    1788.1     11559    1788.1     11578    1788.1     11605    1788.1     11612
GR1788.6    11622      1786     12100    1786.      12300      1788     13600      1788     16450
GR  1792    17230
ET                      6.1       6.1                11200     12370
VC                      0.1       0.3
X1   7.14       31     12150     12369       580      1250      1200
X3     10
GR  1800      450      1791      1050      1790      1500    1789.5      2300      1788      3700
GR  1789     4600      1789      6200      1788      7200      1788     10450    1792.5     11200
GR1791.0    12000    1791.0     12114    1791.0     12150    1787.0     12224    1779.2     12259
GR1779.2    12265    1792.4     12272    1785.6     12280    1792.0     12293    1792.0     12312
GR1792.8    12369    1791.6     12391    1793.1     12412    1792.8     12524    1792.6     12729
GR1791.5    12879    1791.8     12931      1792     12970      1794     13300      1795     14000
GR  1795    16200      1796     16630      1800     16800
ET                      6.1       8.1                7300                12320
VH          4        .050     10980       .070     12321      .025     12437      .160     13730
X1   7.34       33     12321     12437       600      1300      1050
X3     10
GR1800.0      150    1795.0       900    1790.0      3500    1792.0      5000    1792.0      6850
GR1791.0     9600    1791.0      9500    1792.0      9600    1792.0     10000    1796.0     10980
GR1796.0    12000    1796.3     12048    1795.8     12125    1796.6     12229    1795.7     12268
GR1798.0    12321    1786.7     12343    1786.2     12358    1785.5     12371    1787.2     12411
GR1796.5    12437    1794.1     12463    1794.1     12531    1794.1     12538    1796.9     12548
GR1797.2    12571    1795.3     12600    1794.2     12626    1794.6     12642    1799.6     12656
GR1804.4    12726    1800.5     12730    1804.0     13739
ET                      6.1       6.1                11200
VC                      0.3       0.5
VH          6        .045      6250       .055      8000       .045      9550       .060     11410       .025
VH      11577        0.16     12410
X1   7.60       24     11410     11577      1200      1350      1360
X3     10
GR1804.0      200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5     4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0     8450    1797.0      9800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0    11200    1804.5     11280    1803.9     11410    1793.8     11441    1793.8     11546
GR1803.8    11577    1804.8     11790    1805.7     11970    1808.0     12410
ET                      6.1       6.1                11200
VH          6        .045      6250       .055      8000       .045      9550       .060     11410       .025
VH      11577        0.16     12410
X1  7.601       39     11410     11577         5         5         5
X3     10
BT         -4    11410     1803.9     1803.9     11440     1803.9     1802.3     11547     1803.8     1802.3
BT           11577     1803.8     1803.9
GR1804.0      200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5     4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0     8450    1797.0      9800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0    11200    1804.5     11280    1803.9     11410    1793.9     11440    1802.3     11440
GR1802.3 11443.5     1793.8  11443.5     1793.8  11474.5     1802.3  11474.5     1802.3     11478
GR1793.8    11478    1793.8     11509    1802.3     11509    1802.3  11512.5     1793.8  11512.5
GR1793.8 11543.5     1802.3  11543.5     1802.3     11547     1793.8     11547     1803.8     11577
GR1803.8    11577    1804.8     11790    1805.7     11970    1808.0     12410
ET                      6.1       6.1                11200
VH          6        .045      6250       .055      8000       .045      9550       .060     11410       .025
VH      11577        0.16     12410
X1  7.610       39     11410     11577        70        70        70
X3     10
BT         -4    11410     1803.9     1803.9     11440     1803.9     1802.3     11547     1803.8     1802.3
BT           11577     1803.8     1803.8
GR1804.0      200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5     4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0     8450    1797.0      9800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0    11200    1804.5     11280    1803.9     11410    1793.9     11439    1802.3     11439
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GR1802.3 11444.5   1793.9 11444.5   1793.9 11473.5   1802.3 11473.5   1802.3   11479
GR1793.9   11479   1793.9   11508   1802.3   11508   1802.3 11513.5   1793.9 11513.5
GR1793.9 11542.5   1802.3 11542.5   1802.3   11547   1793.8   11547   1803.2   11577
GR1803.8   11577   1804.8   11790   1805.7   11970   1808.0   12410
ET                   6.1      6.1           11200
NH       6   .045      6250    .055      8000    .045      9550    .060     11410    .025
NH   11577  0.16     12410
X1   7.611    24     11410   11577         5       5         5
X3      10
GR1804.0     200   1800.0     600   1798.0    1300   1796.5    1600   1796.5    3300
GR1799.5    4300   1799.0    6250   1799.5    6800   1796.0    8000   1796.0    8290
GR1797.0    9450   1797.0    8800   1800.0    9550   1800.0    9930   1804.0   10730
GR1806.0   11200   1804.5   11280   1803.9   11410   1793.9   11441   1793.9   11547
GR1803.8   11577   1804.8   11790   1805.7   11970   1808.0   12410
ET                   6.1      6.1           11639
NH       6   .040      5800    .070      7700    .040     10500    .120     11640    .025
NH   11930   .150     13620
X1   7.68     32     11640   11930       290     220       280
X3      10                                                1803.0   1803.0
GR1810.0     400   1800.0    1650   1799.0    2200   1799.0    3750   1800.0    4000
GR1802.0    4450   1801.0    5900   1801.0    6900   1801.0    7700   1800.0    8070
GR1800.0    9350   1797.5    9550   1797.5    8700   1800.0    9060   1799.0    9250
GR1799.0    9400   1800.0    9610   1804.0   10500   1804.4   11000   1808.3   11640
GR1808.0   11710   1796.0   11760   1794.5   11790   1794.5   11830   1796.0   11840
GR1808.0   11870   1809.5   11930   1806.5   12200   1806.8   12470   1808.0   12570
GR1808.0   13100   1812.0   13620
ET                   6.1      6.1           12410
NC                               0.1      0.3
NH       5   .040      3400    .060     12470    .025     12766    .040     13400    .160
NH   14200
X1   7.97     34     12454   12563        1750     1340      1610
X3      10
X4       2 1813.0     11000 1813.0     11700
GR1816.0     500   1812.0    1000   1810.0    1800   1810.0    2400   1813.0    3400
GR1811.0    4600   1811.0    7500   1812.0    8500   1810.0    9450   1810.0   10000
GR1815.2   12000   1816.6   12227   1815.6   12313   1813.6   12367   1815.1   12418
GR1812.8   12442   1812.9   12454   1812.0   12470   1806.5   12503   1806.0   12515
GR1806.0   12526   1806.7   12540   1808.8   12561   1812.4   12563   1813.7   12597
GR1814.5   12669   1813.0   12701   1814.0   12736   1815.0   12756   1816.0   12766
GR1816.7   12794   1815.0   13250   1816.0   13400   1816.0   14200
ET                   6.1      6.1           8940
NH       6   .040      3800    .060      7800    .050      8941    .030      9014    .050
NH    9204  0.14     11140
X1   8.19     39      8941    9014        1110     930      1140
X3      10                                                1822.0   1822.0
GR1823.0     300   1817.0    1200   1816.0    2500   1820.0    3800   1818.0    4980
GR1819.0    5810   1816.0    7030   1820.0    7800   1820.0    8000   1820.0    8000
GR1819.2    8000   1815.6    8169   1819.4    8408   1820.1    8794   1820.5    8849
GR1821.5    8875   1820.3    8921   1822.6    8927   1823.9    8941   1812.6    8952
GR1810.6    8975   1810.6    8988   1813.2    9001   1814.1    9010   1823.9    9014
GR1820.9    9040   1823.5    9062   1826.7    9084   1826.3    9115   1820.8    9150
GR1819.5    9153   1821.5    9204   1822.0    9255   1823.0    9550   1823.0   10300
GR1823.0   10530   1824.0   10650   1824.0   10940   1824.5   11140
ET                   6.1      8.1           9000     9290     9000
NH       5   .040      4430    .060      9006    .025      9094    .030      9400    0.14
NH   10560
X1   8.27     23      9006.   9094.        350      300       330
X3      10                                                1825.0   1825.0
X4       3 1821.0     8000 1823.0     8650 1823.0     8850
GR1824.0     600   1820.0    1300   1819.0    2400   1820.0    3200   1824.0    4000
GR1822.0    4430   1819.5    5200   1821.0    5850   1819.5    6770   1819.5    7400
GR 1824.    9003.   1824.    9006.   1814.0    9018.  1813.7   905).   1814.0   9082.
GR1822.2    9094.   1823.    9100.   1823.0    9290   1824.0    9400   1824.5    9900
GR1825.0   10050   1825.0   10450   1826.0   10560
BT       1  5390
ET                   6.1      8.1           9000     9290     9000
NC                               0.3      0.5
NH       5   .040      4430    .060      9006    .015      9095    .030      9400    0.14
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NH 10560
X1  8.271        48    9017.    9095.       5       5       5
X3        10                                          1825.0  1825.0
X4         3  1821.0    8000  1823.0    8650  1823.0    8850
BT        -4    9006  1824.0            9017  1824.1  1821.7    9025  1823.2  1821.7
BT              9095  1823.2  1821.7
GR1824.0       600  1820.0    1300  1819.0    2400  1820.0    3200  1824.0    4000
GR1822.0      4430  1819.5    5200  1821.0    5850  1819.5    6770  1819.5    7400
GR 1824.    9000.    1824.    9006.  1824.0    9017  1813.7  9017.0  1813.7    9025
GR1821.7   9028.3  1813.7   9028.3  1813.7  9034.3  1821.7  9034.3  1821.7  9037.6
GR1813.7   9037.6  1813.7   9043.6  1821.7  9043.6  1821.7  9047.2  1813.7  9047.2
GR1813.7   9057.2  1821.7   9057.2  1821.7    9060  1813.7    9060  1813.7    9070
GR1821.7     9070  1921.7     9073  1813.7    9073  1813.7    9083  1821.7    9083
GR1821.7   9086.6  1813.7   9096.6  1813.7  9095.0  1823.2    9095  1823.2    9095
GR1822.2     9096.    1823.    9100.  1823.0    9290  1824.0    9400  1824.5    9500
GR1825.0    10050  1825.0    10450  1826.0   10560
ET                    6.1       8.1             8900    9270    8900
NC   .055     0.14     .015       0.1     0.3
X1  8.31        48.    9040.    9116.     235.    235.    235.
X2
X3        10
X4         1  1824.0    8280
BT        -5    8940  1824.0            9040  1824.1  1822.0    9046  1823.2  1822.0
BT              9116.0  1824.1  1822.0    9120  1824.0
GR1826.5       800  1822.0    1200  1822.0    2400  1823.0    3200  1823.0    3200
GR1824.0      4000  1823.8    5850  1823.5    6050  1821.0    6770  1822.0    7800
GR 1826.    3900.    1826.    8940  1824.1    9040  1814.0  9040.0  1814.0    9046
GR1822.0      9046  1822.0   9051.3  1814.0  9051.3  1814.0  9055.3  1822.0  9055.3
GR1822.0   9060.6  1814.0   9060.6  1814.0  9064.6  1822.0  9064.6  1822.0  9070.2
GR1814.0   9070.2  1814.0   9078.2  1822.0  9078.2  1822.0  9083.0  1814.0    9083
GR1814.0      9091  1822.0     9051  1822.0    9096  1814.0    9096  1814.0    9104
GR1822.0      9104  1822.0   9109.6  1814.0  9109.6  1814.0  9116.0  1824.0    9116
GR1824.0    9120.    1826.    9140.    1824.    9148.  1823.6    9270  1823.6    9580
GR1824.0      9770  1826.0   10130  1826.0   11780
QT         1  5520
ET                    6.1       8.1             8900    9270    8900
NC   .055     0.14     .025       0.3     0.5
X1  8.311       23.    9014.    9140.       5.      5.      5.
X3        10
X4         1  1824.0    8280
GR1826.5       800  1822.0    1200  1822.0    2400  1823.0    3200  1823.0    3200
GR1824.0      4000  1823.8    5850  1823.5    6050  1821.0    6770  1822.0    7800
GR 1826.    3900.    1826.    8940  1824.1    9014.  1814.5  9034.    1814.  9075.
GR1814.5    9120.    1824.    9140.    1824.    9148.  1823.6    9270  1823.6    9580
GR1824.0      9770  1826.0   10130  1826.0   11780
ET                    6.1       6.1             6880
NC                            0.1     0.3
NH         7    .040     2020    .060    3700    0.16    5380    .040    7000    0.16
NH   7863       .025     8094    0.16   11250
X1  8.61        39.    7923.    8094.    1570.   1370.   1560.
X3        10                                          1828.5  1828.5
X4         3  1830.5    2900  1830.0    7400  1832.0    7700
GR1832.0          0  1830.0     250  1829.0    2020  1829.0    3700  1829.0    5380
GR1831.0       5970  1827.0    6250  1827.0    6730  1830.0    6880  1825.1    7000
GR1833.1   007741  1833.1   007741  1833.1   007741  1833.1   007741  1833.1   007741
GR1832.7   007754  1830.2   007793  1830.2   007836  1832.8   007863  1832.6   007923
GR1829.9   007952  1822.7   007970  1818.9   008025  1820.1   008039  1822.1   008062
GR1830.3   008077  1832.3   008094  1832.3   008135  1832.4   008173  1832.0     8180
GR1832.0     8710  1832.0     9180  1832.0     9230  1832.0    10070  1832.4    10360
GR1833.0    10500  1834.0    10750  1834.0    11100  1836.0    11250
ET                    6.1       8.1             4900            4900  10080
NH         4    .040     1700    0.16    7007    .025    7188    0.16   11180
X1  8.85        49    7007.    7188.    1370.   1200.   1250.
X3        10                                          1834.5  1834.5
X4         1  1836.0    4180
GR1840.0          0  1837.0     250  1837.0    1700  1837.0    2550  1840.0    3730
GR1837.0       4900  1833.3   005000  1834.2   005102  1833.9   005248  1834.6   005315
GR1833.9   005362  1834.0   005458  1834.2   005626  1834.0   005773  1833.5   005856
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GR1833.7  005977  1834.6  006004  1834.8  006111  1833.7  006220  1837.7    6395
GR1837.7  006554  1838.1  006837  1838.8  006858  1839.4  006879  1837.9  006900
GR1837.2  006953  1837.0  006981  1837.6  007007  1834.4  007013  1833.0  007025
GR1827.3  007031  1825.1  007044  1824.4  007064  1824.4  007099  1826.2  007119
GR1825.9  007122  1833.5  007134  1835.6  007142  1837.7  007163  1837.8  007188
GR1837.8    7250  1838.0    7420  1838.0    8170  1835.5    8550  1835.7    9570
GR1838.0   10080  1840.0   10450  1842.0   10870    1844   11180
QT    1    5450
ET                  6.1     8.1            7700   11000    7700   12530
NC                          0.3     0.5
NH     6     .040    4500    0.16    9100    .080    9910    .025   10070    0.16
NH 11770    0.12   13920
X1  8.90      35    9910.   10070.     170.     360.     230.
X3    10                                                1836.5  1836.5
X4     2  1840.0    2800  1836.5    6980
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1826.0    9950  1825.2    9955  1825.2   10020  1826.0   10025
GR1838.0   10070  1838.0   10270  1339.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13200  1842.0   13250  1844.0   13580  1844.0   13900  1846.0   13920
ET                  6.1     8.1            7700   11000    7700   12530
NH     6     .040    4500    0.16    9100    .080    9910    .015   10070    0.16
NH 11770    0.12   13920
X1 8.901      50    9950.   10019.      5.      5.      5.
X3    10                                                1837.8  1838.0
X4     3  1840.0    2800  1836.5    6980  1838.0   10070
BT    -7    9890  1837.8            9910  1838.1            9950  1838.5  1832.4
BT          9988  1838.7  1832.4   10019  1838.5  1832.4   10070  1838.2
BT         10270  1838.0
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1837.8    9950  1825.2    9950  1825.2    9959  1832.4    9959
GR1832.4    9964  1825.2    9964  1825.2    9974  1832.4    9974  1832.4    9979
GR1825.2    9979  1825.2    9989  1832.4    9989  1832.4    9994  1825.2    9994
GR1825.2   10004  1832.4   10004  1832.4   10009  1825.2   10009  1825.2   10019
GR1838.0   10019  1838.0   10270  1339.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13200  1842.0   13250  1844.0   13580  1844.0   13900  1846.0   13920
ET                  6.1     8.1            7700   11000    7700   12530
NH     5     .040    4500    0.16    9100    .080    9910    .015   10070    0.16
NH 11770    0.12   13920
X1  8.91      50    9950.   10018.     70.     70.     70.
X2
X3    10                                                1838.1  1838.1
X4     3  1840.0    2800  1836.5    6980  1838.0   10070
BT    -7    9890  1837.8            9910  1839.1            9950  1838.5  1832.8
BT          9988  1838.7  1832.8   10018  1838.5  1832.8   10070  1838.2
BT         10270  1838.0
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1837.8    9950  1825.6    9950  1825.6    9958  1832.8    9958
GR1832.8    9965  1825.6    9965  1825.6    9973  1832.8    9973  1832.8    9980
GR1825.6    9980  1825.6    9988  1832.8    9988  1932.8    9995  1825.6    9995
GR1825.6   10003  1832.8   10003  1832.8   10010  1825.6   10010  1825.6   10018
GR1838.0   10018  1838.0   10270  1339.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13200  1842.0   13250  1844.0   13580  1844.0   13900  1846.0   13920
QT    2    5520   13000
ET                  6.1     8.1            7700   11000    7700   12530
NC                          0.3     0.5
NH     5     .040    4500    0.16    9100    .080    9910    .025   10070    0.16
NH 11770    0.12   13920
X1 8.911      35    9945.   10025.      5.      5.      5.
X3    10                                                1838.1  1838.1
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K4	2	1540.0	2500	1536.5	5980					
GR1843.0		2650	1837.5	3050	1837.5	4500	1837.5	5350	1841.0	6530
GR1839.0		7700	1837.0	7800	1836.0	7880	1836.0	8140	1835.9	8550
GR1835.2		8850	1836.5	9100	1837.6	9340	1837.5	9870	1837.8	9890
GR1837.8		9910	1828.0	9945	1825.6	9960	1825.6	10015	1828.0	10025
GR1838.0		10070	1838.0	10270	1839.1	10430	1838.0	10800	1837.	11000.
GR1837.0		11770	1838.0	11940	1838.0	12530	1838.0	12810	1840.0	12870
GR1840.0		13200	1842.0	13250	1844.0	13580	1844.0	13900	1846.0	13920
BT	1	6400								
ET			6.1	8.1		4850	7361	4850	8750	
NH	5	.040	2000	0.16	7219	.025	7349	0.16	8360	.11
NH	10960									
K1	9.06	32.	7219.	7349.	650.	830.	920.			
GR1845.0		500	1840.0	1400	1840.0	2000	1841.0	2800	1844.0	4450
GR1841.0		4830	1842.5	4850	1840.9	5000	1840.0	5350	1840.0	7110
GR1842.3		007186	1840.5	007219	1840.7	007238	1833.3	007255	1828.1	007301
GR1832.1		007328	1841.1	007349	1841.9	007361	1840.3	007375	1840.7	007406
GR1840.3		007451	1840.0	7670	1840.0	8360	1841.0	8750	1841.2	9140
GR1842.0		9180	1842.5	9450	1843.1	9900	1844.0	10130	1846.0	10510
GR1846.0		10700	1846.5	10960						
NC				0.1	0.3					
NH	9	.040	4000	0.16	4850	.035	5750	0.13	6630	.030
NH	7212	.026	7447	.036	7900	.050	8700	0.16	11320	
ET			6.1	6.1		4850	7900			
K1	9.30	39	7212	7447	1040	1070	1250			
K4	1	1850.0	1150							
GR1852.0		1000	1845.0	1880	1844.0	3080	1845.0	4000	1846.0	4700
GR1848.0		4850	1846.8	4950	1846.0	5000	1846.0	5300	1845.7	5430
GR1846.2		5750	1843.5	6150	1847.0	6990	1847.0	7162	1847.1	7212
GR1837.8		007232	1835.2	007252	1834.4	007263	1837.8	007291	1842.1	007307
GR1841.4		7327	1840.4	7346	1840.9	7376	1841.2	7390	1840.2	7407
GR1843.8		7422	1844.7	7447	1843.4	7468	1845.5	7840	1846.0	7900
GR1845.5		7980	1845.5	8700	1845.5	9520	1846.0	9760	1848.0	10000
GR1850.0		10400	1850.0	11080	1851.3	11150	1852.0	11320		
ET			6.1	6.1		12700	16400			
NC				0.3	0.5					
NH	8.	.080	12650	.040	14000	.060	14700	.037	15370	.025
NH	15496	.037	16120	.055	17650	.080	18900			
K1	9.41	43	15370.	15496.	340.	330.	570.			
K3	10							1849.8	1850.1	
K4	3	1850.0	9700	1850.0	11800	1848.5	13410			
GR1853.0		9200	1849.0	12200	1849.0	12650	1849.9	12760	1849.0	12960
GR1848.5		14000	1848.0	14150	1847.9	14250	1847.9	14700	1848.5	14900
GR1847.9		015000	1847.9	015065	1847.9	015118	1847.8	015134	1847.9	015242
GR1847.9		015264	1847.9	015306	1848.0	015352	1847.9	015370	1840.5	015389
GR1840.5		015417	1840.5	015461	1845.4	015480	1846.5	015496	1847.4	015535
GR1847.5		015559	1847.2	015579	1847.4	015601	1847.5	015631	1848.9	015676
GR1846.1		015735	1848.3	015762	1846.1	015790	1847.2	015815	1848.2	015950
GR1849.5		16120	1848.3	16200	1849.0	16600	1849.0	17400	1850.0	17650
GR1850.0		18000	1852.0	18280	1854.0	18900				
ET		6.1	6.1	6.1		12700	16400			
NH	8.	.080	12650	.040	14000	.060	14700	.037	15370	.015
NH	15496	.037	16120	.055	17650	.080	18900			
K1	9.411	58	15391.	15459.	5.	5.	5			
K3	10							1849.8	1850.1	
K4	3	1350.0	9800	1850.0	11800	1850.5	12700	1849.9	13410	
BT	-11	15000	1849.9	1847.9	15065	1849.9	1847.9	15184	1850.7	1847.9
BT		15264	1851.3	1847.9	15391	1851.4	1847.8	15459	1851.4	1847.8
BT		15559	1851.0	1847.5	15676	1851.0	1848.9	15735	1851.0	1846.1
BT		15762	1851.0	1849.3	15950	1851.1	1848.2			
GR1860.0		9700	1850.0	12200	1850.0	12650	1849.9	12760	1849.9	12960
GR1848.5		14000	1848.9	14150	1849.9	14250	1849.9	14700	1849.9	14900
GR1847.9		015000	1847.9	015065	1847.9	015118	1847.8	015184	1847.9	015242
GR1847.9		015264	1847.9	015306	1848.0	015352	1847.9	015370	1847.8	015391
GR1840.5		15391	1840.5	15401	1847.8	15401	1847.8	15414	1840.5	15404
GR1840.5		15415	1847.8	15415	1847.8	15418	1840.5	15418	1840.5	15429
GR1847.8		15429	1847.8	15434	1840.5	15434	1840.5	15445	1847.8	15445
GR1847.8		15448	1840.5	15448	1840.5	15459	1847.8	15459	1847.4	15535

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GR1847.5  015559  1847.2  015579  1847.4  015601  1847.5  015631  1848.9  015676
GR1846.1  015735  1848.3  015762  1846.1  015790  1847.2  015815  1848.2  015950
GR1849.5   16120  1850.1   16200  1850.1   16600  1850.1   17400  1850.1   17650
GR1850.0   18000  1852.0   18280  1854.0   18900
ET             6.1             6.1             6.1             12350   15900
NH     5.    .090   12350    .035   14500.    .060   15000.    .015   15120.    .040
NH18630.
K1  9.43       48   15020.   15087.     110.     110.     110.
X3    10                                                  1849.0  1850.1
X4     7  1850.0     9400  1850.0    11150  1849.9    13820  1849.8    14500  1849.9
X4 14680  1850.7    14750  1851.3    14890
BT   -10   15000  1851.4  1850.0    15000  1851.4  1850.0   15020  1851.4  1849.1
BT         15087  1850.1  1849.1    15120  1851.0  1851.0   15400  1851.8  1851.0
BT         15500  1851.2  1850.0    15600  1851.0  1850.0   15750  1850.2  1850.0
BT         16120  1850.0  1850.0
GR1860.0    8300  1850.0   11750  1850.0    12250  1850.0   12250  1850.0    12250
GR1850.0   12350  1850.0   12350  1850.0    12970  1850.0   13000  1849.2    13300
GR1851.4   15000.  1851.4   15000.  1851.4   15000.  1849.2   15020  1841.8    15020
GR1841.8   15029  1849.1   15029  1849.1    15034  1841.8   15034  1841.8    15043
GR1849.1   15043  1849.1   15048  1841.8    15048  1841.8   15057  1849.1    15057
GR1849.1   15064  1841.8   15064  1841.8    15073  1849.1   15073  1849.1    15078
GR1841.8   15078  1841.8   15087  1849.2    15087  1849.2   15087  1850.0    15100
GR 1850.   15100.  1851.   15120.  1851.0    15400  1850.0   15500  1850.0    15600
GR1850.2   15750  1850.1   16120  1850.1    16200  1850.1   17200  1850.8    17450
GR1851.0   17700  1852.2   17950  1852.7    18250  1854.1   18370  1855.2    18630
ET             6.1             6.1             6.1             12350   15900
NC                             0.3             0.5
NH     5.    .090   12350    .035   14500.    .060   15000.    .025   15100.    .040
NH18630.
K1 9.431       31   15000.   15100.       5.       5.       5.
X3    10                                                  1849.8  1850.1
GR1860.0    8300  1850.0    9400  1850.0     9400  1850.0    9400  1850.0     9400
GR1850.0   11500  1849.0   11750  1849.0    12250  1849.0   12250  1849.0    12250
GR1850.0   12350  1850.0   12350  1850.0    12350  1849.5   12450  1849.5    13700
GR1849.5   14000.  1850.0  14400.  1850.     15000.  1841.8  15040.  1841.8   15070.
GR 1850.   15100.  1851.   15120.  1851.0    15400  1850.0   15500  1850.0    16120
GR1849.5   16200  1849.5   17200  1850.0    17450  1852.0   18150  1854.0    18500
GR1854.2   18630
ET             6.1             6.1             4940    8521
NH     6    .080    5000    .060    5575.    .035    7300.    .060    7655.    .027
NH 7845.    .060   11250
X1  9.47       87    7655    7845      185      185      185
X3    10
X4     2  1852.2     4940  1842.3     7728
GR1852.0    4200  1851.0    4450  1852.5     4900  1852.5    4900  1852.5     4900
GR1851.6  005000  1851.4  005059  1850.7  005063  1850.9  005115  1850.4  005147
GR1850.9  005182  1851.0  005217  1850.4  005256  1850.8  005304  1849.7  005380
GR1850.1  005446  1850.4  005631  1850.4  005694  1850.1  005790  1849.9  005861
GR1849.9  005900  1849.6  005925  1849.3  005941  1849.7  005988  1849.9  006040
GR1849.9  006037  1849.2  006171  1849.2  006214  1848.9  006298  1849.2  006340
GR1849.5  006412  1849.5  006461  1849.6  006511  1849.2  006558  1848.4  006675
GR1850.3  006715  1849.7  006735  1850.4  006804  1850.4  006862  1849.6  006928
GR1849.9  006991  1849.9  007041  1849.9  007097  1850.4  007142  1851.2  007181
GR1850.7  007250  1850.1  007276  1850.3  007300  1850.7  007318  1851.2  007345
GR1851.0  007387  1851.4  007425  1851.4  007484  1851.8  007524  1850.8  007556
GR1850.7  007591  1851.2  007622  1852.0  007655  1851.3  007680  1844.5  007702
GR1842.3  007758  1844.6  007777  1843.8  007783  1850.4  007803  1850.7  007845
GR1850.4  007893  1850.3  007955  1850.4  007996  1850.3  008065  1850.1  008129
GR1849.3  008190  1850.1  008239  1849.7  008253  1849.2  008324  1850.0  008364
GR1851.4  008384  1849.7  008418  1849.9  008453  1849.9  008512  1850.8  008521
GR1848.3    9000  1848.3    9500  1849.2    10200  1850.0   10350  1852.0    10700
GR1854.0   11030  1856.0   11250
EJ
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  -100-year
J1             4                                                 1785.0
J2    15              -1                                                 15
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ER
EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   4-MAY-88 TIME   11:02:38          *
 *************************************************
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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      X     X  XXXXXXX   XXXXX                XXXXX
      X     X  X        X     X              X     X
      X     X  X        X                    X     X
      XXXXXXX  XXXX     X           XXXXX    XXXXX
      X     X  X        X                    X
      X     X  X        X     X              X
      X     X  XXXXXXX   XXXXX               XXXXXXX
1
   4-MAY-88     11:02:40                                                    PAGE     1


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,35
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

C
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGP
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - 25-YEAR
J1   ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINC      Q          WSEL       FQ
        0.         2.         0.         0.   0.002000       0.00       0.0         0.    1780.900      0.000
J2   NPROF      IPLOT      PRFVS      XSECV      XSECH         FN      ALLDC       IBW        CHNIM      ITRACE
       1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000

QT        4.000   6400.000  13000.000  24000.000  84000.000      0.000      0.000      0.000      0.000      0.000
ET        0.000      0.000      0.000      0.000      0.100      0.000      0.000      0.000  19300.000      0.000
NC        0.070      0.080      0.030      0.100      0.300      0.000      0.000      0.000      0.000      0.000
NH        9.000      0.130   4690.000      0.100  13425.000      0.130  14809.000      0.030  14942.000      0.035
NH    15039.000      0.045  16195.000      0.100  16755.000      0.045  21140.000      0.130  22860.000      0.000
X1        6.710     42.000  14942.000  15139.000    650.000    450.000    780.000      0.000      0.000      0.000
X4        2.000   1790.000   5200.000   1785.000   5600.000      0.000      0.000      0.000      0.000      0.000
X3       10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR     1796.000   2685.000   1792.000   3960.000   1792.000   4690.000   1784.000   8200.000   1784.000  12020.000
GR     1784.000  13425.000   1780.000  14065.000   1780.000  14680.000   1777.400  14809.000   1777.600  14835.000
GR     1778.500  14910.000   1779.000  14914.000   1784.800  14942.000   1773.000  14956.000   1769.300  14987.000
GR     1769.300  14997.000   1769.300  15012.000   1771.900  15025.000   1784.800  15039.000   1781.900  15040.000
GR     1781.900  15071.000   1781.000  15110.000   1781.300  15136.000   1781.200  15150.000   1781.200  15167.000
GR     1780.000  15195.000   1782.100  15222.000   1782.100  15298.000   1781.800  15387.000   1779.800  15404.000
GR     1779.800  15461.000   1781.600  15472.000   1781.000  15531.000   1780.000  15640.000   1780.000  15710.000
GR     1782.000  16195.000   1782.000  16755.000   1784.000  21140.000   1784.000  21860.000   1788.000  22235.000
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GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	8.100	0.000	0.000	0.000	14050.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 17000

X1	6.750	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	9250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

1

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10072.000	0.000	14050.000	0.000
X1	6.751	32.000	9928.000	10072.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1771.400	10047.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	9928.000	1783.000	1783.000	9947.000	1783.000	1782.000	10053.000	1783.000	1782.000
BT	0.000	10072.000	1783.000	1783.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	9250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1771.400	9953.000
GR	1782.000	9953.000	1782.000	9957.000	1771.400	9957.000	1770.900	9998.000	1782.000	9998.000
GR	1782.000	10002.000	1770.900	10002.000	1771.400	10043.000	1782.000	10043.000	1782.000	10047.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10072.000	0.000	14050.000	0.000
X1	6.761	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.200	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10072.000	0.000	14050.000	0.000
X1	6.761	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	9250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	0.000	0.000	8.100	0.000	0.000	0.000	14100.000	0.000

CL = 11370

X1	6.926	36.000	11321.000	11410.000	580.000	840.000	830.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1790.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1793.000	680.000	1788.000	1000.000	1788.000	2000.000	1787.000	3500.000	1788.000	4850.000
GR	1785.000	6450.000	1785.000	9200.000	1784.000	9550.000	1784.000	10200.000	1784.000	10200.000
GR	1787.300	11000.000	1787.700	11145.000	1786.500	11169.000	1786.600	11200.000	1787.000	11289.000
GR	1791.000	11321.000	1781.800	11334.000	1777.700	11357.000	1777.700	11366.000	1779.000	11378.000
GR	1781.000	11406.000	1790.900	11410.000	1786.900	11426.000	1790.000	11437.000	1789.900	11504.000
GR	1788.300	11551.000	1788.100	11559.000	1788.100	11578.000	1788.100	11605.000	1788.100	11612.000
GR	1788.600	11622.000	1786.000	12100.000	1786.000	12300.000	1788.000	13600.000	1788.000	16450.000
GR	1792.000	17230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	11200.000	12370.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CL = 12260

X1	7.140	31.000	12150.000	12369.000	580.000	1250.000	1200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	450.000	1791.000	1050.000	1790.000	1500.000	1789.500	2300.000	1788.000	3700.000
GR	1789.000	4600.000	1789.000	6200.000	1788.000	7200.000	1788.000	10450.000	1792.500	11200.000

GR	1791.000	12000.000	1791.000	12114.000	1751.000	12150.000	1787.000	12224.000	1779.200	12259.000
GR	1779.200	12265.000	1782.400	12272.000	1785.600	12280.000	1792.000	12293.000	1792.000	12312.000
GR	1796.800	12369.000	1791.600	12391.000	1793.100	12412.000	1792.800	12524.000	1792.600	12729.000
GR	1791.500	12873.000	1791.800	12931.000	1792.000	12970.000	1794.000	13300.000	1795.000	14000.000

GR	1795.000	16200.000	1756.000	16630.000	1800.000	16800.000	0.000	0.000	0.000	0.000
NH	4.000	0.050	10980.000	0.070	12321.000	0.025	12437.000	0.160	13730.000	0.000
	CL = 12373									
X1	7.340	33.000	12321.000	12437.000	600.000	1300.000	1650.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	150.000	1795.000	900.000	1790.000	3500.000	1792.000	5000.000	1792.000	6850.000
GR	1791.000	8600.000	1791.000	9500.000	1792.000	9600.000	1792.000	10000.000	1796.000	10580.000
GR	1796.000	12000.000	1796.300	12048.000	1795.800	12125.000	1796.600	12229.000	1795.700	12268.000
GR	1798.000	12321.000	1786.700	12343.000	1786.200	12356.000	1789.500	12371.000	1787.200	12411.000
GR	1796.500	12437.000	1794.100	12463.000	1794.100	12531.000	1794.100	12538.000	1796.500	12548.000
GR	1797.200	12571.000	1795.300	12600.000	1794.200	12626.000	1794.600	12642.000	1795.600	12656.000
GR	1804.400	12726.000	1800.500	12730.000	1804.000	13730.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.300	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING									
	CL = 11490									
X1	7.600	24.000	11410.000	11577.000	1200.000	1350.000	1360.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11441.000	1793.800	11546.000
GR	1803.800	11577.000	1804.300	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11790.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11440.000	1802.300	11440.000
GR	1802.300	11443.500	1793.800	11443.500	1793.800	11474.500	1802.300	11474.500	1802.300	11478.000
GR	1793.800	11478.000	1793.800	11509.000	1802.300	11509.000	1802.300	11512.500	1793.800	11512.500
GR	1793.800	11543.500	1802.300	11543.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.300	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11790.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11439.000	1802.300	11439.000

GR	1802.300	11444.500	1793.900	11444.500	1793.900	11473.500	1802.300	11473.500	1802.300	11479.000
GR	1793.900	11479.000	1793.900	11508.000	1802.300	11508.000	1802.300	11513.500	1793.900	11513.500

GR	1793.900	11542.500	1802.300	11542.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11750.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.611	24.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	9450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11441.000	1793.900	11547.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
NH	6.000	0.040	5800.000	0.070	7700.000	0.040	10500.000	0.120	11640.000	0.025
NH	11930.000	0.160	13620.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 11800									
X1	7.680	32.000	11640.000	11930.000	290.000	220.000	280.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1810.000	400.000	1800.000	1650.000	1799.000	2200.000	1799.000	3750.000	1800.000	4000.000
GR	1802.000	4450.000	1801.000	5800.000	1801.000	6800.000	1801.000	7700.000	1800.000	8070.000
GR	1800.000	8350.000	1797.500	8550.000	1797.500	8700.000	1800.000	9060.000	1799.000	9250.000
GR	1799.000	9400.000	1800.000	9610.000	1804.000	10500.000	1804.400	11000.000	1808.300	11640.000
GR	1808.000	11710.000	1796.000	11760.000	1794.500	11790.000	1794.500	11830.000	1796.000	11840.000
GR	1808.000	11870.000	1809.500	11930.000	1806.500	12200.000	1806.800	12470.000	1808.000	12570.000
GR	1808.000	13100.000	1812.000	13620.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	12418.000	12669.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	3400.000	0.160	12470.000	0.025	12766.000	0.140	13400.000	0.160
NH	14200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 12520									
X1	7.970	34.000	12454.000	12563.000	1750.000	1340.000	1610.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	2.000	1813.000	11000.000	1813.000	11700.000	0.000	0.000	0.000	0.000	0.000
GR	1816.000	500.000	1812.000	1000.000	1810.000	1800.000	1810.000	2400.000	1813.000	3400.000
GR	1811.000	4600.000	1811.000	7500.000	1812.000	8500.000	1810.000	9450.000	1810.000	10000.000
GR	1815.200	12000.000	1816.600	12227.000	1815.600	12313.000	1813.600	12367.000	1815.100	12418.000
GR	1812.800	12442.000	1812.900	12454.000	1812.000	12470.000	1806.500	12503.000	1806.000	12515.000
GR	1806.000	12526.000	1806.700	12540.000	1808.800	12561.000	1812.400	12563.000	1813.700	12597.000
GR	1814.500	12669.000	1813.000	12701.000	1814.000	12736.000	1815.000	12756.000	1816.000	12766.000
GR	1816.700	12794.000	1815.000	13250.000	1816.000	13400.000	1816.000	14200.000	0.000	0.000
NH	6.000	0.040	3800.000	0.060	7800.000	0.050	8941.000	0.030	9014.000	0.050
NH	9204.000	0.140	11140.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE									
	CL = 8980									
X1	8.190	39.000	8941.000	9014.000	1110.000	930.000	1140.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1823.000	300.000	1817.000	1200.000	1816.000	2500.000	1820.000	3800.000	1818.000	4580.000
GR	1819.000	5810.000	1816.000	7030.000	1820.000	7800.000	1820.000	8000.000	1820.000	8600.000
GR	1819.200	8000.000	1819.600	8169.000	1819.400	8408.000	1820.100	8794.000	1820.500	8849.000

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GR	1821.500	8875.000	1820.300	8921.000	1822.600	8927.000	1823.900	8941.000	1812.500	8952.000
GR	1810.600	8975.000	1810.600	8988.000	1813.200	9001.000	1814.100	9010.000	1823.900	9014.000
GR	1820.900	9040.000	1823.500	9062.000	1826.700	9084.000	1826.300	9115.000	1820.800	9150.000
GR	1819.500	9163.000	1821.500	9204.000	1822.000	9255.000	1823.000	9550.000	1823.000	10300.000
GR	1823.000	10530.000	1824.000	10650.000	1824.000	10940.000	1824.500	11140.000	0.000	0.000
GT	1.000	6260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4430.000	0.060	9006.000	0.025	9094.000	0.030	9400.000	0.140
NH	10560.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	LAKE MEAD BLVD BRIDGE									
	CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL									
	CL = 9050									

X1	8.271	23.000	9006.000	9094.000	350.000	300.000	330.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1815.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9030.000	1824.000	9006.000	1814.000	9018.000	1813.700	9050.000	1814.000	9082.000
GR	1822.200	9094.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9900.000
GR	1825.000	10050.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
GT	1.000	5380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4430.000	0.060	9006.000	0.015	9095.000	0.120	9400.000	0.140
NH	10560.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL 8

X1	8.271	48.000	9017.000	9095.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
BT	-4.000	9006.000	1824.000	0.000	9017.000	1824.100	1821.700	9025.000	1823.200	1821.700
BT	0.000	9095.000	1823.200	1821.700	0.000	0.000	0.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1815.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9017.000	1813.700	9025.000
GR	1821.700	9028.300	1813.700	9028.300	1815.700	9034.300	1821.700	9034.300	1821.700	9037.600
GR	1813.700	9037.600	1813.700	9043.600	1821.700	9043.600	1821.700	9047.200	1813.700	9047.200
GR	1813.700	9057.200	1821.700	9057.200	1821.700	9060.000	1813.700	9060.000	1813.700	9070.000
GR	1821.700	9070.000	1821.700	9073.000	1813.700	9073.000	1813.700	9083.000	1821.700	9083.000
GR	1821.700	9086.600	1813.700	9086.600	1813.700	9095.000	1823.200	9095.000	1823.200	9095.000
GR	1822.200	9096.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9900.000
GR	1825.000	10050.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8940.000	9140.000	0.000	0.000	0.000
NC	0.055	0.140	0.315	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CL = 9080

X1	8.310	48.000	9040.000	9116.000	235.000	235.000	235.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-5.000	8940.000	1824.000	0.000	9040.000	1824.100	1822.000	9046.000	1823.200	1822.000
BT	0.000	9116.000	1824.100	1822.000	9120.000	1824.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9040.000	1814.000	9040.000	1814.000	9046.000

GR	1822.000	9046.000	1822.000	9051.300	1814.000	9051.300	1814.000	9055.300	1822.000	9055.300
GR	1822.000	9060.600	1814.000	9060.600	1814.000	9064.600	1822.000	9064.600	1822.000	9070.200
GR	1814.000	9070.200	1814.000	9078.200	1822.000	9078.200	1822.000	9083.000	1814.000	9083.000
GR	1814.000	9091.000	1822.000	9091.000	1822.000	9096.000	1814.000	9096.000	1814.000	9104.000
GR	1822.000	9104.000	1822.000	9109.600	1814.000	9109.600	1814.000	9116.000	1824.000	9116.000
GR	1824.000	9120.000	1826.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
GT	1.000	5520.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8900.000	9270.000	0.000	0.000	0.000
NC	0.055	0.140	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	8.311	23.000	9014.000	9140.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	1814.500	9034.000	1814.000	9075.000
GR	1814.500	9120.000	1824.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.040	2020.300	0.060	3700.000	0.160	5380.000	0.040	7000.000	0.160

NH	7863.000	0.025	8094.000	0.160	11250.000	0.000	0.000	0.000	0.000	0.000
	CL = 8010									
X1	8.610	39.000	7923.000	8054.000	1570.000	1370.000	1560.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	3.000	1830.500	2900.000	1820.000	7400.000	1832.000	7700.000	0.000	0.000	0.000
GR	1832.000	0.000	1830.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.000	5970.000	1827.000	6250.000	1827.000	6730.000	1820.000	6880.000	1825.100	7000.000
GR	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000
GR	1832.700	7754.000	1830.200	7793.000	1820.200	7836.000	1822.800	7863.000	1822.600	7923.000
GR	1829.900	7952.000	1822.700	7970.000	1818.900	8025.000	1820.100	8039.000	1822.100	8062.000
GR	1830.300	8077.000	1832.300	8094.000	1832.300	8135.000	1832.400	8173.000	1832.000	8180.000
GR	1832.000	8710.000	1832.000	9120.000	1832.000	9230.000	1832.000	10070.000	1832.400	10360.000
GR	1833.000	10500.000	1834.000	10750.000	1834.000	11100.000	1836.000	11250.000	0.000	0.000
NH	4.000	0.040	1700.000	0.160	7007.000	0.025	7188.000	0.160	11180.000	0.000
	CL = 7.93									
X1	8.850	49.000	7007.000	7188.000	1370.000	1200.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	1833.300	5000.000	1834.200	5102.000	1832.900	5248.000	1834.600	5315.000
GR	1833.900	5362.000	1834.000	5458.000	1834.200	5626.000	1834.000	5773.000	1833.500	5856.000
GR	1833.700	5977.000	1834.600	6004.000	1834.800	6111.000	1832.700	6220.000	1837.700	6395.000
GR	1837.700	6554.000	1838.100	6827.000	1838.800	6858.000	1839.400	6879.000	1837.500	6900.000
GR	1837.200	6953.000	1837.000	6981.000	1837.600	7007.000	1834.400	7013.000	1833.000	7025.000
GR	1827.300	7031.000	1825.100	7044.000	1824.400	7064.000	1824.400	7099.000	1826.200	7119.000
GR	1825.900	7122.000	1833.500	7134.000	1835.600	7142.000	1837.700	7163.000	1837.800	7188.000
GR	1837.800	7250.000	1838.000	7420.000	1838.000	8170.000	1835.500	8550.000	1825.700	9570.000
GR	1838.000	10080.000	1840.000	10450.000	1842.000	10870.000	1844.000	11180.000	0.000	0.000

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GT	1.000	5450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.340	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CAREY AVE BRIDGE									
	ARCH OPENINGS MODELED AS RCB'S. OK FOR CCE FLOWS, BUT FOR									
	LOWER FLOWS (NOT PRESSURE FLOW) SHOULD CHANGE GR CARDS.									
	CL = 10000									
X1	8.900	35.000	9910.000	10070.000	170.000	360.000	230.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1826.000	9950.000	1825.200	9955.000	1825.200	10020.000	1826.000	10025.000
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.900	50.000	9950.000	10019.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.400
BT	0.000	9988.000	1838.700	1832.400	10019.000	1838.500	1832.400	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000

GR	1838.000	10019.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
ET	0.000	6.100	0.000	0.000	0.000	9890.000	10430.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000
	CL = 10000									
X1	8.910	50.000	9950.000	10018.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	3.000	1840.000	2300.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.800
BT	0.000	9988.000	1838.700	1832.800	10018.000	1838.500	1832.800	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.500	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.600	9950.000	1825.600	9958.000	1832.800	9958.000

GR	1832.800	9965.000	1825.600	9965.000	1825.600	9973.000	1832.800	9973.000	1832.800	9980.000
GR	1825.600	9980.000	1825.600	9988.000	1832.800	9988.000	1832.800	9995.000	1825.600	9995.000
GR	1825.600	10003.000	1832.800	10003.000	1832.800	10010.000	1825.600	10010.000	1825.600	10018.000
GR	1838.000	10018.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
QT	1.000	5520.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9910.000	10900.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.125	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.

X1	8.911	35.000	9945.000	10025.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.500	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1828.000	9945.000	1825.600	9960.000	1825.600	10015.000	1828.000	10025.000
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
QT	1.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7186.000	7361.000	0.000	0.000	0.000
NH	5.000	0.040	2000.000	0.160	7219.000	0.025	7349.000	0.160	8260.000	0.110
NH	10960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 7310									
X1	9.060	32.000	7219.000	7349.000	650.000	830.000	820.000	0.000	0.000	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2000.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	1840.900	5000.000	1840.000	5350.000	1840.000	7110.000
GR	1842.300	7186.000	1840.500	7219.000	1840.700	7238.000	1833.300	7255.000	1828.100	7301.000
GR	1832.100	7323.000	1841.100	7349.000	1841.900	7361.000	1840.300	7375.000	1840.700	7406.000
GR	1840.300	7451.000	1841.000	7670.000	1840.000	8360.000	1841.000	8750.000	1841.200	9140.000
GR	1842.000	9180.000	1842.500	9450.000	1843.100	9900.000	1844.000	10100.000	1846.000	10510.000
GR	1846.000	10700.000	1846.500	10960.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4000.000	0.160	4850.000	0.035	5750.000	0.130	6630.000	0.030
NH	7212.000	0.026	7447.000	0.036	7900.000	0.050	8700.000	0.160	11320.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	6990.000	7900.000	0.000	0.000	0.000
	CL = 7270									
X1	9.300	39.000	7212.000	7447.000	1040.000	1070.000	1250.000	0.000	0.000	0.000

X3	10.000	0.000	1.000	0.000	0.000	7900.000	1846.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	11000.000	1845.000	10880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1846.000	4850.000	1846.800	4950.000	1846.000	5000.000	1846.000	5300.000	1845.700	5430.000
GR	1846.200	5750.000	1843.500	6150.000	1847.000	6990.000	1847.000	7162.000	1847.100	7212.000
GR	1837.800	7232.000	1835.200	7252.000	1834.400	7263.000	1837.800	7291.000	1842.100	7307.000
GR	1841.400	7327.000	1840.400	7346.000	1840.900	7376.000	1841.200	7390.000	1840.200	7407.000
GR	1843.800	7422.000	1844.700	7447.000	1843.400	7468.000	1845.500	7840.000	1846.000	7900.000
GR	1845.500	7980.000	1845.500	8700.000	1845.500	9520.000	1846.000	9760.000	1848.000	10000.000

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GR	1850.000	11400.000	1850.000	11480.000	1851.300	11150.000	1852.000	11320.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	14400.000	16400.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.080	12650.000	0.040	14000.000	0.060	14700.000	0.037	15370.000	0.025
NH	15496.000	0.037	16120.000	0.055	17650.000	0.080	18900.000	0.000	0.000	0.000

LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 15437

X1	9.410	43.000	15370.000	15496.000	840.000	330.000	570.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
X4	3.000	1850.000	9700.000	1850.000	11800.000	1848.500	13410.000	0.000	0.000	0.000
GR	1853.000	9200.000	1849.000	12200.000	1849.000	12650.000	1849.900	12760.000	1849.000	12960.000
GR	1848.500	14000.000	1848.000	14150.000	1847.900	14250.000	1847.500	14700.000	1848.500	14900.000
GR	1847.900	15000.000	1847.900	15065.000	1847.900	15118.000	1847.800	15184.000	1847.900	15242.000
GR	1847.900	15264.000	1847.900	15306.000	1848.000	15352.000	1847.900	15370.000	1840.500	15389.000
GR	1840.500	15417.000	1840.500	15461.000	1845.400	15480.000	1846.500	15496.000	1847.400	15535.000
GR	1847.500	15559.000	1847.200	15579.000	1847.400	15601.000	1847.500	15631.000	1848.900	15676.000
GR	1846.100	15735.000	1848.300	15762.000	1846.100	15790.000	1847.200	15815.000	1848.200	15950.000
GR	1849.500	16120.000	1843.300	16200.000	1849.000	16600.000	1849.000	17400.000	1850.000	17650.000
GR	1850.000	18000.000	1852.000	18280.000	1854.000	18900.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	14400.000	16400.000	0.000	0.000	0.000
NH	8.000	0.080	12650.000	0.040	14000.000	0.060	14700.000	0.037	15370.000	0.015
NH	15496.000	0.037	16120.000	0.055	17650.000	0.080	18900.000	0.000	0.000	0.000
X1	9.411	58.000	15391.000	15459.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
X4	3.000	1850.000	9800.000	1850.000	11800.000	1850.500	12700.000	1849.900	13410.000	0.000
BT	-11.000	15000.000	1849.900	1847.900	15065.000	1849.800	1847.900	15184.000	1850.700	1847.900
BT	0.000	15264.000	1851.300	1847.900	15391.000	1851.400	1847.800	15459.000	1851.400	1847.800
BT	0.000	15559.000	1851.000	1847.500	15676.000	1851.000	1848.900	15735.000	1851.000	1846.100
BT	0.000	15762.000	1851.000	1848.300	15950.000	1851.100	1848.200	0.000	0.000	0.000
GR	1860.000	8700.000	1850.000	12200.000	1850.000	12650.000	1849.900	12760.000	1849.900	12960.000
GR	1848.500	14000.000	1848.900	14150.000	1849.900	14250.000	1849.900	14700.000	1849.900	14900.000
GR	1847.900	15000.000	1847.900	15065.000	1847.900	15118.000	1847.800	15184.000	1847.900	15242.000
GR	1847.900	15264.000	1847.900	15306.000	1848.000	15352.000	1847.900	15370.000	1847.800	15391.000
GR	1840.500	15391.000	1840.500	15401.300	1847.800	15401.000	1847.800	15404.000	1840.500	15404.000
GR	1848.500	15415.000	1847.800	15415.000	1847.800	15418.000	1840.500	15418.000	1840.500	15429.000
GR	1847.800	15429.000	1847.800	15434.000	1840.500	15434.000	1840.500	15445.000	1847.800	15445.000
GR	1847.800	15448.000	1840.500	15448.000	1840.500	15459.000	1847.800	15459.000	1847.400	15535.000
GR	1847.500	15559.000	1847.200	15579.000	1847.400	15601.000	1847.500	15631.000	1848.900	15676.000
GR	1846.100	15735.000	1848.300	15762.000	1846.100	15790.000	1847.200	15815.000	1848.200	15950.000
GR	1849.500	16120.000	1850.100	16200.000	1850.100	16600.000	1850.100	17400.000	1850.100	17650.000
GR	1850.000	18000.000	1852.000	18280.000	1854.000	18900.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	14100.000	15900.000	0.000	0.000	0.000
NH	5.000	0.090	12350.000	0.035	14500.000	0.060	15000.000	0.015	15120.000	0.040
NH	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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CL = 15050

X1	9.430	48.000	15020.000	15087.000	110.000	110.000	110.000	0.000	0.000	0.000

X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.000	1850.100	0.000
X4	7.000	1850.000	9400.000	1850.000	11150.000	1849.900	13620.000	1849.800	14500.000	1849.900
X4	14680.000	1850.700	14750.000	1851.300	14890.000	0.000	0.000	0.000	0.000	0.000
BT	-10.000	15000.000	1851.400	1850.000	15000.000	1851.400	1850.000	15020.000	1851.400	1849.100
BT	0.000	15087.000	1850.100	1849.100	15120.000	1851.000	1851.000	15400.000	1851.800	1851.000
BT	0.000	15500.000	1851.200	1850.000	15600.000	1851.000	1850.000	15750.000	1850.200	1850.000
BT	0.000	16120.000	1850.000	1850.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1860.000	8300.000	1850.000	11750.000	1850.000	12250.000	1850.000	12250.000	1850.000	12250.000
GR	1850.000	12350.000	1850.000	12350.000	1850.000	12970.000	1850.000	13000.000	1849.200	13300.000
GR	1851.400	15000.000	1851.400	15000.000	1851.400	15000.000	1849.200	15020.000	1841.800	15020.000
GR	1841.800	15029.000	1849.100	15029.000	1849.100	15034.000	1841.800	15034.000	1841.800	15043.000
GR	1849.100	15043.000	1849.100	15048.000	1841.800	15048.000	1841.800	15057.000	1849.100	15057.000
GR	1849.100	15064.000	1841.800	15064.000	1841.800	15073.000	1849.100	15073.000	1849.100	15078.000
GR	1841.800	15078.000	1841.800	15087.000	1849.200	15087.000	1849.200	15087.000	1850.000	15100.000
GR	1850.000	15100.000	1851.000	15120.000	1851.000	15400.000	1850.000	15500.000	1850.000	15600.000
GR	1850.200	15750.000	1850.100	16120.000	1850.100	16200.000	1850.100	17200.000	1850.800	17450.000
GR	1851.000	17700.000	1852.200	17950.000	1852.700	18250.000	1854.100	18370.000	1855.200	18630.000
ET	0.000	6.100	0.000	0.000	0.000	14100.000	15900.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.090	12350.000	0.035	14500.000	0.060	15000.000	0.025	15100.000	0.040
NH	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.431	31.000	15000.000	15100.000	5.000	5.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
GR	1860.000	8300.000	1850.000	9400.000	1850.000	9400.000	1850.000	9400.000	1850.000	9400.000
GR	1850.000	11500.000	1849.000	11750.000	1849.000	12250.000	1849.000	12250.000	1849.000	12250.000
GR	1850.000	12350.000	1850.000	12350.000	1850.000	12350.000	1849.500	12450.000	1849.500	13700.000
GR	1849.500	14500.000	1850.000	14400.000	1850.000	15000.000	1841.800	15040.000	1841.800	15070.000
GR	1850.000	15100.000	1851.000	15120.000	1851.000	15400.000	1850.000	15500.000	1850.000	16120.000
GR	1849.500	16200.000	1849.500	17200.000	1850.000	17450.000	1852.000	18150.000	1854.000	18500.000
GR	1854.200	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7280.000	8300.000	0.000	0.000	0.000
NH	6.000	0.080	5000.000	0.060	6675.000	0.035	7300.000	0.060	7655.000	0.027
NH	7845.000	0.060	11257.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 7740									
X1	9.470	87.000	7655.000	7845.000	185.000	185.000	185.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1842.300	7728.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	4200.000	1851.000	4450.000	1850.000	4900.000	1850.000	4900.000	1850.000	4900.000
GR	1851.600	5000.000	1851.400	5059.000	1850.700	5063.000	1850.900	5115.000	1850.400	5147.000
GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000

GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8191.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9503.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&IC	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 6.710

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1784.80 ELREA= 1784.80

6.71	11.50	1780.90	0.00	1780.90	1781.88	0.98	0.00	0.00	1784.80
6400.	0.	6400.	0.	0.	807.	0.	0.	0.	1784.80
0.00	0.00	7.93	0.00	0.000	0.035	0.000	0.000	1769.31	14946.63
0.002612	650.	784.	450.	0	0	0	0.00	88.14	15034.77

FLOW DISTRIBUTION FOR SECNO= 6.71 CWSEL= 1780.90

STA= 14947. 15039.
PER Q= 100.0
AREA= 807.1
VEL= 7.9

CCHV= 0.300 CEHV= 0.500
*SECNO 6.750

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.00 ELREA= 1783.00

LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

6.75	10.99	1781.89	0.00	0.00	1782.26	0.37	0.20	0.18	1783.00
6400.	0.	6400.	0.	0.	1319.	0.	5.	1.	1783.00
0.01	0.00	4.85	0.00	0.070	0.030	0.080	0.000	1770.90	9929.81
0.000511	140.	220.	220.	2	0	0	0.00	140.38	10070.19

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1781.89

STA= 9930. 10072.
PER Q= 100.0
AREA= 1319.4
VEL= 4.9

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&IC	ENDST

*SECNO 6.751

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.00 ELREA= 1783.00

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     6.75     10.95  1781.85      0.00      0.00  1762.31      0.46      0.00      0.04  1783.00
    6400.        .     6400.        0.        0.     1182.        0.        6.        1.     1783.00
     0.01       0.00     5.42      0.00      0.070     0.030     0.080     0.000  1770.90   9929.88
 0.001102        5.        5.        5.         2         0         0      0.00   128.24  10070.12

FLOW DISTRIBUTION FOR SECNO=      6.75          CWSEL=    1781.85

STA=    9930.    10072.
  PER Q=    100.0
   AREA=   1181.9
    VEL=      5.4

*SECNO 6.760

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

3470 ENCROACHMENT STATIONS=    9927.0   10073.0  TYPE=     1  TARGET=     146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1783.20 ELREA=     1783.20

     6.76     10.86  1781.96      0.00      0.00  1782.42      0.46      0.11      0.00  1783.20
    6400.        .     6400.        0.        0.     1170.        0.        6.        1.     1783.20
     0.02       0.00     5.47      0.00      0.070     0.030     0.080     0.000  1771.10   9930.03
 0.001133      100.      100.      100.         2         0         0      0.00   127.93  10069.97

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=    1781.96

STA=    9930.    10072.
  PER Q=    100.0
   AREA=   1170.0
    VEL=      5.5

*SECNO 6.761

3470 ENCROACHMENT STATIONS=    9927.0   10073.0  TYPE=     1  TARGET=     146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1783.20 ELREA=     1783.20

     6.76     11.16  1782.26      0.00      0.00  1782.61      0.35      0.16      0.03  1783.20
    6400.        0.     6400.        0.        0.     1343.        0.       15.        2.     1783.20
     0.03       0.00     4.77      0.00      0.070     0.030     0.080     0.000  1771.10   9929.54
 0.000485       14.       220.      220.         2         0         0      0.00   140.92  10070.46

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=    1782.26

STA=    9930.    10072.
  PER Q=    100.0
   AREA=   1342.6
    VEL=      4.8

*SECNO 6.920

3301 HV CHANGED MORE THAN HVINS
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3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3695 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1790.90

CL = 11373

6.92	7.88	1785.58	1785.58	0.00	1788.56	2.97	1.04	1.31	1791.00
6400.	0.	6400.	0.	0.	462.	0.	32.	4.	1790.90
0.05	0.00	13.84	0.00	0.070	0.030	0.080	0.000	1777.72	11328.66
0.002826	530.	830.	840.	20	15	0	0.00	79.20	11407.85

0
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTP	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.92 CWSEL= 1785.58

STA= 11329. 11410.
PER Q= 100.0
AREA= 462.5
VEL= 13.3

CCHV= 0.100 CEHV= 0.300
*SECNO 7.140

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12370.0 TYPE= 1 TARGET= 1170.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1798.80

CL = 12260

7.14	13.21	1792.41	0.00	0.00	1793.03	0.62	4.23	0.24	1791.00
6400.	666.	5734.	0.	746.	862.	0.	55.	13.	1798.80
0.10	0.89	6.65	0.00	0.070	0.030	0.080	0.000	1779.20	11245.31
0.002056	580.	1200.	1250.	3	0	0	0.00	1070.17	12315.48

0
FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1792.41

STA= 11245. 12077. 12114. 12150. 12369.
PER Q= 6.4 3.1 1.0 89.6
AREA= 534.0 161.3 50.9 862.3
VEL= 0.3 1.2 1.2 6.7

1490 NH CARD USED
*SECNO 7.340

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1798.00 ELREA= 1796.50

CL = 12370

7.34	8.57	1794.07	0.00	0.00	1795.58	1.51	2.29	0.27	1798.00
6400.	0.	6400.	0.	0.	649.	0.	78.	23.	1796.50
0.13	0.00	9.87	0.00	0.070	0.025	0.160	0.000	1785.50	12328.66
0.002419	600.	1050.	1300.	3	0	0	0.00	101.54	12430.20

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1794.07

STA= 12329. 12437.
PER Q= 100.
AREA= 648.6
VEL= 9.9

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING
CL = 11490

7.60	4.74	1798.54	0.00	0.00	1800.52	1.98	4.71	0.23	1803.90
6400.	0.	6400.	0.	0.	567.	0.	97.	26.	1803.80
0.16	0.00	11.23	0.00	0.070	0.025	0.160	0.000	1793.80	11426.45
0.005355	12	1350.	1350.	3	1	0	0.00	134.25	11560.70

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1798.54

STA= 11426. 11577.
PER Q= 100.
AREA= 567.2
VEL= 11.3

1490 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 11280.0 11790.0 TYPE= 1 TARGET= 510.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	4.38	1798.78	1798.78	0.00	1800.98	2.21	0.03	0.12	1803.90
6400.	0.	6400.	0.	0.	537.	0.	97.	26.	1803.80
0.16	0.00	11.92	0.00	0.070	0.025	0.160	0.000	1793.80	11425.22
0.008288	5.	5.	5.	20	12	0	0.00	122.71	11561.93

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1798.78

STA= 11425. 11577.
PER Q= 100.
AREA= 536.3
VEL= 11.9

1490 NH CARD USED
*SECNO 7.610

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11280.0 11790.0 TYPE= 1 TARGET= 510.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	6.42	1800.22	0.00	0.00	1801.63	1.42	0.41	0.24	1803.90
6400.	0.	6400.	0.	0.	670.	0.	98.	26.	1803.80
0.17	0.00	9.55	0.00	0.070	0.025	0.160	0.000	1793.80	11420.67
0.004394	7.	7.	7.	5	0	0	0.00	124.60	11566.27

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1800.22

STA= 11421. 11577.
PER Q= 100.
AREA= 669.3
VEL= 9.6

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.611

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11280.0 11790.0 TYPE= 1 TARGET= 510.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	7.19	1801.09	0.00	0.00	1801.84	0.75	0.01	0.20	1803.90
6400.	0.	6400.	0.	0.	920.	0.	98.	26.	1803.80
0.17	0.00	6.95	0.00	0.070	0.025	0.160	0.000	1793.90	11418.71
0.001243	5.	5.	5.	3	0	0	0.00	150.07	11568.79

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1801.09

STA= 11419. 11577.
PER Q= 100.0
AREA= 920.4
VEL= 7.0

1490 NH CARD USED
*SECNO 7.680

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1808.30 ELREA= 1809.50

CL = 11800

7.68	6.51	1801.11	0.00	0.00	1802.96	1.85	0.57	0.55	1808.30
6400.	0.	6400.	0.	0.	586.	0.	103.	27.	1809.50
0.17	0.00	10.92	0.00	0.070	0.025	0.160	0.000	1754.50	11738.70
0.003886	290.	290.	220.	3	0	0	0.00	114.08	11852.78

FLOW DISTRIBUTION FOR SECNO= 7.68 CWSEL= 1801.11

STA= 11739. 11930.
PER Q= 100.0
AREA= 586.0
VEL= 10.9

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWIC	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 7.970
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12418.0 12669.0 TYPE= 1 TARGET= 251.000

CL = 12520

7.97	7.23	1813.23	1313.23	0.00	1815.52	2.29	6.84	0.13	1812.90
6400.	5.	6375.	21.	6.	524.	9.	124.	32.	1812.40
0.21	0.04	12.16	2.27	0.060	0.025	0.025	0.000	1806.00	12437.47
0.004672	1750.	1610.	1340.	20	8	0	0.00	147.35	12584.82

FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1813.23

STA= 12437. 12454. 12563. 12585.
PER Q= 0.1 99.6 0.3
AREA= 5.6 524.2 9.1
VEL= 0.3 12.2 2.3

1490 NH CARD USED
*SECNO 8.190

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1823.90 ELREA= 1823.90

START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	8.54	1819.14	0.00	0.00	1822.20	3.06	6.45	0.23	1823.90
6400.	0.	6400.	0.	0.	456.	0.	137.	35.	1823.90
0.23	0.00	14.04	0.00	0.060	0.030	0.025	0.000	1810.60	8545.59
0.006993	1110.	1140.	930.	2	0	0	0.00	66.47	9012.06

FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1819.14

STA= 8946. 9014.

PER Q= 100.
AREA= 455.3
VEL= 14.1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.270

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

LAKE MEAD BLVD BRIDGE
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
CL = 9150

8.27	8.24	1821.94	0.00	0.00	1823.62	1.68	1.28	0.14	1824.00
6260.	0.	6260.	0.	0.	602.	0.	141.	35.	1822.20
0.24	0.00	10.40	0.00	0.060	0.025	0.025	0.000	1813.70	9008.47
0.002448	350.	330.	300.	3	8	3	0.00	85.15	9093.62

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1821.94

STA= 9008. 9094.
PER Q= 100.
AREA= 601.8
VEL= 10.4

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	8.13	1821.83	0.00	0.00	1823.77	1.95	0.02	0.13	1824.00
5380.	0.	5380.	0.	0.	480.	0.	141.	35.	1823.20
0.24	0.00	11.20	0.00	0.060	0.015	0.025	0.000	1813.70	9017.00
0.004863	5.	5.	5.	2	0	0	-9.39	75.00	9095.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1821.83

STA= 9017. 9095.

PER G= 100.0
AREA= 480.4
VEL= 11.2

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.27 MAX ELLC= 1822.00

3470 ENCROACHMENT STATIONS= 8940.0 9140.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1824.10 ELREA= 1824.00

CL = 8080

8.31	8.34	1822.34	1821.75	0.00	1825.90	3.56	1.64	0.48	1824.10
5380.	0.	5380.	0.	0.	355.	0.	143.	36.	1824.00
0.25	0.00	15.15	0.00	0.155	0.015	0.140	0.000	1814.00	9040.00
0.010926	235.	235.	235.	5	5	0	-25.80	76.00	9116.00

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1822.34

STA= 9040. 9116.
PER Q= 100.0
AREA= 355.2
VEL= 15.1

CCHV= 0.300 CEHV= 0.500
*SECNO 8.311
3280 CROSS SECTION 8.31 EXTENDED 0.67 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8900.0 9270.0 TYPE= 1 TARGET= 370.000

SECNO / Q / TIME / SLOPE	DEPTH / WLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / ANCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	CLCSS / TLA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
8.31	12.67	1826.67	0.00	0.00	1826.90	0.23	0.00	1.00	1824.10
5520.	69.	5344.	108.	146.	1363.	371.	143.	36.	1824.00
0.25	0.47	3.92	0.29	0.055	0.025	0.140	0.000	1814.00	8900.00
0.000190	5.	5.	5.	3	0	0	0.00	370.00	9270.00

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1826.67

STA= 8900. 894 . 9014. 9140. 9148. 9270.
PER Q= 0.1 1.1 96.8 0.1 1.8
AREA= 26.6 119.6 1363.4 21.3 349.7
VEL= 0.3 0.5 3.9 0.3 0.3

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 8.610

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1832.60 ELREA= 1832.30

CL = 3010

8.61	7.71	1826.61	0.00	0.00	1826.00	1.39	0.75	0.35	1832.60
5520.	0.	5520.	0.	0.	584.	0.	187.	44.	1832.30
0.29	0.00	9.46	0.00	0.058	0.025	0.160	0.000	1818.90	7560.22
0.002808	1570.	1560.	1370.	4	0	0	0.00	110.63	8070.25

FLOW DISTRIBUTION FOR SECNO= 8.61 CWSEL= 1826.61

STA= 7960. 8394.
PER Q= 100.
AREA= 583.7
VEL= 9.5

1490 NH CARD USED
*SECNO 8.850

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.60 ELREA= 1837.00

CL = 7090

8.85	6.42	1831.42	0.00	0.00	1832.20	1.78	4.08	0.12	1837.60
5520.	0.	5520.	0.	0.	516.	0.	203.	47.	1837.80
0.32	0.00	10.70	0.00	0.058	0.025	0.160	0.000	1824.40	7027.72
0.003849	1370.	1250.	1200.	3	0	0	0.00	101.42	7129.14

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCFAR	TCF&IC	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.85 CWSEL= 1830.42

STA= 7028. 7188.
PER Q= 100.0
AREA= 515.6
VEL= 10.7

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

CAREY AVE BRIDGE
ARCH OPENINGS MODELED AS RCB'S. OK FOR CCE FLOWS, BUT FOR
LOWER FLOWS (NOT PRESSURE FLOW) SHOULD CHANGE GR CARDS.

CL = 10000

8.90	6.65	1831.85	0.00	0.00	1833.07	1.21	0.70	0.17	1837.80
5450.	0.	5450.	0.	0.	617.	0.	206.	48.	1838.00
0.33	0.00	8.34	0.00	0.058	0.025	0.160	0.000	1825.20	9930.17
0.002449	170.	230.	360.	3	0	0	0.00	116.76	10046.94

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1831.85

STA= 9930. 10097.
PER Q= 100.
AREA= 616.9
VEL= 8.8

1490 NH CARD USED
*SECNO 8.901

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.105 EGC= 1836.122 WSEL= 1832.186

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.105 EGC= 1836.110 WSEL= 1832.303

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.40

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

8.90	7.20	1832.40	1832.40	0.00	1836.11	3.71	0.02	1.25	1837.80
5450.	0.	5450.	0.	0.	353.	0.	206.	48.	1838.00
0.33	0.00	15.45	0.00	0.099	0.015	0.131	0.003	1825.20	9950.00
0.009185	5.	5.	5.	20	21	0	0.00	49.00	10019.00

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1832.40

STA=	9950.	10019.
PER Q=	100.0	
AREA=	352.8	
VEL=	15.4	

1490 NH CARD USED
*SECNO 8.910

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.800 EGLC= 1838.361 EGC= 1840.919 WSEL= 1839.807

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.800 EGLC= 1838.361 EGC= 1838.365 WSEL= 1832.791

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCHAR	TCHLIC	ENDST

3470 ENCROACHMENT STATIONS= 9890. 10430. TYPE= 1 TARGET= 540.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1838.10 ELREA= 1838.10

CL = 10000

8.91	7.20	1832.80	1832.80	0.00	1838.36	5.56	0.82	0.93	1837.80
5450.	.	5450.	0.	0.	288.	0.	206.	48.	1838.00
0.33	0.00	18.92	0.00	0.022	0.015	0.074	0.000	1825.60	9950.00
0.015562	70.	70.	70.	20	20	0	0.00	40.00	10018.00

0
FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1832.80

STA=	9950.	10018.
PER Q=	100.0	
AREA=	288.3	
VEL=	18.9	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.911

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9910.0 10900.0 TYPE= 1 TARGET= 990.000
Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.

8.91	14.21	1839.81	0.00	0.00	1839.98	0.17	0.00	1.62	1828.00
5520.	535.	4116.	869.	242.	1107.	1544.	206.	48.	1828.00
0.33	2.21	3.72	0.56	0.025	0.025	0.051	0.000	1825.60	9910.00
0.000119	5.	5.	5.	4	0	0	0.00	990.00	10900.00

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1839.81

STA=	9910.	9945.	10025.	10070.	10270.	10430.	10800.	10900.
PER Q=	9.7	74.6	12.7	1.0	0.4	1.0	0.6	
AREA=	241.9	1106.9	306.5	362.3	201.8	466.7	206.2	
VEL=	2.2	3.7	2.3	0.2	0.1	0.1	0.2	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCHAR	TCHLIC	ENDST

1490 NH CARD USED
*SECNO 9.060

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 7186.0 7361.0 TYPE= 1 TARGET= 175.000
CL = 7310

9.06	11.52	1839.62	0.00	0.00	1840.67	1.04	0.25	0.44	1840.50
6400.	.	6400.	0.	0.	780.	0.	241.	58.	1841.10
0.36	0.00	8.20	0.00	0.160	0.025	0.160	0.000	1828.10	7240.45
0.001372	650.	820.	830.	3	0	0	0.00	105.12	7345.57

0
FLOW DISTRIBUTION FOR SECNO= 9.06 CWSEL= 1839.62

STA= 7240. 7349.
PER Q= 100.
AREA= 780.5
VEL= 8.2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.300

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 7900.0 TYPE= 1 TARGET= 7895.999

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1847.10 ELREA= 1844.70

CL = 7270

9.30	8.24	1842.64	1842.64	0.00	1844.20	1.56	3.22	0.16	1847.10
6400.	0.	6400.	0.	0.	638.	0.	261.	63.	1844.70
0.40	0.00	10.33	0.00	0.160	0.026	0.036	0.000	1834.40	7221.60
0.006470	104.	1250.	1070.	4	14	0	0.00	195.56	7417.15

FLOW DISTRIBUTION FOR SECNO= 9.30 CWSEL= 1842.64

STA= 7222. 7447.
PER Q= 100.
AREA= 638.0
VEL= 10.3

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VCL	TIA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTD	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1491 NH CARD USED
*SECNO 9.410

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 14400.0 16400.0 TYPE= 1 TARGET= 2000.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1849.80 ELREA= 1850.10

LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 15430

9.41	5.33	1846.33	1846.33	0.00	1848.56	2.23	3.44	0.34	1847.90
6400.	0.	6400.	0.	0.	534.	0.	269.	65.	1846.50
0.41	0.00	12.00	0.00	0.160	0.025	0.036	0.000	1840.50	15374.04
0.005644	840.	570.	330.	2	15	0	0.00	119.44	15493.48

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1846.33

STA= 15374. 15496.
PER Q= 100.
AREA= 533.5

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     VEL=      12.0

1490 NH CARD USED
*SECNO 5.411

3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 1849.90 MAX ELLC= 1848.90

3685 20 TRIALS ATTEMPTED ▲SEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=   14400.0   16400.0  TYPE=     1  TARGET=    2000.000
1
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    SECNO      DEPTH     C▲SEL     CRIWS     ▲SELK      EG        HV        HL        GLOSS     BANK ELEV
    6          GLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TRA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST

      9.41      10.39  1850.89   1850.89      0.00   1851.44      0.54      0.02      0.51   1847.80
    6400.       1584.     3199.     1617.      841.      394.      806.      269.       65.   1847.80
      0.41       1.88      8.12      2.01     0.042     0.015     0.040     0.000  1840.50 14400.00
 0.002377          5.        5.        5.        20         6         0 -2678.10  2000.00 16400.00
0
 FLOW DISTRIBUTION FOR SECNO=       9.41          CWSEL=    1850.89

 STA=   14400.   14700.   14900.   15000.   15118.   15391.   15459.   15950.   16120.   16400.
   PER Q=     5.6      6.1      9.7      3.1      0.3     50.0      3.4     17.1      4.7
    AREA=   298.4    198.9    199.5    107.9     36.2    394.2    211.6    347.6    246.5
     VEL=     1.2      2.0      3.1      1.9      0.5      8.1      1.0      3.2      1.2

1490 NH CARD USED
*SECNO 5.430

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 1850.00 MAX ELLC= 1851.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347  ENCROACHMENT STATIONS=   14100.0   15900.0  TYPE=     1  TARGET=    1800.000
          CL = 15050
      9.43      9.58  1851.38   1851.38      0.00   1851.86      0.48      0.30      0.02   1849.20
    6400.       2684.     2886.      830.     1031.      371.      383.      274.       65.   1849.20
      0.41       2.60      7.78      2.17     0.041     0.015     0.036     0.000  1841.80 14100.00
 0.003244        110.      110.      110.         2        13         0 -497.86  1782.13 15900.00
0
 FLOW DISTRIBUTION FOR SECNO=       9.43          CWSEL=    1851.38

 STA=   14100.   14500.   14680.   15020.   15087.   15750.   15900.
   PER Q=    31.4      8.1      2.4     45.1      6.2      6.7
    AREA=   621.8    276.1    133.5    371.1    202.1    180.6
     VEL=     3.2      1.9      1.2      7.8      2.0      2.4

 CCHV=    0.300 CEHV=    0.500
1490 NH CARD USED
*SECNO 9.431
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       ANCH      XNR       WTA       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 3470 ENCROACHMENT STATIONS=    14100.0    15900.0  TYPE=      1  TARGET=     1800.000
      9.43      9.91   1851.71      0.00      0.00   1851.94      0.23      0.01      0.07   1850.00
     6400.     1712.     3561.     1127.     1591.      704.     1024.      274.       70.   1850.00
      0.42      1.08      5.06      1.10     0.047     0.025     0.040     0.003   1841.80  14100.00
 0.000552         5.        5.        5.         3         0         0      0.00   1800.00  15900.00
0
 FLOW DISTRIBUTION FOR SECNO=       9.43          CWSEL=    1851.71

 STA=   14100.   14400.   15000.   15100.   15120.   15400.   15500.   15900.
   PER Q=    13.5     13.3     55.6      0.4      2.1      1.5     13.2
    AREA=   567.9   1023.3    703.6     24.1    197.6    120.6    682.2
     VEL=     1.5      0.8      5.1      1.1      3.7      1.0      1.2

 1490 NH CARD USED
 *SECNO 9.470

 3470 ENCROACHMENT STATIONS=     7280.0     8300.0  TYPE=      1  TARGET=     1020.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1852.00 ELREA=      1850.70

          CL = 7740
      9.47      9.45   1851.75      0.00      0.00   1852.20      0.45      0.15      0.11   1852.00
     6400.        .         .      949.         .      935.      752.      285.        75.   1850.70
      0.43      0.00      5.83      1.26     0.054     0.027     0.060     0.000   1842.30   7663.99
 0.001279      185.      185.      185.         3         0         0      0.00    636.00   8300.00
0
 FLOW DISTRIBUTION FOR SECNO=       9.47          CWSEL=    1851.75

 STA=    7664.    7845.    7893.    7955.    7996.    8065.    8129.    8190.    8239.    8253.    8300.
   PER Q=    85.2      2.9      1.5      1.0      1.7      1.8      2.8      2.2      0.5      2.4
    AREA=   935.0     57.5     86.7     57.3     96.5     99.1    124.9    100.4     25.9    104.0
     VEL=     5.8      1.0      1.1      1.1      1.1      1.2      1.4      1.4      1.3      1.5

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 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************

 T1      CORFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
 T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGP
 T3      LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - 500-YEAR

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        5.        0.        0.  0.000000      0.00      0.0       0.  1785.300     0.000

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWIC	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 6.710

6.71	16.00	1785.30	0.00	1780.90	1786.13	0.83	0.00	0.00	1784.80
84000.	33586.	17449.	32965.	15967.	1217.	6784.	0.	0.	1784.80
0.01	2.13	14.34	4.86	0.090	0.035	0.052	0.000	1769.30	5576.00
0.004452	650.	730.	450.	3	0	0	0.00	11179.15	16755.15

FLOW DISTRIBUTION FOR SECNO= 6.71 CWSEL= 1785.30

STA=	5576.	12020.	14365.	14680.	14835.	14910.	14942.	15039.	15167.	15298.	15461.	15640.	16195.
PER Q=	9.1	6.8	9.0	5.9	8.0	1.2	20.8	3.2	3.1	4.9	5.8	17.4	
AREA=	7049.9	3938.6	3259.5	1054.2	543.8	121.4	1216.6	491.8	489.6	688.1	809.8	2456.5	
VEL=	1.1	1.5	2.3	4.7	12.4	8.3	14.3	5.4	5.4	5.9	6.0	6.0	
STA=	16195.	16755.	16755.										
PER Q=	4.3	0.0											
AREA=	1848.3	3.2											
VEL=	2.2	0.4											

CCHV= 0.300 CEHV= 0.500
*SECNO 6.750
LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 1.000

6.75	14.97	1785.87	0.00	1781.89	1786.75	0.87	0.59	0.02	1783.00
84000.	46581.	25219.	12201.	22434.	1890.	6586.	103.	40.	1783.00
0.01	2.08	13.34	1.85	0.070	0.030	0.080	0.000	1770.90	841.13
0.002486	140.	220.	220.	4	0	0	0.00	11558.55	12400.08

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1785.87

STA=	841.	2940.	6700.	7600.	8800.	9250.	9550.	9850.	9928.	10072.	12000.	12400.
PER Q=	6.8	20.3	6.1	4.0	4.9	5.3	7.2	1.1	30.9	12.3	2.2	
AREA=	3639.9	8918.5	2684.1	1584.4	1642.4	1461.6	1761.6	341.0	1890.1	5537.1	1048.9	
VEL=	1.6	1.9	1.9	1.7	2.5	3.0	3.4	2.8	13.3	1.9	1.8	

*SECNO 6.751

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

6.75	16.02	1786.92	0.00	1781.85	1787.00	0.08	0.01	0.24	1783.00
84000.	60650.	7919.	15430.	32016.	1782.	9018.	108.	42.	1783.00
0.01	1.89	4.44	1.71	0.070	0.030	0.080	0.000	1770.90	668.76
0.001396	5.	5.	5.	3	0	0	-125.00	11731.36	12400.11

```
 FLOW DISTRIBUTION FOR SECNO=      6.75          CWSEL=   1786.92

 STA=     669.    2940.    6700.    7800.    8800.    9250.    9550.    9850.    9928.   10072.   12000.   12400.
   PER Q=    10.9     27.6      8.3      6.0      5.6      5.5      7.1      1.2      9.4     15.5      2.9
    AREA=  5922.5  12846.5   3833.3   3029.1   2112.5   1775.0   2075.0    422.5   1782.3   7551.3   1466.8
     VEL=     1.5      1.8      1.8      1.7      2.2      2.6      2.9      2.4      4.4      1.7      1.6

 *SECNO 6.760

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

 3470 ENCROACHMENT STATIONS=       0.0   14050.0  TYPE=     1  TARGET=   14049.999
      6.76    15.96  1787.06     0.00  1781.96  1787.14     0.08     0.14     0.00  1783.20
     84000.   62390.    8224.   15387.   31482.    1799.    8884.     205.       69.  1783.20
       0.02     1.92     4.57     1.73     0.070    0.030    0.080    0.000  1771.10   678.28
  0.001460      100.      100.      100.        2        0        0  -100.01 11721.83 12400.11
0
 FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1787.06

 STA=     678.    2940.    6700.    7800.    8800.    9250.    9550.    9850.    9928.   10072.   12000.   12400.
   PER Q=    10.8     27.3      8.3      5.9      5.6      5.5      7.2      1.2      9.8     15.5      2.9
    AREA=  5791.7  12629.4   3769.8   2971.4   2086.5   1757.7   2057.7    418.0   1759.0   7439.9   1443.7
     VEL=     1.6      1.8      1.8      1.7      2.3      2.6      2.9      2.5      4.6      1.7      1.7

 *SECNO 6.761
      6.76    16.05  1787.15     0.00  1782.26  1787.45     0.30     0.20     0.11  1783.20
     84000.   52355.   18336.   13309.   32316.    2045.    9893.     363.      111.  1783.20
       0.04     1.62     8.97     1.46     0.070    0.030    0.080    0.000  1771.10   663.42
  0.001010      140.      220.      220.        2        0        0     0.00 11736.69 12400.11
0
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1787.15

 STA=     663.    2940.    6700.    7800.    8800.    9250.    9550.    9850.    9928.   10072.   12000.   12400.
   PER Q=     9.5     23.8      7.2      5.2      4.8      4.7      6.1      1.1     21.8     13.4      2.5
    AREA=  5996.1  12963.1   3868.9   3061.5   2127.0   1784.7   2084.7    425.0   2045.1   7613.6   1479.8
     VEL=     1.3      1.5      1.6      1.4      1.9      2.2      2.5      2.1      9.0      1.5      1.4

 *SECNO 6.920
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
          CL = 11370
      6.92    13.46  1791.16  1791.16  1785.58  1791.20     0.05     0.43     0.08  1791.08
     84000.   70429.    4494.    9077.   50839.     932.    8736.    1117.     288.  1790.90
       0.15     1.39     4.82     1.04     0.070    0.030    0.080    0.000  1777.70   815.17
  0.000477      580.      830.      840.       20       12        0     0.00 12784.52 13600.09

 FLOW DISTRIBUTION FOR SECNO=      6.92          CWSEL=   1791.16

 STA=     815.    2000.    3500.    4850.    6450.    9200.    9550.   10200.   11000.   11321.   11410.   12300.   13600.
   PER Q=     4.0      7.2      6.5     11.5     31.4      4.6      9.5      7.6      1.7      5.4      4.1      6.7
    AREA=  3421.5   5485.1   4936.6   7450.8  16931.0   2329.9   4651.9   4405.4   1227.2    932.2   3332.0   5403.8
     VEL=     1.1      1.1      1.1      1.3      1.6      1.6      1.7      1.4      1.2      4.8      1.0      1.0

 CCHL=    0.100 CEHV=    0.300
 *SECNO 7.140
```

3265 DIVIDED FLOW

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1798.80

CL = 1226

7.14	12.52	1791.72	0.00	1792.41	1791.90	0.18	0.65	0.04	1791.00
84000.	77663.	6337.	0.	30241.	754.	0.	1605.	464.	1798.80
0.22	2.57	8.40	0.00	0.070	0.030	0.060	0.000	1779.20	1002.12
0.003228	580.	1200.	1250.	2	0	0	0.00	10743.10	12292.43

FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1791.72

STA=	1002.	2300.	3700.	4600.	6200.	7200.	10450.	12150.	12369.
PER Q=	4.5	12.3	9.1	12.2	10.1	41.6	2.7	7.5	
AREA=	2142.7	4155.6	2896.4	4349.2	3218.3	12084.4	1397.4	754.1	
VEL=	1.8	2.5	2.6	2.3	2.6	2.9	1.6	8.4	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.340
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CL = 12373

7.34	12.50	1798.00	1798.00	1794.07	1798.03	0.03	0.28	0.01	1798.00
84000.	80202.	3634.	163.	63857.	1082.	619.	2484.	625.	1796.50
0.35	1.26	3.36	0.26	0.050	0.025	0.160	0.000	1785.60	449.52
0.000171	630.	1950.	1300.	20	10	0	0.00	12202.01	12651.53

0

FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1798.00

STA=	450.	3500.	5000.	6850.	8600.	9500.	10000.	10980.	12321.	12437.	12652.
PER Q=	21.1	17.8	17.0	18.3	10.7	4.7	4.6	1.3	4.3	0.2	
AREA=	14984.7	10504.8	11105.9	11380.6	6302.9	3051.6	3923.1	2603.5	1081.8	619.3	
VEL=	1.2	1.4	1.3	1.4	1.4	1.3	1.0	0.4	3.4	0.3	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.600

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING

CL = 11490

7.60	10.11	1803.91	1803.91	1798.54	1803.95	0.04	0.22	0.00	1803.90
84000.	79438.	4562.	0.	56702.	1377.	1.	4193.	941.	1803.80
0.57	1.40	3.27	0.02	0.047	0.025	0.160	0.000	1793.80	209.16
0.000186	1210.	1360.	1350.	21	18	0	0.00	10694.45	11600.09

0

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1803.91

STA=	209.	1300.	1600.	3300.	4300.	6250.	6800.	8000.	8290.	8800.	9550.	11410.	11577.
PER Q=	6.1	3.8	25.7	10.4	13.6	3.1	10.9	4.9	7.1	6.7	2.4	5.4	
AREA=	4199.7	1997.5	12594.4	5908.4	9084.0	2562.1	7390.1	2293.4	3603.3	4056.3	3012.8	1376.6	
VEL=	1.2	1.6	1.7	1.5	1.3	1.0	1.2	1.8	1.7	1.4	0.7	3.3	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1491 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

7.60	10.12	1803.92	0.00	1798.78	1803.95	0.03	0.00	0.00	1803.90
840000.	82615.	1384.	0.	56712.	1059.	1.	4200.	942.	1803.80
0.57	1.46	1.31	0.02	0.047	0.160	0.160	0.000	1793.80	209.06
0.000201	5.	5.	5.	0	0	0	-212.35	10695.16	11600.30

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1803.92

STA=	209.	1300.	1600.	3300.	4300.	6250.	6800.	8000.	8290.	8800.	9550.	11410.	11577.
PER Q=	6.2	3.9	26.7	10.8	14.1	3.3	11.3	5.1	7.4	7.0	2.5	1.6	
AREA=	4200.8	1997.8	12596.0	5919.4	9085.9	2562.7	7391.3	2293.7	3603.8	4057.1	2014.0	1055.4	
VEL=	1.2	1.7	1.8	1.5	1.3	1.1	1.3	1.9	1.7	1.4	0.7	1.3	

1491 NH CARD USED
*SECNO 7.610

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

7.61	10.13	1803.93	0.00	1800.22	1803.96	0.03	0.01	0.00	1803.90
840000.	82747.	1253.	0.	56923.	994.	2.	4293.	965.	1803.80
0.58	1.45	1.26	0.02	0.047	0.160	0.160	0.000	1793.80	207.06
0.000200	70.	70.	70.	0	0	0	-212.23	10709.77	11604.56

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1803.93

STA=	207.	1300.	1600.	3300.	4300.	6250.	6800.	8000.	8290.	8800.	9550.	11410.	11577.
PER Q=	6.2	3.9	26.7	10.8	14.2	3.3	11.3	5.1	7.4	7.0	2.6	1.5	
AREA=	4222.6	2003.8	12630.1	5929.4	9124.9	2573.7	7418.3	2299.5	3614.8	4072.1	2037.3	994.3	
VEL=	1.2	1.7	1.8	1.5	1.3	1.1	1.3	1.9	1.7	1.4	0.7	1.3	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.611

3265 DIVIDED FLOW

7.61	10.03	1803.93	0.00	1801.09	1803.97	0.04	0.00	0.00	1803.90
840000.	79549.	4450.	0.	56940.	1372.	2.	4299.	961.	1803.80

0.58	1.40	3.24	0.02	0.047	0.025	0.160	0.000	1753.90	206.90	
0.000184	5.	5.	5.	0	0	0	0.00	10710.93	11604.90	

0
FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1803.93

STA=	207.	1300.	1600.	3300.	4300.	6250.	6800.	8000.	8290.	8800.	9550.	11410.	11577.
PER Q=	6.	3.8	25.7	10.4	13.6	3.1	10.9	4.9	7.1	6.7	2.5	5.3	
AREA=	4224.3	2004.3	12632.8	5931.0	5128.0	2574.6	7417.2	2300.0	3614.8	4073.3	3039.1	1371.7	
VEL=	1.2	1.6	1.7	1.5	1.3	1.0	1.2	1.8	1.7	1.4	0.7	3.2	

1490 NH CARD USED
*SECNO 7.680
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1808.30 ELREA= 1809.50

CL = 11800

7.68	14.15	1808.65	1808.65	1801.11	1808.66	0.02	0.03	0.01	1808.30	
64000.	81443.	2557.	0.	81941.	1677.	0.	4771.	1034.	1809.50	
0.66	0.99	1.52	0.00	0.044	0.025	0.160	0.000	1754.50	568.98	
0.000655	290.	280.	220.	20	14	0	0.00	11326.95	11895.93	

0
FLOW DISTRIBUTION FOR SECNO= 7.68 CWSEL= 1808.65

STA=	569.	1651.	2200.	3750.	4000.	4450.	5800.	6800.	7700.	8070.	8350.	8700.	9060.
PER Q=	4.1	7.2	22.2	3.3	4.4	11.7	5.6	5.0	4.0	3.3	5.7	5.4	
AREA=	4674.5	5031.5	14954.7	2287.0	3441.7	9650.1	7648.2	6883.4	3014.8	2421.5	3651.9	3563.3	
VEL=	0.7	1.2	1.2	1.2	1.1	1.0	0.6	0.6	1.1	1.2	1.3	1.3	

STA=	9060.	9400.	10500.	11640.	11930.
PER Q=	4.6	9.6	0.9	3.0	
AREA=	3185.4	7838.0	3694.8	1677.0	
VEL=	1.2	1.0	0.2	1.5	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 7.970

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CL = 12520

7.97	6.97	1812.97	1812.97	1813.23	1813.61	0.65	0.33	0.19	1812.90	
64000.	75861.	8139.	10.	18238.	495.	4.	6823.	1466.	1812.40	
0.75	4.17	15.37	2.43	0.052	0.025	0.025	0.000	1806.00	878.78	
0.008932	1750.	1610.	1340.	20	9	0	0.00	10220.54	12577.90	

0
FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1812.97

STA=	879.	1800.	2400.	3390.	4600.	7500.	8500.	9450.	10000.	10990.	12454.	12563.	12578.
PER Q=	10.5	15.4	8.0	3.2	25.0	5.3	6.2	9.4	5.3	0.0	9.7	0.0	
AREA=	1634.6	1781.8	1469.9	1163.9	5712.2	1469.7	1871.2	1633.3	1469.9	1.4	495.4	4.2	

VEL= 5.4 7.3 4.6 2.3 3.7 3.0 3.7 4.8 3.0 0.6 16.4 2.4

1490 NH CARD USED
*SECNO 8.190

3265 DIVIDED FLOW

3280 CROSS SECTION 8.19 EXTENDED 1.02 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	13.42	1824.02	1824.02	1819.14	1824.07	0.05	0.86	0.06	1823.90
84000.	80505.	2373.	623.	49388.	796.	1944.	7718.	1727.	1823.90
1.94	1.64	3.61	0.32	0.048	0.030	0.096	0.000	1810.63	300.00
0.000268	1110.	1140.	930.	20	25	0	0.00	10584.38	10948.30

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	ANL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1824.02

STA=	300.	1200.	2500.	3800.	4980.	5810.	7030.	7800.	8408.	8921.	8941.	9014.	10948.
PER Q=	6.6	27.2	18.7	8.4	6.9	13.4	7.4	4.1	3.1	0.0	3.4	0.7	
AREA=	3618.7	9777.0	7827.0	5924.5	4582.2	7955.3	4636.0	2665.5	2075.2	26.2	796.3	1944.2	
VEL=	1.5	2.3	2.0	1.2	1.3	1.4	1.3	1.3	1.2	0.7	3.6	0.3	

1490 NH CARD USED
*SECNO 8.27
3280 CROSS SECTION 8.27 EXTENDED 1.06 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
LAKE MEAD BLVD BRIDGE
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
CL = 9050

8.27	11.36	1825.06	1825.06	1821.94	1825.18	0.11	0.14	0.02	1824.80
84000.	76887.	5877.	1235.	35953.	874.	1056.	8077.	1807.	1822.20
0.58	2.14	6.73	1.17	0.049	0.025	0.039	0.000	1813.70	600.00
0.000656	350.	330.	300.	20	13	0	0.00	9856.77	10456.77

0
FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1825.06

STA=	600.	1300.	2400.	3200.	4000.	5200.	5850.	6770.	7400.	8000.	8650.	9006.	9094.
PER Q=	5.1	21.8	15.8	5.9	8.3	6.7	9.5	8.3	6.2	3.2	0.7	7.0	
AREA=	2143.1	6117.7	4449.2	2449.2	4206.3	3127.5	4426.6	3503.8	2886.9	1990.0	652.9	873.8	
VEL=	2.3	3.3	3.0	2.0	1.7	1.8	1.8	2.0	1.8	1.3	1.0	6.7	
STA=	9094.	10457.											
PER Q=	1.5												
AREA=	1055.5												
VEL=	1.2												

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3280 CROSS SECTION 8.27 EXTENDED 1.11 FEET

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	11.41	1825.11	0.00	1821.83	1825.15	0.08	0.00	0.01	1824.00
84000.	80132.	2545.	1319.	36365.	620.	1118.	8081.	1809.	1823.20
0.96	2.20	4.11	1.18	0.049	0.030	0.040	0.000	1813.70	600.00
0.000688	5.	5.	5.	2	0	0	-116.69	9859.15	10462.04

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1825.11

STA=	600.	1300.	2400.	3200.	4000.	5200.	5850.	6770.	7400.	8000.	8650.	9017.	9095.
PER Q=	5.4	22.6	16.4	6.1	8.7	7.0	9.9	8.6	6.5	3.3	0.8	3.0	
AREA=	2176.6	6170.4	4487.6	2487.6	4263.9	3158.7	4479.7	3534.0	2915.7	2021.2	681.6	620.2	
VEL=	2.1	3.1	3.1	2.1	1.7	1.9	1.9	2.1	1.9	1.4	1.0	4.1	

STA=	9095.	10462.
PER Q=	1.6	
AREA=	1118.4	
VEL=	1.2	

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

CL = 9080

8.31	11.26	1825.26	0.00	1822.34	1825.65	0.39	0.37	0.09	1824.10
84000.	77243.	5521.	1236.	18303.	478.	1135.	8238.	1859.	1824.00
0.99	4.22	11.55	1.09	0.055	0.015	0.140	0.000	1814.00	909.56
0.006557	235.	235.	235.	0	0	0	-125.60	8772.69	9998.14

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1825.26

STA=	910.	2430.	3200.	4000.	5850.	6770.	7800.	8280.	9040.	9116.	9998.
PER Q=	24.2	11.4	5.4	8.1	13.8	24.5	4.9	0.5	6.6	1.5	
AREA=	4395.4	2214.0	1414.0	2529.7	2496.1	3880.5	1086.4	284.8	478.1	1135.4	
VEL=	4.6	4.3	3.2	2.7	4.4	5.3	3.8	1.6	11.5	1.1	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 8.311

3268 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

8.31	11.55	1825.55	1825.55	1826.67	1826.44	0.89	0.02	0.25	1824.10
84000.	64411.	18419.	1170.	20515.	1223.	1379.	8240.	1860.	1824.00
0.99	3.14	15.06	0.85	0.055	0.025	0.140	0.000	1814.00	864.47
0.003245	5.	5.	5.	20	5	0	0.00	8567.33	10048.94

0
FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1825.55

STA=	884.	2400.	3200.	4000.	5850.	6770.	7800.	8280.	9014.	9140.	10045.
PER Q=	19.7	9.4	4.8	7.8	10.7	19.4	4.2	0.6	21.9	1.4	
AREA=	4819.6	2439.7	1639.7	3051.9	2755.7	4171.2	1223.8	413.1	1222.8	1378.8	
VEL=	3.4	3.2	2.5	2.1	3.3	3.9	2.9	1.3	15.1	0.8	

CCHV= 0.100 CEHV= 0.300
1498 NH CARD USED
*SECNO 8.610

3265 DIVIDED FLOW

3280 CROSS SECTION 8.61 EXTENDED 0.65 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CL = 8010

8.61	13.75	1832.65	1832.65	1826.61	1833.03	0.38	3.90	0.05	1832.60
84000.	69222.	14363.	416.	26233.	1376.	1350.	9173.	2200.	1832.30
1.10	2.64	10.44	0.30	0.059	0.025	0.160	0.000	1818.90	0.00
0.001973	157.	1563.	1370.	20	26	0	0.00	10339.85	10417.79

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.61 CWSEL= 1832.65

STA=	0.	2020.	2600.	3700.	5380.	5970.	6250.	6730.	6880.	7000.	7700.	7923.	8094.
PER Q=	24.6	6.8	6.2	7.1	5.5	4.8	16.9	3.2	3.6	3.3	0.1	17.1	
AREA=	5983.4	2559.0	2318.2	6128.1	1562.1	1021.4	2710.9	622.2	611.7	2533.4	191.3	1375.7	
VEL=	3.5	2.2	2.2	1.0	3.2	3.9	5.2	4.3	4.9	1.1	0.6	10.4	

STA=	8094.	10418.
PER Q=	0.5	
AREA=	1389.8	
VEL=	0.3	

1498 NH CARD USED
*SECNO 8.650
3280 CROSS SECTION 8.85 EXTENDED 0.04 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED
CL = 7390

8.85	15.64	1840.04	1840.04	1830.42	1841.30	1.26	3.29	0.27	1837.60	
84000.	44223.	28086.	11687.	22541.	1826.	9820.	10140.	2516.	1837.80	
1.16	1.96	15.38	1.19	0.104	0.025	0.160	0.000	1824.40	0.00	
0.003210	1370.	1250.	1200.	20	12	0	0.00	10458.15	10458.15	

FLOW DISTRIBUTION FOR SECNO= 8.85 CWSEL= 1840.04

STA=	0.	1700.	2550.	4900.	5248.	5626.	5977.	6395.	7007.	7188.	8550.	9570.	10458.
PER Q=	24.4	3.4	6.1	4.1	4.6	4.6	4.0	1.4	33.4	3.8	7.7	2.5	
AREA=	4791.3	2583.9	5281.2	2004.7	2242.2	2174.1	2120.5	1344.8	1825.8	3281.3	4527.6	2010.8	
VEL=	4.3	1.1	1.0	1.7	1.7	1.8	1.6	0.9	15.4	1.0	1.4	1.0	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CAREY AVE BRIDGE
ARCH OPENINGS MODELED AS RCB'S. OK FOR CCE FLOWS, BUT FOR
LOWER FLOWS (NOT PRESSURE FLOW) SHOULD CHANGE GR CARDS.
CL = 10000

8.90	15.70	1840.90	1840.90	1831.85	1842.21	1.31	0.60	0.02	1837.80	
84000.	44521.	29568.	9912.	23199.	1934.	9030.	10317.	2571.	1838.00	
1.17	1.92	15.29	1.10	0.089	0.025	0.143	0.000	1825.20	2755.02	
0.002453	170.	230.	360.	4	5	0	0.00	10423.61	13222.49	

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1840.90

STA=	2755.	4500.	5350.	7700.	8550.	9100.	9870.	9910.	10070.	11770.	12530.	13222.	
PER Q=	26.4	3.6	5.1	6.1	4.7	6.8	0.3	35.2	6.8	3.5	1.5		
AREA=	5487.2	2389.7	5183.9	3945.2	2867.3	2699.2	127.0	1933.6	5507.9	2288.7	1232.9		
VEL=	4.3	1.3	0.8	1.3	1.4	2.1	2.0	15.3	1.3	1.3	1.0		

1490 NH CARD USED
*SECNO 8.901

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.40

8.90	17.31	1842.51	0.00	1832.40	1842.59	0.08	0.01	0.37	1837.80
84000.	63203.	4174.	16623.	34941.	623.	14345.	10322.	2572.	1838.00
1.17	1.81	6.70	1.16	0.086	0.015	0.127	0.000	1825.20	2674.56
0.001278	5.	5.	5.	3	0	0	-488.59	10659.39	13333.95

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1842.51

STA=	2675.	3050.	4500.	5350.	6530.	7700.	8140.	8550.	8850.	9340.	9870.	9950.	10019.
PER Q=	3.9	33.6	4.9	3.3	5.4	3.4	3.7	3.0	5.5	6.0	2.3	5.0	
AREA=	1097.3	7262.7	4257.5	3845.4	5117.8	2623.9	2689.1	2087.6	2974.8	2628.1	356.7	622.6	
VEL=	3.3	3.9	1.0	0.7	0.9	1.1	1.2	1.2	1.6	1.9	5.3	6.7	
STA=	10019.	10270.	11000.	11770.	12530.	13334.							
PER Q=	3.2	3.2	5.2	5.1	2.9								
AREA=	1093.9	3099.9	4241.8	3511.7	2397.7								
VEL=	2.5	1.9	1.2	1.2	1.3								

1490 NH CARD USED
*SECNO 8.910

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

CL = 10000

8.91	17.01	1842.61	0.00	1832.83	1842.68	0.07	0.09	0.00	1837.80	
84000.	64908.	3679.	15413.	35651.	560.	14674.	10403.	2589.	1838.00	
1.18	1.82	6.56	1.05	0.086	0.015	0.141	0.000	1825.60	2669.68	
0.001262	70.	70.	70.	2	0	0	-455.59	10680.39	13350.06	

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1842.61

STA=	2670.	3050.	4500.	5350.	6530.	7700.	8140.	8550.	8850.	9340.	9870.	9950.	10018.	
PER Q=	4.0	34.5	5.1	3.5	5.6	3.5	3.8	3.1	5.7	6.2	2.3	4.4		
AREA=	1134.2	7404.3	4340.5	3960.6	5232.0	2666.8	2725.1	2116.9	3022.7	2679.9	364.5	560.4		
VEL=	3.0	3.9	1.0	0.7	0.9	1.1	1.2	1.2	1.6	1.9	5.4	6.6		
STA=	10018.	10270.	11000.	11770.	12530.	13350.								
PER Q=	3.4	3.3	5.4	4.0	2.3									
AREA=	1122.6	3171.2	4317.0	3535.9	2477.0									
VEL=	2.5	3.9	1.0	0.9	0.8									

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.911
Q25 REDUCED FOR LOB AND ROB BREAKCUTS. ROB RETURNS DOWNSTREAM OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.

8.91	16.84	1842.44	0.00	1839.81	1842.86	0.42	0.01	0.17	1828.00	
84000.	54263.	15466.	14271.	34597.	1317.	14347.	10409.	2591.	1828.00	
1.18	1.57	11.74	0.99	0.085	0.025	0.128	0.000	1825.60	2678.10	
0.000939	5.	5.	5.	2	0	0	0.00	10644.17	13322.27	

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1842.44

STA=	2678.	3050.	4500.	5350.	6980.	7700.	8550.	9100.	9870.	9945.	10025.	10070.	11000.	
PER Q=	3.2	28.1	4.1	4.1	3.2	6.0	4.5	7.7	3.5	18.4	4.0	3.5		
AREA=	1078.6	7160.1	4197.3	5421.4	3375.4	5252.8	3713.4	3883.7	522.3	1317.0	424.7	3935.8		
VEL=	2.5	3.3	0.8	0.6	0.8	1.0	1.0	1.7	5.7	11.7	8.0	0.7		
STA=	11000.	11770.	12530.	13322.										
PER Q=	4.4	3.2	1.8											
AREA=	4187.3	3457.9	2341.2											
VEL=	0.9	0.8	0.7											

1496 NH CARD USED
*SECNO 9.060

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CL = 7510

9.06	16.46	1844.56	1844.56	1839.62	1845.78	1.22	1.16	0.40	1840.50	
84000.	46448.	23187.	14365.	22363.	1399.	9203.	11083.	2755.	1841.10	
1.21	2.08	16.58	1.56	0.100	0.025	0.133	0.000	1828.10	579.45	
0.003408	650.	820.	830.	23	6	0	0.00	9635.06	10214.51	

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELPIA	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.06 CWSEL= 1844.56

STA=	579.	1400.	2000.	2800.	4450.	5250.	7110.	7219.	7349.	8360.	8750.	9180.	10215.
PER Q=	8.4	19.4	5.3	3.5	3.9	14.2	0.5	27.6	7.9	3.8	3.1	2.3	
AREA=	1870.3	2735.2	3246.9	3396.7	2727.7	8023.1	363.3	1358.7	4504.5	1582.9	1467.2	1648.4	
VEL=	3.8	6.0	1.4	0.9	1.2	1.5	1.2	16.6	1.5	2.0	1.8	1.2	

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.300

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 0.0 7900.0 TYPE= 1 TARGET= 7899.999
CL = 7270

9.30	13.78	1848.18	0.00	1842.64	1848.64	0.46	2.78	0.08	1847.10	
84000.	52668.	18774.	12558.	16466.	1875.	5954.	11780.	2976.	1844.70	
1.28	3.20	10.01	2.11	0.043	0.026	0.057	0.000	1834.40	1416.16	
0.003962	1040.	1250.	1370.	1	0	0	0.00	8619.24	10035.40	

FLOW DISTRIBUTION FOR SECNO= 9.30 CWSEL= 1848.18

STA=	1416.	3080.	4000.	5300.	5750.	6990.	7212.	7447.	7840.	8700.	10035.
PER Q=	22.6	15.8	4.8	3.9	14.9	0.7	22.3	7.7	5.2	2.1	
AREA=	5149.2	3382.8	2870.1	1015.2	3789.5	258.8	1875.3	1473.1	1887.2	2553.2	
VEL=	3.7	3.9	1.4	3.2	3.3	2.4	10.0	4.4	2.3	0.7	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.410
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 15430

9.41	10.95	1851.45	1851.45	1846.33	1852.31	0.87	1.68	0.20	1847.90	
84000.	42414.	17613.	23973.	13377.	1175.	6663.	12136.	3111.	1846.50	
1.31	3.17	14.99	3.60	0.050	0.025	0.047	0.000	1840.50	9458.91	
0.003306	840.	570.	330.	20	13	0	0.00	8743.61	18202.52	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELPIA	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1851.45

STA=	9459.	11800.	12650.	13410.	14000.	14250.	14700.	14900.	15065.	15242.	15370.	15496.	15601.
PER Q=	5.1	4.1	8.5	9.1	3.1	6.3	3.9	3.4	4.1	2.9	21.0	3.2	
AREA=	3212.1	1879.6	1832.3	1738.5	829.1	1595.9	645.3	556.2	633.9	450.8	1175.2	444.4	
VEL=	1.3	1.8	3.9	4.4	3.2	3.3	5.1	5.2	5.4	5.3	15.0	6.1	

STA=	15601.	15735.	15950.	16600.	17400.	18203.
PER Q=	3.3	6.0	7.1	6.6	2.4	

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     AREA=     498.3     859.3    1763.7    1957.2    1139.4
      VEL=       5.6       5.8       3.4       2.8       1.8

1490 NH CARD USED
*SECNO 9.411

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 1849.50 MAX ELLC= 1848.50

3680 20 TRIALS ATTEMPTED WSEL,CWSEL
3690 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      9.41     11.16   1851.66   1851.66   1850.89   1852.48      0.82      0.03      0.01   1847.80
     84000.    56759.    7291.   19950.    10429.     412.     4158.    12138.     3112.   1847.80
      1.31      5.44     17.70     4.83      0.054     0.015     0.052     0.000  1840.50   9617.14
 0.016301         5.        5.        5.        20        10         0  -2862.48  8615.59  18232.73

FLOW DISTRIBUTION FOR SECNO=      9.41          CWSEL=   1851.66

STA=    9617.    11800.    12650.    12960.    14000.    14150.    14700.    14900.    15000.    15391.    15459.    16120.    16600.
 PER Q=    13.6       5.6       4.0      26.4       3.5       5.8       3.1       2.3       2.3       8.7       7.6       4.4
  AREA=  3476.7    1413.0     510.8    2560.8     444.3    1019.3     352.5     276.2     375.5     412.0     985.5     773.9
   VEL=     3.3       3.3       6.7       8.6       6.5       4.8       7.5      10.1       5.1      17.7       6.5       4.8
STA=   16600.    17400.    18000.    18233.
 PER Q=     6.9       4.4       3.5
  AREA=  1249.9     954.9     193.4
   VEL=     4.5       3.8       2.1

1490 NH CARD USED
*SECNO 9.430
3280 CROSS SECTION      9.43 EXTENDED      0.35 FEET

3301 HV CHANGED MORE THAN HVINS
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLCSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 1850.00 MAX ELLC= 1851.00

          CL = 15050
      9.43     11.25   1853.05      0.00   1851.38   1853.26      0.21      0.60      0.18   1849.20
     84000.    53760.    4045.    26196.    17774.     482.     7238.    12189.     3134.   1849.20
      1.32      3.02      8.39      3.62      0.053     0.015     0.039     0.000  1841.80   9064.94
 0.002669       110.      110.      110.         2         0         0  -542.91  9185.06  18250.00

FLOW DISTRIBUTION FOR SECNO=      9.43          CWSEL=   1853.05

STA=    9065.    11150.    11750.    12250.    12970.    13300.    13820.    14500.    14890.    15020.    15087.    15600.    16120.
 PER Q=    12.1       3.9       3.3      11.0       6.7      10.9      12.3       3.2       0.7       4.8       3.6       6.5
  AREA=  5840.8    1827.6    1523.0    2193.1    1125.2    1817.9    2173.2    1053.9     219.5     482.3     892.5    1438.4
   VEL=     1.7       1.9       1.8       4.2       5.0       5.1       4.8       2.5       2.6       8.4       3.4       3.8
STA=   16120.    17200.    17700.    18250.
 PER Q=    14.9       4.8       1.3
  AREA=  3181.7    1165.5     540.3
   VEL=     3.9       3.4       2.1

CCHV=   0.300  CEHV=   0.500
1490 NH CARD USED
*SECNO 9.431
      9.43     11.24   1853.04      0.00   1851.71   1853.30      0.26      0.01      0.03   1850.00
```

84000.	47539.	8341.	28150.	19083.	837.	8896.	12192.	3136.	1850.00	
1.32	2.49	9.37	3.16	0.054	0.025	0.040	0.000	1841.80	9066.05	
0.001699	5.	5.	5.	2	0	0	0.00	9265.23	18331.28	

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1853.04

STA=	9066.	11570.	12250.	13700.	14000.	14400.	15000.	15100.	16120.	17200.	17450.	18150.	18331.
PER Q=		11.4	5.8	23.6	5.1	6.1	4.6	5.9	9.9	16.0	3.3	4.2	0.1
AREA=	6682.3	2901.9	5102.0	1060.8	1314.4	1821.5	836.6	2756.6	3798.8	821.5	1425.1	93.9	
VEL=	1.4	1.7	3.9	4.1	3.9	2.1	10.0	3.0	3.5	3.4	2.5	1.0	

1490 NH CARD USED
*SECNO 9.470
3280 CROSS SECTION 9.47 EXTENDED 1.38 FEET

CL = 7740

9.47	11.37	1853.37	0.00	1851.75	1853.75	0.38	0.40	0.06	1852.00
84000.	33259.	12609.	38141.	10595.	1243.	11409.	12302.	3169.	1850.70
1.33	3.14	10.14	3.34	0.055	0.027	0.060	0.000	1842.30	4200.00
0.002823	185.	185.	185.	2	0	0	0.00	6726.88	10526.88

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.47 CWSEL= 1853.37

STA=	4200.	4900.	5360.	5694.	5988.	6214.	6412.	6675.	6862.	7041.	7250.	7655.	7845.
PER Q=		3.9	3.6	3.4	3.6	3.2	3.4	4.5	3.8	3.9	3.4	2.9	15.0
AREA=	1762.5	1253.9	994.9	1010.7	850.0	834.7	1097.2	630.5	624.9	607.5	928.5	1242.9	
VEL=	1.9	2.4	2.8	3.0	3.2	3.4	3.4	5.1	5.2	4.7	2.7	10.1	
STA=	7845.	8190.	8453.	9000.	9530.	10200.	10700.	10927.					
PER Q=		3.7	3.4	7.8	11.7	14.1	4.5	0.2					
AREA=	1083.2	933.1	2064.4	2537.5	3237.5	1397.5	156.0						
VEL=	2.8	3.1	3.2	3.9	3.7	2.7	1.0						

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - LAMB BL

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
6.710	0.00	0.00	0.00	1769.30	6400.00	1780.90	0.00	1781.88	20.12	7.93	807.13	1426.75
6.710	0.00	0.00	0.00	1769.30	84000.00	1785.30	0.00	1786.13	44.52	14.34	23568.15	12589.83

	6.750	220.00	0.00	0.00	1770.90	6400.00	1781.89	0.00	1782.26	5.11	4.85	1319.38	2831.89
	6.750	220.00	0.00	0.00	1770.90	84000.00	1785.87	0.00	1786.75	24.86	13.34	30909.58	16847.45
	6.751	5.00	1783.00	1783.00	1770.90	6400.00	1781.85	0.00	1782.31	11.02	5.42	1181.88	1927.64
	6.751	5.00	1783.00	1783.00	1770.90	84000.00	1786.92	0.00	1787.00	13.96	4.44	42816.80	22479.96
	6.760	100.00	1783.00	1783.20	1771.10	6400.00	1781.96	0.00	1782.42	11.33	5.47	1165.97	1901.19
	6.760	100.00	1783.00	1783.20	1771.10	84000.00	1787.06	0.00	1787.14	14.60	4.57	42164.74	21987.21
	6.761	220.00	0.00	0.00	1771.10	6400.00	1782.26	0.00	1782.61	4.85	4.77	1342.64	2907.26
	6.761	220.00	0.00	0.00	1771.10	84000.00	1787.15	0.00	1787.45	10.10	8.97	43454.61	26426.35
•	6.920	830.00	0.00	0.00	1777.70	6400.00	1785.58	1785.58	1788.56	80.28	13.84	462.46	714.36
*	6.920	830.00	0.00	0.00	1777.70	84000.00	1791.16	1791.16	1791.20	4.77	4.82	60507.33	38457.60
	7.140	1200.00	0.00	0.00	1779.20	6400.00	1792.41	0.00	1793.03	20.56	6.65	1608.47	1411.34
	7.140	1200.00	0.00	0.00	1779.20	84000.00	1791.72	0.00	1791.90	32.28	8.40	30995.39	14785.31
	7.340	1050.00	0.00	0.00	1785.50	6400.00	1794.07	0.00	1795.58	24.19	9.87	648.57	1301.37
*	7.340	1050.00	0.00	0.00	1785.50	84000.00	1798.00	1798.00	1798.03	1.71	3.36	65557.95	64231.41
	7.600	1360.00	0.00	0.00	1793.80	6400.00	1796.54	0.00	1800.52	53.55	11.28	567.18	874.60
*	7.600	1360.00	0.00	0.00	1793.80	84000.00	1803.91	1803.91	1803.95	1.86	3.27	58080.82	61516.27
•	7.601	5.00	1803.80	1803.90	1793.80	6400.00	1796.78	1796.78	1800.98	82.86	11.92	536.79	702.96
	7.601	5.00	1803.80	1803.90	1793.80	84000.00	1803.92	0.00	1803.95	2.01	1.31	57769.16	59210.55
	7.610	70.00	1803.80	1803.90	1793.80	6400.00	1800.22	0.00	1801.63	43.94	9.55	669.83	965.52
	7.610	70.00	1803.80	1803.90	1793.80	84000.00	1803.53	0.00	1803.96	2.00	1.26	57918.95	59454.08

	SECNO	XLCH	ELTRD	ELLC	ELMIN	G	CHSEL	CRILS	EG	10K*S	VCH	AREA	.01K
	7.611	5.00	0.00	0.00	1793.90	6400.00	1801.09	0.00	1801.84	12.43	6.95	920.44	1814.92
	7.611	5.00	0.00	0.00	1793.90	84000.00	1803.93	0.00	1803.97	1.84	3.24	58313.00	61871.31
	7.680	280.00	0.00	0.00	1794.50	6400.00	1801.11	0.00	1802.96	38.86	10.92	585.99	1026.63
*	7.680	280.00	0.00	0.00	1794.50	84000.00	1808.65	1808.65	1808.66	0.55	1.52	83617.80	113520.11
*	7.970	1610.00	0.00	0.00	1806.00	6400.00	1813.23	1813.23	1815.52	46.72	12.16	538.93	936.35
*	7.970	1610.00	0.00	0.00	1806.00	84000.00	1812.97	1812.97	1813.61	89.32	16.37	18797.85	8887.85
	8.190	1140.00	0.00	0.00	1810.60	6400.00	1819.14	0.00	1822.20	69.93	14.04	455.85	765.36
*	8.190	1140.00	0.00	0.00	1810.60	84000.00	1824.02	1824.02	1824.07	2.68	3.61	51828.10	51335.79
	8.270	330.00	0.00	0.00	1813.70	6260.00	1821.94	0.00	1823.62	24.48	10.40	601.80	1265.17
*	8.270	330.00	0.00	0.00	1813.70	84000.00	1825.06	1825.06	1825.18	6.56	6.73	37882.52	32785.22
	8.271	5.00	1823.20	1821.70	1813.70	5380.00	1821.83	0.00	1823.77	48.63	11.20	480.40	771.52
	8.271	5.00	1823.20	1821.70	1813.70	84000.00	1825.11	0.00	1825.19	6.88	4.11	38106.67	32029.45
	8.310	235.00	1823.20	1822.00	1814.00	5380.00	1822.34	1821.75	1825.90	109.26	15.15	355.20	514.78
	8.310	235.00	1823.20	1822.00	1814.00	84000.00	1825.26	0.00	1825.65	65.57	11.55	19916.43	10373.45
	8.311	5.00	0.00	0.00	1814.00	5520.00	1826.67	0.00	1826.90	1.90	3.92	1880.66	4004.66
*	8.311	5.00	0.00	0.00	1814.00	84000.00	1825.55	1825.55	1826.44	32.45	15.06	23116.40	14745.45
	8.610	1560.00	0.00	0.00	1818.90	5520.00	1826.61	0.00	1828.00	28.08	9.46	583.72	1041.74
*	8.610	1560.00	0.00	0.00	1818.90	84000.00	1832.65	1832.65	1833.03	19.73	10.44	28998.09	18909.66
	8.850	1250.00	0.00	0.00	1824.40	5520.00	1838.42	0.00	1839.20	38.45	10.70	515.65	889.73
*	8.850	1250.00	0.00	0.00	1824.40	84000.00	1840.04	1840.04	1841.30	32.10	15.38	34186.98	14826.67
	8.900	230.00	0.00	0.00	1825.20	5450.00	1831.85	0.00	1833.07	24.45	8.84	616.86	1101.36
*	8.900	230.00	0.00	0.00	1825.20	84000.00	1840.90	1840.90	1842.21	24.53	15.29	34162.89	16961.84

*	8.901	5.00	1837.80	1832.40	1825.20	5450.00	1832.40	1832.40	1836.11	91.85	15.45	352.80	568.67
	8.901	5.00	1837.80	1832.40	1825.20	84000.00	1842.51	0.00	1842.59	12.78	6.70	49908.07	23497.33
*	8.910	70.00	1837.80	1832.60	1825.60	5450.00	1832.83	1832.60	1838.36	155.62	18.92	288.00	436.89
	8.910	70.00	1837.80	1832.80	1825.60	84000.00	1842.61	0.00	1842.68	12.62	6.56	50885.44	23645.25
	8.911	5.00	0.00	0.00	1825.60	5520.00	1839.81	0.00	1839.98	1.19	3.72	2892.38	5065.68
	8.911	5.00	0.00	0.00	1825.60	84000.00	1842.44	0.00	1842.86	9.39	11.74	50260.79	27409.96
	9.060	320.00	0.00	0.00	1828.10	6400.00	1839.62	0.00	1840.67	13.72	8.20	780.47	1728.03
*	9.060	320.00	0.00	0.00	1828.10	84000.00	1844.56	1844.56	1845.78	34.08	16.58	32964.70	14388.15
*	9.300	1250.00	0.00	0.00	1834.40	6400.00	1842.64	1842.64	1844.20	64.70	10.03	638.02	795.66
	9.300	1250.00	0.00	0.00	1834.40	84000.00	1848.18	0.00	1848.64	19.62	10.01	24294.49	18962.40
*	9.410	570.00	0.00	0.00	1840.50	6400.00	1846.33	1846.33	1848.56	56.44	12.00	533.53	851.94
*	9.410	570.00	0.00	0.00	1840.50	84000.00	1851.45	1851.45	1852.31	33.08	14.99	21214.72	14604.84

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
*	9.411	5.00	1849.90	1848.90	1840.50	6400.00	1851.89	1851.89	1851.44	23.77	8.12	2040.61	1312.75
*	9.411	5.00	1849.90	1848.90	1840.50	84000.00	1851.66	1851.66	1852.48	163.01	17.70	14998.82	6579.10
*	9.430	110.00	1850.00	1851.00	1841.80	6400.00	1851.38	1851.38	1851.86	32.44	7.78	1785.05	1123.64
	9.430	110.00	1850.00	1851.00	1841.80	84000.00	1853.05	0.00	1853.26	26.69	8.39	25495.06	16258.10
	9.431	5.00	0.00	0.00	1841.80	6400.00	1851.71	0.00	1851.94	5.52	5.06	3319.26	2725.02
	9.431	5.00	0.00	0.00	1841.80	84000.00	1853.04	0.00	1853.30	16.99	9.97	28815.33	20377.25
	9.470	185.00	0.00	0.00	1842.30	6400.00	1851.75	0.00	1852.20	12.79	5.83	1687.23	1789.76
	9.470	185.00	0.00	0.00	1842.30	84000.00	1853.37	0.00	1853.75	28.23	10.14	23247.33	15808.96

LAS VEGAS WASH - LAMB BL

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6.710	6400.00	1781.90	0.00	0.00	0.00	88.14	0.00
	6.710	84000.00	1785.30	4.40	0.00	4.40	11179.15	0.00
	6.750	6400.00	1781.89	0.00	0.99	0.00	140.38	220.00
	6.750	84000.00	1785.87	3.98	0.57	3.98	11558.95	220.00
	6.751	6400.00	1781.85	0.00	-0.04	0.00	128.24	5.00
	6.751	84000.00	1786.92	5.07	1.05	5.07	11731.36	5.00
	6.760	6400.00	1781.96	0.00	0.11	0.00	127.93	100.00
	6.760	84000.00	1787.36	5.10	0.14	5.10	11721.83	100.00
	6.761	6400.00	1782.26	0.00	0.30	0.00	140.92	220.00
	6.761	84000.00	1787.15	4.89	0.09	4.89	11736.69	220.00
*	6.920	6400.00	1785.58	0.00	3.32	0.00	79.20	830.00
*	6.920	84000.00	1791.16	5.58	4.01	5.58	12784.92	830.00
	7.140	6400.00	1792.41	0.00	6.83	0.00	1070.17	1200.00
	7.140	84000.00	1791.72	-0.69	0.56	-0.69	10743.10	1200.00

	7.340	6400.00	1754.37	0.00	1.66	0.00	101.54	1050.00
*	7.340	84000.00	1798.30	3.94	6.28	3.94	12202.01	1050.00
	7.600	6400.00	1798.54	0.00	4.47	0.00	134.25	1360.00
*	7.600	84000.00	1803.91	5.37	5.91	5.37	10694.45	1360.00
*	7.601	6400.00	1798.78	0.00	0.24	0.00	122.71	5.00
	7.601	84000.00	1803.92	5.14	0.01	5.14	10695.16	5.00
	7.610	6400.00	1800.22	0.00	1.44	0.00	124.60	70.00
	7.610	84000.00	1803.93	3.71	0.01	3.71	10709.77	70.00
	7.611	6400.00	1801.09	0.00	0.88	0.00	150.87	5.00
	7.611	84000.00	1803.93	2.84	0.00	2.84	10710.93	5.00
	7.680	6400.00	1801.11	0.00	0.02	0.00	114.08	280.00
*	7.680	84000.00	1808.65	7.54	4.72	7.54	11326.95	280.00
*	7.970	6400.00	1813.23	0.00	12.12	0.00	147.35	1610.00
*	7.970	84000.00	1812.97	-0.26	4.32	-0.26	10220.54	1610.00
	8.190	6400.00	1819.14	0.00	5.91	0.00	66.47	1140.00
*	8.190	84000.00	1824.02	4.88	11.05	4.88	10584.38	1140.00
	8.270	6260.00	1821.94	0.00	2.80	0.00	85.15	330.00
*	8.270	84000.00	1825.06	3.12	1.04	3.12	9856.77	330.00

	SECNO	Q	CMSEL	DIFMSP	DIFMSX	DIFKMS	TOPMID	XLCH
	8.271	5380.00	1821.83	0.00	-0.12	0.00	75.00	5.00
	8.271	84000.00	1825.11	3.28	0.05	3.28	9859.15	5.00
	8.310	5380.00	1822.34	0.00	0.51	0.00	76.00	235.00
	8.310	84000.00	1825.26	2.92	0.15	2.92	8772.69	235.00
	8.311	5520.00	1826.67	0.00	4.33	0.00	370.00	5.00
*	8.311	84000.00	1825.55	-1.12	0.29	-1.12	8967.33	5.00
	8.610	5520.00	1826.61	0.00	-0.06	0.00	110.03	1560.00
*	8.610	84000.00	1832.65	6.04	7.10	6.04	10335.85	1560.00
	8.850	5520.00	1830.42	0.00	3.81	0.00	101.42	1250.00
*	8.850	84000.00	1840.04	9.62	7.39	9.62	10458.15	1250.00
	8.900	5450.00	1831.35	0.00	1.44	0.00	116.76	230.00
*	8.900	84000.00	1840.30	9.05	0.86	9.05	10423.61	230.00
*	8.901	5450.00	1832.40	0.00	0.55	0.00	49.00	5.00
	8.901	84000.00	1842.51	10.11	1.61	10.11	10659.39	5.00
*	8.910	5450.00	1832.80	0.00	0.40	0.00	40.00	70.00
	8.910	84000.00	1842.61	9.81	0.10	9.81	10680.39	70.00
	8.911	5520.00	1839.81	0.00	7.01	0.00	950.00	5.00
	8.911	84000.00	1842.44	2.63	-0.17	2.63	10644.17	5.00
	9.060	6400.00	1839.62	0.00	-0.19	0.00	105.12	820.00
*	9.060	84000.00	1844.56	4.93	2.12	4.93	9635.06	820.00
*	9.300	6400.00	1842.64	0.00	3.01	0.00	195.56	1250.00
	9.300	84000.00	1848.18	5.55	3.62	5.55	8619.24	1250.00
*	9.410	6400.00	1846.33	0.00	3.69	0.00	119.44	570.00

*	9.41[illegible]	84[illegible]	1851.45	5.12	3.26	5.12	8743.61	570.00
*	9.411	6400.00	1850.39	0.00	4.57	0.00	2000.00	5.00
*	9.411	84000.00	1851.66	0.77	0.22	0.77	8615.59	5.00
*	9.430	6400.00	1851.38	0.00	0.49	0.00	1782.13	110.00
	9.430	84000.00	1853.05	1.67	1.39	1.67	9185.06	110.00
	9.431	6400.00	1851.71	0.00	0.33	0.00	1800.00	5.00
	9.431	84000.00	1853.04	1.32	-0.02	1.32	9265.23	5.00
	9.470	6400.00	1851.75	0.00	0.04	0.00	636.00	185.00
	9.470	84000.00	1853.37	1.63	0.34	1.63	6726.88	185.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 6.920 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.920 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.920 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 6.920 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.920 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.920 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.340 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.340 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.340 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.600 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.600 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.600 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.601 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.601 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.601 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.680 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.680 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.680 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.970 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.970 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.970 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 7.970 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.970 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.97[illegible] PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.190 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.190 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.190 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.270 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.270 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.270 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.311 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.311 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.311 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.61[illegible] PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.610 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.610 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=     8.850  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     8.850  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.850  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     8.900  PROFILE= 2  CRITICAL DEPTH ASSUMED
1
   4-MAY-88    11:02:40                                                PAGE   54

 CAUTION  SECNO=     8.900  PROFILE= 2  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=     8.901  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     8.901  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.901  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     8.910  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     8.910  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.910  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.060  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.060  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.060  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.300  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.300  PROFILE= 1  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=     9.410  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.410  PROFILE= 1  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.410  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.410  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.410  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.411  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.411  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.411  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=     9.411  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.411  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.411  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.430  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.430  PROFILE= 1  MINIMUM SPECIFIC ENERGY

1
   4-MAY-88    11:06:34                                                PAGE    1


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************



EOF..
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1*************************************************
*  WATER SURFACE PROFILES                       *
*  VERSION OF NOVEMBER 1976                     *
*  UPDATED AUGUST 1983                          *
*                                               *
*  RUN DATE   5-MAY-88 TIME   11:37:57          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X           XXXXX   XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX              XXXXXXX
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1
5-MAY-88 11:37:58


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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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SPLIT FLOW BEING PERFORMED

SF

TN		BREAKOUT OVER ROB ABOVE LAME									
NS	3	6.76	7.14	-1	0.10	.002					
NG	0	1783.0	830	1790.9	2050	1793.1					
TN		BREAKOUT OVER LOB									
NS	4	7.61	7.97	6.92	.080	.006					
NG	0	1806.0	5	1806.0	300	1808.3	1930	1815.1			
TN		BREAKOUT OVER LOB RIDGE									
NS	3	7.97	8.27	6.92	.050	.006					
NG	0	1815.1	1100	1823.9	1450	1824.0					
TN		BREAKOUT OVER PECOS RD U/S LAKE MEAD									
NS	7	8.270	8.61	6.92	.090	.005					
NG	0	1824	5	1824	230	1826	235	1826	530	1826.4	
NG	760	1827.2	2010	1830.0							
TN		BREAKOUT OVER PECOS RD - LAKE MEAD TO CAREY									
NS	3	8.61	8.50	6.92	.10	.005					
NG	0	1830	1960	1837.0	2090	1839.0					
TN		BREAKOUT OVER PECOS RD - CAREY TO LVE									

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NS      4      8.90       9.43       6.92        .14       .005
NC      0   1639.0        750    1842.5       1980    1848.0      2800   1850.8

T1              WEIR OVER LVB EAST OF PECOS - GOES TO OVERBANK MODEL
WS          2  9.411       9.43       6.92        3.0
WC  11400      1850      12350       1850
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C
I1      CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
I2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC. --  EGP
I3      LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  -50-YEAR

J1  ICHECK      INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
        0.        3.        0.        0.  0.000000      0.00      0.        0.  1784.000      0.000

J2  NPROF     IPLOT     PRFWS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000

GT      4.000   6400.000  13000.000  24000.000  84000.000      0.000      0.000      0.000      0.000      0.000
ET      0.000      0.000      0.000      8.100      8.100  14940.000  15040.000      0.000  15040.000      0.000
NC      0.070      0.080      0.030      0.100      0.300      0.000      0.000      0.000      0.000      0.000
NH      9.000      0.130   4690.000      0.100  13425.000      0.130  14809.000      0.130  14942.000      0.035
NH  15039.000      0.045  16195.000      0.100  16755.000      0.045  21140.000      0.130  22860.000      0.000
X1      6.710     42.300  14942.000  15039.000    650.000    450.000    780.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000   1784.000   1784.000      0.000
X4      2.000   1790.000   5200.000   1785.000   5600.000      0.000      0.000      0.000      0.000      0.000
GR   1796.000   2680.000   1792.000   3960.000   1792.000   4690.000   1784.000   8200.000   1784.000  12020.000
GR   1784.000  13425.000   1780.000  14965.000   1780.000  14680.000   1777.400  14809.000   1777.600  14835.000
GR   1778.500  14910.000   1779.000  14914.000   1784.800  14942.000   1773.000  14956.000   1765.300  14987.000
GR   1769.300  14997.000   1769.300  15012.000   1771.900  15025.000   1784.800  15039.000   1781.900  15040.000
GR   1781.900  15071.000   1781.000  15110.000   1781.300  15136.000   1781.200  15150.000   1781.200  15167.000
GR   1780.000  15195.000   1782.100  15222.000   1782.100  15298.000   1781.800  15387.000   1779.800  15404.000
GR   1779.800  15461.000   1781.500  15472.000   1781.000  15531.000   1780.000  15640.000   1780.000  15710.000
GR   1782.000  16195.000   1782.000  16755.000   1784.000  21140.000   1784.000  21860.000   1788.000  22235.000
GR   1792.000  22575.000   1796.000  22860.000      0.000      0.000      0.000      0.000      0.000      0.000

ET      0.000      0.000      6.100      8.100      8.100   9925.000  10075.000      0.000  10075.000      0.000
NC      0.000      0.000      0.000      0.300      0.500      0.000      0.000      0.000      0.000      0.000
        SPLIT FLOW RUN FOR Q100 AND Q50 - LOB MODELED SEPARATELY
        LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
        Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
        CL = 10000
X1      6.750     22.000   9928.000  10072.000    140.000    220.000    220.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR   1790.000    160.000   1784.000   1150.000   1784.000   2940.000   1783.000   6700.000   1783.500   7000.000
GR   1783.500   7800.000   1784.000   8250.000   1784.000   8800.000   1782.000   8900.000   1782.000   9250.000
GR   1760.000   9550.000   1780.000   5850.000   1783.000   9928.000   1771.400   9947.000   1770.900  10000.000
GR   1771.400  10053.000   1783.000  10072.000   1783.000  12000.000   1783.500  12400.000   1783.500  15600.000
GR   1784.000  15900.000   1788.000  16500.000      0.000      0.000      0.000      0.000      0.000      0.000

ET      0.000      6.100      6.100      8.100      8.100   9925.000  10075.000      0.000  10075.000      0.000
X1      6.751     32.000   9928.000  10072.000      5.000      5.000      0.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
X4      1.000   1771.400  10047.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
BT     -4.000   9928.000   1783.000   1783.000   9947.000   1783.000   1782.000  10053.000   1783.000   1782.000
BT      0.000  10072.000   1783.000   1783.000      0.000      0.000      0.000      0.000      0.000      0.000
GR   1790.000    160.000   1784.000   1150.000   1784.000   2940.000   1783.000   6700.000   1783.500   7000.000
GR   1783.500   7800.000   1784.000   8250.000   1784.000   8800.000   1782.000   8900.000   1782.000   9250.000
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GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1771.400	9953.000
GR	1782.000	9953.000	1782.000	9957.000	1771.400	9957.000	1770.900	9998.000	1782.000	9998.000
GR	1782.000	10002.000	1770.900	10002.000	1771.400	10043.000	1782.000	10043.000	1782.000	10047.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	8.100	9927.000	10072.000	0.000	10075.000	0.000
X1	6.760	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.200	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	8.100	9927.000	10072.000	0.000	10075.000	0.000
X1	6.761	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	1600.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	6250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	8.100	11320.000	11437.000	0.000	11437.000	0.000

CL = 11370
UPSTREAM LOB OVERFLOWS RETURN TO MODEL.

X1	6.920	36.000	11321.000	11410.000	580.000	840.000	830.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1790.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1793.000	680.000	1788.000	1000.000	1788.000	2000.000	1787.000	3500.000	1788.000	4850.000
GR	1785.000	5450.000	1785.000	9200.000	1784.000	9550.000	1784.000	10200.000	1784.000	10200.000
GR	1787.300	11000.000	1787.700	11145.000	1786.500	11169.000	1786.600	11200.000	1787.000	11289.000
GR	1791.000	11321.000	1781.800	11334.000	1777.700	11357.000	1777.700	11366.000	1779.000	11378.000
GR	1781.000	11406.000	1790.900	11410.000	1786.900	11426.000	1790.000	11437.000	1789.900	11504.000
GR	1788.300	11551.000	1788.100	11559.000	1786.100	11578.000	1788.100	11605.000	1788.100	11612.000
GR	1788.600	11622.000	1786.000	12100.000	1786.000	12300.000	1788.000	13600.000	1788.000	16450.000
GR	1792.000	17230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	11200.000	12370.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CL = 12260
Q50 BREAKOUT IN ROB REDUCE DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 ROB BREAKOUT MODELED SEPARATELY.

X1	7.140	31.000	12150.000	12369.000	580.000	1250.000	1200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1600.000	450.000	1791.000	1050.000	1790.000	1500.000	1789.500	2300.000	1788.000	3700.000
GR	1789.000	4600.000	1789.000	9200.000	1788.000	7200.000	1788.000	10450.000	1792.500	11200.000
GR	1791.000	12000.000	1791.000	12114.000	1791.000	12150.000	1787.000	12224.000	1779.200	12255.000
GR	1779.200	12265.000	1782.400	12272.000	1785.600	12280.000	1792.000	12293.000	1792.000	12312.000
GR	1792.800	12369.000	1791.600	12391.000	1793.100	12412.000	1792.800	12524.000	1792.600	12729.000
GR	1791.500	12878.000	1791.800	12931.000	1792.000	12970.000	1794.000	13300.000	1795.000	14000.000
GR	1795.000	15200.000	1796.000	16630.000	1800.000	16800.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	6.100	8.100	0.000	7300.000	0.000	12320.100	0.000	0.000
NH	4.000	0.050	10980.000	0.075	12321.000	0.025	12437.000	0.160	13730.000	0.000

CL = 12370

X1	7.340	33.000	12321.000	12437.000	600.000	1300.000	1050.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	150.000	1795.000	900.000	1790.000	3500.000	1792.000	5000.000	1792.000	6850.000
GR	1791.000	8600.000	1791.000	9500.000	1792.000	9600.000	1792.000	10000.000	1796.000	10980.000
GR	1796.000	12000.000	1796.300	12048.000	1795.800	12125.000	1796.600	12229.000	1795.700	12268.000
GR	1798.000	12321.000	1786.700	12343.000	1786.200	12358.000	1785.500	12371.000	1787.200	12411.000
GR	1796.500	12437.000	1794.100	12463.000	1794.100	12531.000	1794.100	12538.000	1796.900	12548.000
GR	1797.200	12571.000	1795.300	12600.000	1794.200	12626.000	1794.600	12642.000	1799.600	12656.000
GR	1804.400	12726.000	1800.500	12730.000	1804.000	13730.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	11200.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.00	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

OWENS AVENUE BRIDGE - NORMAL BRIDGE RGLINE - 2 FT DEBRIS LOADING
CL = 11490

X1	7.600	24.000	11410.000	11577.000	1200.000	1350.000	1366.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11441.000	1793.800	11546.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000

ET	0.000	0.000	6.100	6.100	0.000	11200.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.601	39.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11440.000	1802.300	11440.000
GR	1802.300	11443.500	1793.800	11443.500	1793.800	11474.500	1802.300	11474.500	1802.300	11478.000
GR	1793.800	11478.000	1793.800	11509.000	1802.300	11509.000	1802.300	11512.500	1793.800	11512.500
GR	1793.800	11543.500	1802.300	11543.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000

ET	0.000	0.000	6.100	6.100	0.000	11200.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000

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GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11439.000	1802.300	11439.000
GR	1802.300	11444.500	1793.900	11444.500	1793.900	11473.500	1802.300	11473.500	1802.300	11479.000
GR	1793.900	11479.000	1793.900	11508.000	1802.300	11508.000	1802.300	11513.500	1793.900	11513.500
GR	1793.900	11542.500	1802.300	11542.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000

ET	0.000	0.000	6.100	6.100	0.000	11200.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.611	24.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11441.000	1793.900	11547.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000

ET	0.000	0.000	6.100	6.100	0.000	11639.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	5800.000	0.070	7700.000	0.040	10500.000	0.120	11640.000	0.025
NH	11930.000	0.160	13620.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CL = 11800

X1	7.680	32.000	11640.000	11930.000	290.000	220.000	280.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1810.000	400.000	1800.000	1650.000	1799.000	2200.000	1799.000	3750.000	1800.000	4000.000
GR	1802.000	4450.000	1801.000	5800.000	1801.000	6800.000	1801.000	7700.000	1800.000	8070.000

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GR    1800.000    8350.000    1797.500    8550.000    1797.500    8700.000    1800.000    9060.000    1799.000    9250.000
GR    1799.000    9400.000    1800.000    9610.000    1804.000   10500.000    1804.400   11000.000    1808.300   11640.000
GR    1806.000   11710.000    1796.000   11760.000    1794.500   11790.000    1794.500   11830.000    1796.000   11840.000
GR    1808.000   11870.000    1809.500   11930.000    1806.500   12200.000    1806.800   12470.000    1808.000   12570.000
GR    1808.000   13100.000    1812.000   13620.000       0.000       0.000       0.000       0.000       0.000       0.000

ET       0.000       0.000       6.100       6.100       0.000   12410.000       0.000       0.000       0.000       0.000
NC       0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
NH       5.000       0.040    3400.000       0.060   12470.000       0.025   12766.000       0.040   13400.000       0.160
NH   14200.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
         CL = 12520
         Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS.  BREAKOUT NOT MODELED.
         Q100 BREAKOUT IN LOB MODELED SEPARATELY.
X1       7.971      34.000   12454.000   12563.000    1750.000    1340.000    1610.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
X4       2.000    1813.000   11000.000    1813.000   11700.000       0.000       0.000       0.000       0.000       0.000
GR    1816.000     500.000    1812.000    1000.000    1810.000    1800.000    1810.000    2400.000    1813.000    3400.000
GR    1811.000    4600.000    1811.000    7500.000    1812.000    8500.000    1810.000    9450.000    1810.000   10000.000
GR    1815.200   12000.000    1816.600   12227.000    1815.600   12313.000    1813.600   12367.000    1815.100   12418.000
GR    1812.800   12442.000    1812.900   12454.000    1812.000   12470.000    1806.500   12503.000    1806.000   12515.000
GR    1806.000   12526.000    1806.700   12540.000    1808.800   12561.000    1812.400   12563.000    1813.700   12597.000
GR    1814.500   12669.000    1813.000   12701.000    1814.000   12736.000    1815.000   12756.000    1816.000   12766.000
GR    1816.700   12794.000    1815.000   13250.000    1816.000   13400.000    1816.000   14200.000       0.000       0.000
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ET       0.000       0.000       6.100       6.100       0.000    8940.000       0.000       0.000       0.000       0.000
NH       6.000       0.040    3800.000       0.060    7800.000       0.050    8941.000       0.030    9014.000       0.050
NH    9204.000       0.140   11140.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
         START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
         CL = 8980
X1       6.199      39.000    8941.000    9014.000    1110.000     930.000    1140.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000    1822.000    1822.000       0.000
GR    1823.000     300.000    1817.000    1200.000    1816.000    2500.000    1820.000    3800.000    1818.000    4980.000
GR    1819.000    5810.000    1816.000    7530.000    1820.000    7800.000    1820.000    8000.000    1820.000    8000.000
GR    1819.200    8000.000    1819.600    8169.000    1819.400    8408.000    1820.100    8794.000    1820.500    8849.000
GR    1821.500    8875.000    1820.300    8921.000    1822.600    8927.000    1823.900    8941.000    1812.500    8952.000
GR    1810.600    8975.000    1810.600    8988.000    1813.200    9001.000    1814.100    9010.000    1823.900    9014.000
GR    1820.900    9040.000    1823.500    9162.000    1826.700    9084.000    1826.300    9115.000    1820.800    9150.000
GR    1819.500    9163.000    1821.500    9204.000    1822.000    9255.000    1823.000    9550.000    1823.000   10300.000
GR    1823.000   10530.000    1824.000   10650.000    1824.000   10940.000    1824.500   11140.000       0.000       0.000

ET       0.000       0.000       6.100       8.100       0.000    9000.000    9290.000    9000.000       0.000       0.000
NH       5.000       0.040    4430.000       0.060    9006.000       0.025    9094.000       0.030    9400.000       0.140
NH   10560.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
         LAKE MEAD BLVD BRIDGE
         Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS.  BREAKOUT NOT MODELED.
         Q100 BREAKOUT IN LOB MODELED SEPARATELY.
         CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
         CL = 9150
X1       8.270      23.000    9006.000    9094.000     350.000     300.000     330.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000    1825.000    1825.000       0.000
X4       3.000    1821.000    8000.000    1823.000    8650.000    1823.000    8850.000       0.000       0.000       0.000
GR    1824.000     600.000    1820.000    1300.000    1819.000    2400.000    1820.000    3200.000    1824.000    4000.000
GR    1822.000    4430.000    1819.500    5200.000    1821.000    5850.000    1819.500    6770.000    1819.500    7400.000
GR    1824.000    9000.000    1824.000    9006.000    1814.000    9018.000    1813.700    9050.000    1814.000    9082.000
GR    1822.200    9094.000    1823.000    9100.000    1823.000    9290.000    1824.000    9400.000    1824.500    9900.000
GR    1825.000   10850.000    1825.000   10450.000    1826.000   10560.000       0.000       0.000       0.000       0.000

QT       1.000    5380.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       0.000       6.100       8.100       0.000    9000.000    9290.000    9000.000       0.000       0.000
NC       0.000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.000
NH       5.000       0.040    4430.000       0.060    9006.000       0.015    9095.000       0.030    9400.000       0.140
NH   10560.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
         Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q
X1       8.271      48.000    9317.000    9095.000       5.000       5.000       5.000       0.000       0.000       0.000
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X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
BT	-4.000	9006.000	1824.000	0.000	9017.000	1824.100	1821.700	9025.000	1823.200	1821.700
BT	0.000	9095.000	1823.200	1821.700	0.000	0.000	0.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1815.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9017.000	1813.700	9025.000
GR	1821.700	9028.300	1813.700	9028.300	1813.700	9034.300	1821.700	9034.300	1821.700	9037.600
GR	1813.700	9037.600	1813.700	9043.600	1821.700	9043.600	1821.700	9047.200	1813.700	9047.200
GR	1813.700	9057.200	1821.700	9057.200	1821.700	9060.000	1813.700	9060.000	1813.700	9070.000
GR	1821.700	9070.000	1821.700	9073.000	1813.700	9073.000	1813.700	9083.000	1821.700	9083.000
GR	1821.700	9086.600	1813.700	9086.600	1813.700	9095.000	1823.200	9095.000	1823.200	9095.000
GR	1822.200	9096.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9500.000

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GR	1825.000	1 951.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	8900.000	9270.000	8900.000	0.000	0.000
NC	0.055	0.140	0.015	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CL = 9080									
X1	8.310	48.000	9040.000	9116.000	235.000	235.000	235.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-5.000	8940.000	1824.000	0.000	9040.000	1824.100	1822.000	9046.000	1823.200	1822.000
BT	0.000	9116.000	1824.100	1822.000	9120.000	1824.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1822.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9040.000	1814.000	9040.000	1814.000	9046.000
GR	1822.000	9046.000	1822.000	9051.300	1814.000	9051.300	1814.000	9055.300	1822.000	9055.300
GR	1822.000	9060.600	1814.000	9060.600	1814.000	9064.600	1822.000	9064.600	1822.000	9070.200
GR	1814.000	9070.200	1814.000	9078.200	1822.000	9078.200	1822.000	9083.000	1814.000	9083.000
GR	1814.000	9091.000	1822.000	9091.000	1822.000	9096.000	1814.000	9096.000	1814.000	9104.000
GR	1822.000	9104.000	1822.000	9109.600	1814.000	9109.600	1814.000	9116.000	1824.000	9116.000
GR	1824.000	9120.000	1826.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
GT	1.000	5520.000	0.100	0.100	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	8900.000	9270.000	8900.000	0.000	0.000
NC	0.055	0.140	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	8.311	23.000	9014.000	9140.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	1814.500	9034.000	1814.000	9075.000
GR	1814.500	9120.000	1824.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	6880.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.040	2020.000	0.060	3700.000	0.160	5380.000	0.040	7000.000	0.160
NH	7863.000	0.025	8094.000	0.160	11250.000	0.000	0.000	0.000	0.000	0.000

CL = 8010
Q50 BREAKOUT OVER PECOS REDUCES D/S FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT OVER PECOS MODELED SEPARATELY.

X1	8.610	39.000	7923.000	8094.000	1570.000	1370.000	1560.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1828.500	1828.500	0.000
X4	3.000	1830.500	2900.000	1830.000	7400.000	1832.000	7700.000	0.000	0.000	0.000
GR	1832.000	0.000	1830.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.000	5970.000	1827.000	6250.000	1827.000	6730.000	1830.000	6880.000	1825.100	7000.000
GR	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000
GR	1832.700	7754.000	1830.200	7793.000	1830.200	7836.000	1832.600	7863.000	1832.600	7923.000
GR	1829.900	7952.000	1822.700	7970.000	1818.900	8025.000	1820.100	8039.000	1822.100	8062.000
GR	1830.300	8077.000	1832.300	8094.000	1832.300	8135.000	1832.400	8173.000	1832.000	8180.000
GR	1832.000	8710.000	1832.000	9180.000	1832.000	9230.000	1832.000	10070.000	1832.400	10360.000

GR	1833.000	10500.000	1834.000	10750.000	1834.000	11100.000	1836.000	11250.000	0.000	0.000

ET	0.000	0.000	6.100	8.100	0.000	4900.000	0.000	4900.000	10080.000	0.000
NH	4.000	0.040	1700.000	0.160	7007.000	0.025	7188.000	0.160	11189.000	0.000
	CL = 7 90									
X1	8.850	49.000	7007.000	7188.000	1370.000	1200.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1834.500	1834.500	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	1833.300	5000.000	1824.200	5102.000	1833.500	5248.000	1834.600	5315.000
GR	1833.900	5362.000	1834.000	5458.000	1824.200	5626.000	1824.000	5773.000	1833.500	5856.000
GR	1833.700	5977.000	1834.600	6004.000	1824.800	6111.000	1833.700	6220.000	1827.700	6395.000
GR	1837.700	6554.000	1838.100	6837.000	1838.800	6858.000	1839.400	6879.000	1837.900	6900.000
GR	1837.200	6953.000	1837.000	6981.000	1827.600	7007.000	1824.400	7013.000	1833.000	7025.000
GR	1827.300	7031.000	1825.100	7044.000	1824.400	7064.000	1824.400	7099.000	1826.200	7119.000
GR	1825.900	7122.000	1833.500	7134.000	1835.600	7142.000	1827.700	7163.000	1827.800	7188.000
GR	1837.800	7250.000	1838.000	7420.000	1838.000	8170.000	1838.500	8550.000	1835.700	9578.000
GR	1836.000	10080.000	1840.000	10450.000	1842.000	10870.000	1844.000	11180.000	0.000	0.000
GT	1.000	5450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	0.000	7700.000	11000.000	7700.000	12530.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9510.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CAREY AVE BRIDGE									
	NORMAL BRIDGE; APPROXIMATION OF ARCH CULVERT.									
	MAY NEED TO MODIFY GR POINTS FOR VERY LOW FLOWS.									
	CL = 10000									
X1	8.900	35.000	9910.000	10070.000	170.000	360.000	230.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1836.500	1836.500	0.000
X4	2.000	1840.000	2803.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1826.000	9950.000	1825.200	9955.000	1825.200	10020.000	1826.000	10025.000
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
ET	0.000	0.000	6.100	8.100	0.000	7700.000	11000.000	7700.000	12530.000	0.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9510.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.901	50.000	9950.000	10019.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.400
BT	0.000	9988.000	1838.700	1832.400	10019.000	1838.500	1832.400	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000

GR	1836.000	10019.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
ET	0.000	0.000	6.100	8.100	0.000	7700.000	11000.000	7700.000	12530.000	0.000

NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9510.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 10000									
X1	8.910	50.000	9950.000	10018.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.800
BT	0.000	9988.000	1838.700	1832.800	10018.000	1838.500	1832.800	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.600	9960.000	1825.600	9958.000	1832.800	9958.000
GR	1832.800	9965.000	1825.600	9965.000	1825.600	9973.000	1832.800	9973.000	1832.800	9980.000
GR	1825.600	9980.000	1825.600	9988.000	1832.800	9988.000	1832.800	9995.000	1825.600	9995.000
GR	1825.600	10003.000	1832.800	10003.000	1832.800	10010.000	1825.600	10010.000	1825.600	10018.000
GR	1838.000	10018.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1833.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
GT	2.000	5520.000	13000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	0.000	7700.000	11000.000	7700.000	12530.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9510.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.									
	Q50 BREAKOUT IN ROB DOES NOT RETURN TO CHANNEL.									
X1	8.911	35.000	9945.000	10025.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1828.000	9945.000	1825.600	9960.000	1825.600	10015.000	1828.000	10025.000
GR	1838.000	10070.000	1833.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
GT	1.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	0.000	4850.000	7361.000	4850.000	8750.000	0.000
NH	5.000	0.040	2000.000	0.160	7219.000	0.025	7349.000	0.160	8360.000	0.110
NH	10960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	CL = 7310									
X1	9.060	32.000	7219.000	7349.000	650.000	830.000	820.000	0.000	0.000	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2800.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	1840.900	5000.000	1840.000	5350.000	1840.000	7110.000
GR	1842.300	7186.000	1840.500	7219.000	1840.700	7238.000	1832.300	7255.000	1828.100	7301.000
GR	1832.100	7328.000	1841.100	7349.000	1841.900	7361.000	1840.300	7375.000	1840.700	7406.000
GR	1840.300	7451.000	1840.000	7670.000	1840.000	8360.000	1841.000	8750.000	1841.200	9140.000
GR	1842.000	9181.000	1842.500	9450.000	1843.100	9900.000	1844.000	10100.000	1846.000	10510.000
GR	1846.000	10700.000	1846.500	10960.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	4000.000	0.160	4850.000	0.025	5750.000	0.120	6620.000	0.030
NH	7212.000	0.026	7447.000	0.036	7500.000	0.050	8700.000	0.160	11320.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	4850.000	7500.000	0.000	0.000	0.000
	CL = 7270									
X1	9.300	39.000	7212.000	7447.000	1040.000	1070.000	1250.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	1000.000	1845.000	1880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1848.000	4850.000	1846.800	4950.000	1846.000	5000.000	1846.000	5300.000	1845.700	5430.000
GR	1846.200	5750.000	1843.500	6150.000	1847.000	6990.000	1847.000	7162.000	1847.100	7212.000

GR	1837.800	7232.000	1835.200	7252.000	1834.400	7263.000	1837.800	7291.000	1842.100	7307.000
GR	1841.400	7327.000	1840.400	7346.000	1840.900	7376.000	1841.200	7390.000	1840.200	7407.000
GR	1843.800	7422.000	1844.700	7447.000	1843.400	7468.000	1845.500	7840.000	1846.000	7900.000
GR	1845.500	7980.000	1845.500	8700.000	1845.500	9520.000	1846.000	9760.000	1848.000	10000.000
GR	1850.000	1 400.000	1850.000	11080.000	1851.300	11150.000	1852.000	11320.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	12700.000	16400.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.080	12650.000	0.040	14000.000	0.060	14700.000	0.037	15370.000	0.025
NH	15496.000	0.037	16120.000	0.055	17650.000	0.080	18900.000	0.000	0.000	0.000

LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 5430

X1	9.410	43.000	15370.000	15456.000	840.000	330.000	570.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
X4	3.000	1850.000	9700.000	1850.000	11800.000	1848.500	13410.000	0.000	0.000	0.000
GR	1853.000	9200.000	1849.000	12200.000	1849.000	12650.000	1849.900	12760.000	1849.000	12960.000
GR	1848.500	14000.000	1848.000	14150.000	1847.900	14250.000	1847.900	14700.000	1848.500	14900.000
GR	1847.900	15090.000	1847.900	15065.000	1847.900	15118.000	1847.800	15184.000	1847.900	15242.000
GR	1847.900	15264.000	1847.900	15306.000	1848.000	15352.000	1847.900	15370.000	1840.500	15389.000
GR	1840.500	15417.000	1840.500	15461.000	1845.400	15480.000	1846.500	15496.000	1847.400	15535.000
GR	1847.500	15559.000	1847.200	15579.000	1847.400	15601.000	1847.500	15631.000	1848.900	15676.000
GR	1846.100	15735.000	1848.300	15762.000	1846.100	15790.000	1847.200	15815.000	1848.200	15950.000
GR	1849.500	16120.000	1848.300	16200.000	1845.000	16600.000	1849.000	17400.000	1850.000	17650.000
GR	1850.000	18000.000	1852.000	18280.000	1854.000	18900.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	12700.000	16400.000	0.000	0.000	0.000
NH	8.000	0.080	12650.000	0.040	14000.000	0.060	14700.000	0.037	15370.000	0.015
NH	15496.000	0.037	16120.000	0.055	17650.000	0.080	18900.000	0.000	0.000	0.000

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X1	9.411	58.000	15391.000	15459.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
X4	3.000	1850.000	9800.000	1850.000	11800.000	1850.500	12700.000	1849.900	13410.000	0.000
BT	-11.000	15000.000	1849.900	1847.900	15065.000	1849.900	1847.900	15184.000	1850.700	1847.900
BT	0.000	15264.000	1851.300	1847.900	15291.000	1851.400	1847.800	15459.000	1851.400	1847.800
BT	0.000	15559.000	1851.000	1847.500	15676.000	1851.000	1848.900	15735.000	1851.000	1846.100
BT	0.000	15762.000	1851.000	1848.300	15950.000	1851.100	1848.200	0.000	0.000	0.000
GR	1860.000	8700.000	1850.000	12200.000	1850.000	12650.000	1849.900	12760.000	1849.900	12960.000
GR	1848.500	14000.000	1848.900	14150.000	1849.900	14250.000	1849.900	14700.000	1849.900	14900.000
GR	1847.900	15090.000	1847.900	15065.000	1847.900	15118.000	1847.800	15184.000	1847.900	15242.000
GR	1847.900	15264.000	1847.900	15306.000	1848.000	15352.000	1847.900	15370.000	1847.800	15391.000
GR	1840.500	15391.000	1840.500	15401.000	1847.800	15401.000	1847.800	15404.000	1840.500	15404.000
GR	1840.500	15415.000	1847.800	15415.000	1847.800	15418.000	1840.500	15418.000	1840.500	15429.000
GR	1847.800	15429.000	1847.800	15434.000	1840.500	15434.000	1840.500	15445.000	1847.800	15445.000
GR	1847.800	15448.000	1840.500	15448.000	1840.500	15459.000	1847.800	15459.000	1847.400	15535.000
GR	1847.500	15559.000	1847.200	15579.000	1847.400	15601.000	1847.500	15631.000	1848.900	15676.000
GR	1846.100	15735.000	1848.300	15762.000	1846.100	15790.000	1847.200	15815.000	1848.200	15950.000
GR	1849.500	16120.000	1850.100	16200.000	1850.100	16600.000	1850.100	17400.000	1850.100	17650.000
GR	1850.000	18000.000	1852.000	18280.000	1854.000	18900.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	12350.000	15900.000	0.000	0.000	0.000
NH	5.000	0.090	12350.000	0.035	14500.000	0.060	15000.000	0.015	15120.000	0.040
NH	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SPLIT FLOW MODELED AS WEIR FLOW OVER LVB; WEIR LENGTH LIMITED TO
APPROX 1000 FT BY EFFECTIVE FLOW EXPANSION FROM 9.47.
CL = 5050

X1	9.430	48.000	15020.000	15087.000	110.000	110.000	110.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.000	1850.100	0.000
X4	7.000	1850.000	9400.000	1850.000	11150.000	1849.900	13820.000	1849.800	14500.000	1849.900
X4	14680.000	1850.700	14750.000	1851.300	14890.000	0.000	0.000	0.000	0.000	0.000
BT	-10.000	15000.000	1851.400	1850.000	15000.000	1851.400	1850.000	15020.000	1851.400	1849.100
BT	0.000	15087.000	1850.100	1849.100	15120.000	1851.000	1851.000	15400.000	1851.800	1851.000
BT	0.000	15500.000	1851.200	1850.000	15600.000	1851.000	1850.000	15750.000	1850.200	1850.000
BT	0.000	16120.000	1850.000	1850.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	1860.000	8300.000	1850.000	11750.000	1850.000	12250.000	1850.000	12250.000	1850.000	12250.000
GR	1850.000	12350.000	1850.000	12350.000	1850.000	12970.000	1850.000	13000.000	1849.200	13300.000
GR	1851.400	15000.000	1851.400	15000.000	1851.400	15000.000	1849.200	15020.000	1841.800	15020.000
GR	1841.800	15029.000	1849.100	15029.000	1849.100	15048.000	1841.800	15034.000	1841.800	15043.000
GR	1849.100	15043.000	1849.100	15048.000	1841.800	15048.000	1841.800	15057.000	1849.100	15057.000
GR	1849.100	15064.000	1841.800	15064.000	1841.800	15073.000	1849.100	15073.000	1849.100	15078.000
GR	1841.800	15073.000	1841.800	15087.000	1849.200	15087.000	1849.200	15087.000	1850.000	15100.000
GR	1850.000	15100.000	1851.000	15120.000	1851.000	15400.000	1850.000	15500.000	1850.000	15600.000
GR	1850.200	15750.000	1850.100	16120.000	1850.100	16200.000	1850.100	17200.000	1850.800	17450.000
GR	1851.000	17700.000	1852.200	17950.000	1852.700	18250.000	1854.100	18370.000	1855.200	18630.000
ET	0.000	6.100	6.100	6.100	0.000	12350.000	15900.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.390	12350.000	0.035	14500.000	0.060	15000.000	0.025	15100.000	0.040
NH	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.431	31.000	15000.000	15100.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
GR	1860.000	8300.000	1850.000	9400.000	1850.000	9400.000	1850.000	9400.000	1850.000	9400.000
GR	1850.000	11500.000	1849.000	11750.000	1849.000	12250.000	1849.000	12250.000	1849.000	12250.000
GR	1850.000	12350.000	1850.000	12350.000	1850.000	12350.000	1849.500	12450.000	1849.500	13700.000

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GR	1849.500	14000.000	1850.000	14400.000	1850.000	15000.000	1841.800	15040.000	1841.800	15070.000
GR	1850.000	15100.000	1851.000	15120.000	1851.000	15400.000	1850.000	15500.000	1850.000	16120.000
GR	1849.500	16200.000	1849.500	17200.000	1850.000	17450.000	1852.000	18150.000	1854.000	18500.000
GR	1854.200	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.100	6.100	6.100	0.000	4940.000	8521.000	0.000	0.000	0.000
NH	6.000	0.080	5000.000	0.060	6675.000	0.035	7300.000	0.060	7655.000	0.027
NH	7645.000	0.060	11250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 7740									
X1	9.470	37.000	7655.000	7845.000	185.000	185.000	185.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	2.000	1852.200	4940.000	1842.300	7729.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	4200.000	1851.000	4450.000	1852.500	4900.000	1852.500	4900.000	1852.500	4900.000
GR	1851.600	5000.000	1851.400	5059.000	1850.700	5063.000	1850.900	5115.000	1850.400	5147.000
GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1845.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNC	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	OLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T%A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300

1490 NH CARD USED
*SECNO 6.710

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1784.00 ELREA= 1784.00

6.71	14.70	1784.00	0.00	1784.00	1785.79	1.79	0.00	0.00	1784.80
11724.	0.	11724.	0.	0.	1091.	0.	0.	0.	1784.80
0.00	0.00	10.74	0.00	0.000	0.035	0.000	0.000	1769.30	14942.95
0.002801	650.	780.	450.	0	3	0	0.00	95.18	15038.13

FLOW DISTRIBUTION FOR SECNO= 6.71 CWSEL= 1784.00

STA= 14943. 15039.
PER Q= 100.0
AREA= 1091.3
VEL= 10.7

CCHV= 0.300 CEHV= 0.500
*SECNO 6.750

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9925.0 10075.0 TYPE= 1 TARGET= 150.000
SPLIT FLOW RUN FOR Q100 AND Q50 - LOB MODELED SEPARATELY
LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

6.75	14.88	1785.78	0.00	1785.78	1786.38	0.60	0.23	0.36	1783.00
11724.	5.	11714.	5.	5.	1876.	8.	8.	1.	1783.00
0.01	0.64	6.24	0.56	0.070	0.030	0.080	0.000	1770.50	9925.00
0.000550	140.	220.	220.	2	0	0	0.00	150.00	10075.00

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1785.78

STA= 9925. 9928. 10072. 10075.
PER Q= 0.1 99.9 0.0
AREA= 8.5 1876.3 8.3
VEL= 0.6 6.2 0.6

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	WOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.751

3371 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

3470 ENCROACHMENT STATIONS= 9925.0 10075.0 TYPE= 1 TARGET= 150.000

6.75	14.77	1785.67	0.00	1785.67	1786.50	0.82	0.01	0.11	1783.00
11724.	14.	11697.	12.	6.	1603.	8.	8.	1.	1783.00
0.01	1.76	7.30	1.54	0.070	0.030	0.080	0.000	1770.50	9925.00
0.004337	5.	5.	5.	2	0	0	-125.00	150.00	10075.00

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1785.67

STA= 9925. 9928. 10072. 10075.
PER Q= 0.1 99.8 0.1
AREA= 8.2 1603.0 8.0
VEL= 1.8 7.3 1.5

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*SECNO 6.760

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

3470 ENCROACHMENT STATIONS=    9927.0    10073.0  TYPE=     1  TARGET=     146.000
      6.76     15.06   1786.16      0.00  1786.16  1786.92      0.77      0.41      0.02  1783.20
     11724.       3.     11718.        3.        3.     1669.        3.       12.       1.    1783.20
       0.01      1.08       7.82      0.94      0.070     0.030     0.080     0.000  1771.10  9527.00
  0.003805       100.       100.       100.         2         0         0   -100.01   146.00 10073.00

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1786.16

STA=    9927.     9928.    10072.    10073.
  PER Q=          0.0       99.9       0.0
   AREA=          3.1     1669.3       3.0
    VEL=          1.1        7.0       0.9

*SECNO 6.761

3470 ENCROACHMENT STATIONS=    9927.0    10073.0  TYPE=     1  TARGET=     146.000
      6.76     15.56   1786.66      0.00  1786.66  1787.21      0.55      0.22      0.07  1783.20
     11724.       1.     11721.        3.        3.     1975.       21.        2.    1783.20
       0.02      0.39       5.93      0.34      0.070     0.030     0.080     0.000  1771.10  9527.00
  0.000463       140.       220.       220.         2         0         0      0.00   146.00 10073.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   6         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1786.66

STA=    9927.     9928.    10072.    10073.
  PER Q=          0.0      100.0       0.0
   AREA=          3.5     1975.4       3.5
    VEL=          0.4        5.9       0.3

*SECNO 6.920

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=   11320.0   11437.0  TYPE=     1  TARGET=     117.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1791.00 ELREA=     1790.90

          CL = 11370
          UPSTREAM LOB OVERFLOWS RETURN TO MODEL.
      6.92     10.93   1788.63   1788.63   1788.63   1792.84      4.20      0.98      1.63  1791.00
     11724.       0.     11724.        0.        0.        0.     713.        0.       46.       4.    1790.90
       0.04      0.00      16.45      0.00      0.070     0.030     0.080     0.000  1777.70 11324.35
  0.007259       580.       830.       840.        20        15         0      0.00    84.74 11409.08

FLOW DISTRIBUTION FOR SECNO=      6.92          CWSEL=   1788.63

STA=   11324.    11410.
  PER Q=         100.0
   AREA=         712.5
    VEL=          16.5
```

CCHV= 0.100 CEHV= 0.300
*SECNO 7.140

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12370.0 TYPE= 1 TARGET= 1170.000
CL = 12263
Q50 BREAKOUT IN ROB REDUCE DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.

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Q100 ROB BREAKOUT MODELED SEPARATELY.

7.14	15.72	1794.92	0.00	1794.92	1795.12	0.20	1.88	0.40	1791.00	
10136.	3857.	6278.	1.	3125.	1411.	2.	96.	14.	1792.80	
0.13	1.23	4.45	0.38	0.070	0.030	0.080	0.000	1779.20	11200.00	
0.000688	580.	1200.	1250.	4	0	0	0.00	1170.00	12370.00	

FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1794.92

STA=	11200.	12000.	12114.	12150.	12369.	12370.
PER Q=	30.3	6.1	1.9	61.5	0.0	
AREA=	2536.7	447.0	141.2	1411.2	2.1	
VEL=	1.2	1.4	1.4	4.4	0.4	

1496 NH CARD USED
*SECNO 7.340

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7300.0 13730.0 TYPE= 1 TARGET= -7300.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1798.00 ELREA= 1796.50

CL = 12370

7.34	8.97	1794.47	1794.47	1794.44	1797.82	3.35	1.42	0.94	1798.00	
10136.	0.	10136.	0.	0.	690.	0.	143.	25.	1796.50	
0.15	0.00	14.69	0.00	0.052	0.025	0.160	0.000	1785.50	12327.87	
0.005063	600.	1050.	1300.	20	11	0	0.00	103.47	12431.33	

0
FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1794.47

STA=	12328.	12437.
PER Q=	100.0	
AREA=	690.1	
VEL=	14.7	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.600

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING
CL = 11490

7.60	7.54	1801.44	0.00	1801.41	1803.09	1.66	4.76	0.51	1803.90
10136.	0.	10136.	0.	0.	982.	0.	169.	29.	1803.80
0.19	0.00	10.32	0.00	0.052	0.025	0.160	0.000	1793.80	11417.56
0.002564	1200.	1360.	1350.	3	0	0	0.00	182.11	11569.67

FLOW DISTRIBUTION FOR SECNO= 7.60 CHSEL= 1801.44

STA= 11418. 11577.
PER Q= 100.0
AREA= 981.7
VEL= 10.3

1490 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.87 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	7.37	1801.17	0.00	1801.14	1803.39	2.22	0.02	0.28	1803.90
10136.	0.	10136.	0.	0.	849.	0.	170.	29.	1803.80
0.19	0.00	11.94	0.00	0.052	0.026	0.160	0.000	1793.80	11418.08
0.005817	5.	5.	5.	2	0	0	0.00	137.05	11569.13

FLOW DISTRIBUTION FOR SECNO= 7.60 CHSEL= 1801.17

STA= 11418. 11577.
PER Q= 100.0
AREA= 846.6
VEL= 11.9

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SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TAA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.610

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	7.77	1801.57	0.00	1801.54	1803.81	2.24	.41	0.31	1803.90	
10136.	0.	10136.	0.	0.	844.	0.	171.	29.	1803.80	
0.19	0.00	12.00	0.00	0.052	0.025	0.160	0.000	1793.80	11416.73	
0.005844	70.	70.	70.	2	0	0	0.00	122.61	11570.34	

0
FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1801.57

STA= 11417. 11577.
PER Q= 100.0
AREA= 844.4
VEL= 12.0

1490 NH CARD USED
*SECNO 7.611

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	9.25	1803.15	0.00	1803.11	1804.18	1.03	0.01	0.36	1803.90	
10136.	0.	10136.	0.	0.	1242.	0.	171.	29.	1803.80	
0.19	0.00	8.16	0.00	0.052	0.025	0.160	0.000	1793.90	11412.33	
0.001283	5.	5.	5.	4	0	0	0.00	162.69	11575.02	

0
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TOA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1803.15

STA= 11412. 11577.
PER Q= 100.0
AREA= 1242.4
VEL= 8.2

1490 NH CARD USED
*SECNO 7.680

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11639.0 13620.0 TYPE= 1 TARGET= -11635.000
CL = 11800

7.68	8.55	1803.05	0.00	1803.01	1805.42	2.38	0.57	0.67	1808.30	
10136.	0.	10136.	0.	0.	819.	0.	178.	30.	1805.50	
0.19	0.00	12.37	0.00	0.052	0.025	0.160	0.000	1794.50	11730.64	
0.003696	280.	280.	220.	3	0	0	0.00	126.98	11857.62	

0
FLOW DISTRIBUTION FOR SECNO= 7.68 CWSEL= 1803.05

STA= 11731. 11930.
PER Q= 100.0
AREA= 819.2
VEL= 12.4

CCHV= 0.100 CEHV= 0.300

1490 NH CARD USED
*SECNO 7.970

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12410.0 14200.0 TYPE= 1 TARGET= -12410.000
CL = 12520

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Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT IN LOB MODELED SEPARATELY.

7.97	9.60	1815.60	1815.60	1815.58	1817.11	1.51	4.67	0.09	1812.90
10165.	149.	8392.	1624.	78.	782.	426.	215.	42.	1812.40
0.24	1.93	10.73	3.81	0.060	0.025	0.026	0.000	1806.00	12410.00
0.002395	1750.	1610.	1340.	20	8	0	0.00	602.88	13339.98

FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1815.60

STA=	12410.	12454.	12563.	12597.	12665.	12736.	13340.
PER Q=	1.5	82.6	4.6	4.0	6.0	1.3	
AREA=	77.5	782.1	86.7	108.0	132.7	99.0	
VEL=	1.9	10.7	5.4	3.8	4.6	1.3	

1490 NH CARD USED
*SECNO 8.190

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8940.0 11140.0 TYPE= 1 TARGET= -8940.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1822.00 ELREA= 1822.00

START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	10.54	1821.14	1821.14	1821.10	1825.73	4.59	4.51	0.92	1823.90
10165.	0.	10165.	0.	0.	591.	0.	239.	50.	1823.90
0.26	0.00	17.20	0.00	0.060	0.030	0.055	0.000	1810.60	8943.67
0.008095	1110.	1140.	930.	20	11	0	0.00	69.21	9012.87

FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1821.14

STA=	8944.	9014.
PER Q=	100.0	
AREA=	591.1	
VEL=	17.2	

1490 NH CARD USED
*SECNO 8.270

3301 HV CHANGED MORE THAN HVINS

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SECNO	DEPTH	CWSEL	CRIWS	∆SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9000.0 9290.0 TYPE= 1 TARGET= 290.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

LAKE MEAD BLVD BRIDGE
Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT IN LOB MODELED SEPARATELY.
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
CL = 9.53

8.27	11.22	1824.92	0.00	1824.86	1827.20	2.28	1.23	0.23	1824.00
10432.	0.	10432.	0.	0.	861.	244.	0.	50.	1822.20
0.27	0.00	12.12	0.00	0.060	0.025	0.055	0.000	1813.70	9006.00
0.002173	350.	330.	300.	3	6	0	0.00	88.00	9094.00

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1824.92

STA= 9006. 9094.
PER Q= 100.0
AREA= 861.
VEL= 12.1

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3280 CROSS SECTION 8.27 EXTENDED 0.90 FEET

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

347. ENCROACHMENT STATIONS= 9000.0 9290.0 TYPE= 1 TARGET= 290.000
Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	13.20	1826.90	1825.36	1826.83	1827.66	0.76	0.01	0.46	1824.00
10432.	309.	5989.	4134.	49.	755.	762.	245.	51.	1823.20
0.27	6.35	7.94	5.42	0.019	0.030	0.030	0.000	1813.70	9000.00
0.002004	5.	5.	5.	13	15	9	-116.69	287.16	9290.00

SECNO	DEPTH	CWSEL	CRIWS	∆SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1826.90

STA= 9000. 9017. 9035. 9290.
PER Q= 3.0 57.4 39.6
AREA= 48.7 754.6 762.2
VEL= 6.4 7.9 5.4

CCHV= 0.100 CEHV= 0.300

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*SECNO 8.310
3280 CROSS SECTION       8.31 EXTENDED       1.39 FEET

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8900.0     9270.0  TYPE=      1  TARGET=      370.000
          CL = 9080
      8.31      13.39   1827.39   1827.39   1827.37   1829.64      2.26      0.75      0.45   1824.10
     10432.      994.     8499.      940.      285.      639.      518.      253.       52.   1824.00
       0.27       3.44     13.30      1.82      0.055     0.015     0.140     0.000  1814.00   8900.00
  0.005904      235.      235.      235.        20        12         0   -125.60   370.00    9270.00

FLOW DISTRIBUTION FOR SECNO=       8.31          CWSEL=    1827.39

STA=     8900.     8940.     9040.     9116.     9120.     9140.     9148.     9270.
  PER Q=      1.5       3.2      81.5       0.2       0.7       0.3       7.9
    AREA=     55.4     233.6     639.1      13.3      47.7      19.1     437.5
     VEL=      2.5       3.7      13.3       1.8       1.5       1.4       1.9

CCHV=   0.300 CEHV=    0.600
*SECNO 8.311
3280 CROSS SECTION       8.31 EXTENDED       3.80 FEET

3301 HV CHANGED MORE THAN HVINS

3301 HV CHANGED MORE THAN HVINS

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCRAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     8900.0     9270.0  TYPE=      1  TARGET=      370.000
      8.31      15.80   1829.80      0.00   1829.78   1830.20      0.41      0.00      0.56   1824.10
     10432.      577.     5435.      420.      503.     1758.      778.      253.       52.   1824.00
       0.27       1.15     5.37      0.54      0.055     0.025     0.140     0.003  1814.00   8900.00
  0.000254        5.        5.        5.         3         0         0      0.00    370.00    9270.00

FLOW DISTRIBUTION FOR SECNO=       8.31          CWSEL=    1829.80

STA=     8900.     8940.     9014.     9140.     9148.     9270.
  PER Q=      1.4       4.1      90.4       0.2       3.8
    AREA=     151.8     351.2    1757.8     46.4     731.5
     VEL=      1.0       1.2       5.4       0.5       0.5

CCHV=   0.100 CEHV=    0.300
1490 NH CARD USED
*SECNO 8.610

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS
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3470 ENCROACHMENT STATIONS= 6880.0 11250.0 TYPE= 1 TARGET= -6880.000
CL = 8810
Q50 BREAKOUT OVER PECOS REDUCES D/S FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT OVER PECOS MODELED SEPARATELY.

8.61	11.21	1830.11	0.00	1830.08	1831.24	1.12	0.82	0.22	1832.60
10721.	1567.	9154.	0.	1334.	996.	0.	348.	71.	1832.30
0.33	1.17	9.19	0.00	0.095	0.025	0.160	0.000	1818.50	6880.00
0.001594	1573.	1560.	1370.	4	6	0	0.00	664.12	8076.66

0
FLOW DISTRIBUTION FOR SECNO= 8.61 CHSEL= 1830.11

STA=	6880.	7003.	7400.	7417.	8094.
PER Q=	8.0	6.6	0.0	85.4	
AREA=	307.7	1025.7	1.0	995.9	
VEL=	2.8	0.7	0.1	9.2	

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SECNO	DEPTH	CHSEL	CRIWS	LSELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPHIC	ENDST

1490 NH CARD USED
*SECNO 8.650

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4900.0 11180.0 TYPE= 1 TARGET= -4900.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1834.50 ELREA= 1834.50

CL = 7090

8.85	8.00	1832.40	1832.40	1832.40	1835.83	3.43	3.31	0.69	1837.60
10721.	0.	10721.	0.	0.	722.	0.	393.	82.	1837.80
0.35	0.00	14.86	0.00	0.160	0.025	0.160	0.000	1824.40	7025.63
0.005137	1370.	1250.	1200.	4	14	0	0.00	106.63	7132.26

0
FLOW DISTRIBUTION FOR SECNO= 8.85 CHSEL= 1832.40

STA=	7026.	7186.
PER Q=	100.	
AREA=	721.7	
VEL=	14.9	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 7700.0 11000.0 TYPE= 1 TARGET= 3300.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1836.50 ELREA= 1836.50

CAREY AVE BRIDGE
NORMAL BRIDGE; APPROXIMATION OF ARCH CULVERT.
MAY NEED TO MODIFY GR POINTS FOR VERY LOW FLOWS.
CL = 10000

8.90	10.41	1835.61	0.00	1835.61	1837.07	1.46	0.65	0.59	1837.80
10722.	3.	10722.	0.	0.	1109.	0.	398.	83.	1838.00

0.36	0.10	9.73	0.00	0.151	0.025	0.160	0.000	1825.27	9917.45
0.001797	170.	230.	360.	4	0	0	0.00	143.56	10061.01

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VCL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TCEWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1835.61

STA= 9917. 10070.
PER Q= 100.
AREA= 1105.3
VEL= 9.7

1490 NH CARD USED
*SECNO 8.901

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.89 MAX ELLC= 1832.40

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3725 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7700.0 11000.0 TYPE= 1 TARGET= 3300.000

8.90	13.47	1838.67	1838.67	1838.67	1839.21	0.54	0.01	0.28	1837.80
10722.	6816.	3578.	328.	4726.	358.	473.	398.	83.	1838.00
0.36	1.44	10.00	0.69	0.139	0.015	0.135	0.000	1825.20	7716.49
0.005644	5.	5.	5.	20	8	0	-488.48	3076.48	11000.00

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1838.67

STA=	7716.	8140.	8550.	8850.	9100.	9340.	9870.	9950.	10019.	11000.
PER Q=	11.5	14.1	13.0	9.2	7.0	8.3	0.9	33.4	3.1	
AREA=	937.6	1115.3	936.1	705.1	388.9	593.7	49.6	357.8	472.7	
VEL=	1.3	1.4	1.5	1.4	1.9	1.5	2.1	10.0	0.7	

1490 NH CARD USED
*SECNO 8.910

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

3470 ENCROACHMENT STATIONS= 7700.0 11000.0 TYPE= 1 TARGET= 3300.000

CL = 11000

8.91	13.81	1839.41	0.00	1839.41	1839.57	0.16	0.25	0.11	1837.80
10722.	7560.	2258.	885.	6397.	343.	1159.	409.	88.	1838.00
0.37	1.18	6.57	0.76	0.139	0.015	0.114	0.000	1825.60	7700.00
0.002433	70.	70.	70.	3	2	0	-488.59	3300.00	11000.00

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1839.41

STA=	7700.	8140.	8550.	8850.	9100.	9340.	9870.	9950.	10018.	10270.	11000.

PER Q=	11.4	13.9	12.2	8.9	8.6	12.8	2.9	21.1	4.0	4.3
AREA=	1262.2	1420.2	1159.2	691.0	567.4	987.9	109.1	343.4	318.1	840.7
VEL=	1.0	1.0	1.1	1.1	1.6	1.4	2.9	6.6	1.3	0.5

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.911

3470 ENCROACHMENT STATIONS= 7700.0 11000.0 TYPE= 1 TARGET= 3300.000
Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM
OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.
Q50 BREAKOUT IN ROB DOES NOT RETURN TO CHANNEL.

8.91	13.74	1839.34	0.00	1839.34	1839.65	0.31	0.00	0.08	1828.00
10722.	3267.	6235.	1201.	6421.	1069.	1342.	410.	89.	1828.00
0.37	0.51	5.83	0.89	0.108	0.025	0.048	0.000	1825.60	7700.00
0.000306	5.	5.	5.	2	0	0	0.00	3300.00	11000.00

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1839.34

STA=	7700.	8140.	8550.	8850.	9100.	9870.	9945.	10025.	10070.	1100 .
PER Q=	3.9	4.8	4.2	3.0	7.1	7.6	58.2	9.3	1.9	
AREA=	1230.3	1393.8	1137.5	872.9	1499.6	290.1	1069.3	285.4	1056.2	
VEL=	0.3	0.4	0.4	0.4	0.5	2.8	5.8	3.9	0.2	

1490 NH CARD USED
*SECNO 9.060

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347(ENCROACHMENT STATIONS= 4850.0 7361.(TYPE= 1 TARGET= 2511.000
CL = 7310

SECNO	DEPTH	CWSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	ANCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.06	12.87	1840.97	1840.97	1840.97	1842.59	1.61	0.52	0.65	1840.50
10722.	825.	9898.	0.	1917.	933.	0.	504.	135.	1841.10
0.39	0.43	10.61	0.00	0.160	0.025	0.160	0.000	1828.10	4993.00
0.002389	65.	823.	830.	20	11	0	0.00	2287.62	7348.71

FLOW DISTRIBUTION FOR SECNO= 9.06 CWSEL= 1840.97

STA=	4993.	5350.	7110.	7142.	7219.	7349.
PER Q=	0.5	7.1	0.0	0.0	92.3	
AREA=	183.9	1715.5	15.7	2.1	932.8	
VEL=	0.3	0.4	0.3	0.2	10.6	

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.300

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 4850.0 7900.0 TYPE= 1 TARGET= 3050.000
CL = 7270

9.30	10.96	1845.36	1845.36	1845.36	1846.25	0.89	2.80	0.07	1847.10
10722.	339.	9678.	706.	671.	1216.	367.	570.	177.	1844.70
0.44	0.51	7.96	1.92	0.130	0.026	0.036	0.000	1834.40	5874.60
0.002157	1040.	1250.	1070.	3	10	0	0.00	1320.79	7815.00

FLOW DISTRIBUTION FOR SECNO= 9.30 CWSEL= 1845.36

STA=	5875.	6596.	7447.	7815.
PER Q=	3.2	90.3	6.6	
AREA=	670.5	1216.3	367.3	
VEL=	0.5	8.3	1.9	

CCHV= 0.300 CEHV= 0.500
1495 NH CARD USED

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 9.410

3268 DIVIDED FLOW

3268 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 12700. 16400.0 TYPE= 1 TARGET= 3700.000

3498 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1849.80 ELREA= 1850.10

LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 5430

9.41	9.31	1849.81	1849.81	1849.81	1850.16	0.35	1.74	0.16	1847.90
10722.	4685.	6037.	0.	3805.	969.	0.	829.	213.	1846.50
0.48	1.23	6.23	0.00	0.044	0.025	0.040	0.000	1840.50	12700.00
0.000740	840.	570.	330.	20	12	0	0.00	2764.34	15496.00

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1845.81

STA=	12700.	13410.	14000.	14250.	14700.	14900.	15065.	15184.	15306.	15370.	15496.
PER Q=	5.1	8.7	3.7	8.3	4.5	4.2	3.6	3.7	1.8	56.3	
AREA=	558.4	771.8	419.5	858.6	321.6	284.8	230.4	235.7	118.9	968.8	
VEL=	1.0	1.2	1.0	1.0	1.5	1.6	1.7	1.7	1.7	6.2	

1490 NH CARD USED
*SECNO 9.411

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 1849.90 MAX ELLC= 1848.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

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3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=   12700.0    16400.0  TYPE=      1  TARGET=     3700.000
      9.41      10.35  1850.55  1850.55  1850.55  1851.06      0.51        0.01        0.08  1847.80
     10722.     5721.     3665.     1336.     2626.      394.      653.      630.      213.    1847.80
       0.48      2.18      9.30      2.05     0.043     0.015     0.039     0.000  1840.50 12700.00
  0.003120         5.        5.        5.        20        12         0 -2416.73  3700.00 16400.00

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

FLOW DISTRIBUTION FOR SECNO=      9.41          CWSEL=   1850.55

STA=   12700.   14000.   14150.   14700.   15000.   15391.   15459.   16120.   16400.
  PER Q=     35.5      5.4      4.5      6.9      1.0     34.2     11.0      1.5
   AREA=  1561.0    278.2    410.1    296.4     80.6    394.2    501.4    151.3
    VEL=      2.4      2.1      1.2      2.5      1.4      9.3      2.4      1.0

1490 NH CARD USED
*SECNO 9.430

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 1850.00 MAX ELLC= 1851.00

3470 ENCROACHMENT STATIONS=   12350.    15901.0  TYPE=      1  TARGET=     3550.000
          SPLIT FLOW MODELED AS WEIR FLOW OVER LWB; WEIR LENGTH LIMITED TO
          APPROX 1000 FT BY EFFECTIVE FLOW EXPANSION FROM 9.47.
          CL = 5050
      9.43      9.35  1851.15     0.00  1851.15  1851.48      0.33        0.36        0.05  1849.20
    13000.     9579.     2896.      524.     3248.      357.      258.      639.      222.    1845.20
       0.49      2.95      8.11      2.03     0.036     0.015     0.036     0.000  1841.80 12350.00
  0.003458       110.      110.      110.         4         0         0  -427.41  3402.97 15900.00

FLOW DISTRIBUTION FOR SECNO=      9.43          CWSEL=   1851.15

STA=   12350.   12970.   13300.   13820.   14500.   14680.   15020.   15087.   15900.
  PER Q=     15.0     12.7     21.9     20.2      3.1      0.7     22.3      4.0
   AREA=   713.6    499.8    832.5    884.6    234.2     83.3    357.0    257.9
    VEL=      2.7      3.3      3.4      3.0      1.7      1.1      8.1      2.0

CCHV=   0.300 CEHV=   0.500
1490 NH CARD USED
*SECNO 9.431

3470 ENCROACHMENT STATIONS=   12350.0    15900.0  TYPE=      1  TARGET=     3550.000
      9.43      9.35  1851.15     0.00  1851.15  1851.49      0.34        0.01        0.01  1850.00
    13000.     7467.     4767.      766.     3939.      648.      578.      640.      223.    1850.00
       0.49      1.90      7.36      1.33     0.037     0.025     0.040     0.000  1841.80 12350.00
  0.003133         5.        5.        5.                   0         0      0.00  3550.00 15900.00

1
   5-MAY-88     11:37:58                                                                    PAGE    30

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST
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FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1851.15

STA=	12350.	13700.	14000.	14400.	15000.	15100.	15900.
PER Q=	35.9	3.1	8.2	5.2	36.7	5.9	
AREA=	2198.4	494.1	558.8	688.2	647.7	577.6	
VEL=	2.1	2.1	1.9	1.8	7.4	1.3	

1490 NH CARD USED
*SECNO 9.470
3665 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4940.0 8521.0 TYPE= 1 TARGET= 3581.000
CL = 7740

9.47	9.78	1852.08	1852.08	1852.08	1852.21	0.13	.18	0.06	1852.00
13000.	6872.	4578.	1549.	5153.	997.	1374.	667.	238.	1850.70
0.51	1.33	4.59	1.13	0.052	0.027	0.060	0.000	1842.30	4951.83
0.000776	185.	185.	185.	20	11	0	0.00	3569.17	8521.00

FLOW DISTRIBUTION FOR SECNO= 9.47 CWSEL= 1852.08

STA=	4952.	5380.	5631.	5861.	6040.	6171.	6298.	6412.	6568.	6675.	6804.	6928.	7041.
PER Q=	3.4	4.0	3.5	4.0	3.0	4.2	3.5	4.1	4.1	4.6	3.3	4.0	
AREA=	516.4	482.8	429.6	425.5	315.2	378.6	324.0	405.9	351.1	291.1	234.9	256.0	
VEL=	3.9	1.1	1.1	1.2	1.2	1.4	1.4	1.3	1.5	2.1	1.8	2.0	
STA=	7041.	7142.	7387.	7655.	7845.	8129.	8324.	8512.	8521.				
PER Q=	3.1	3.1	1.1	35.2	3.8	4.6	3.4	0.1					
AREA=	209.1	317.2	215.6	997.2	491.8	479.4	387.5	15.6					
VEL=	1.9	1.3	0.6	4.6	1.0	1.3	1.1	0.9					

TN BREAKOUT OVER ROB ABOVE LAME

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1819.9	0.79	3.16	1.21	2050.0	1338.2

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
1276.25	1273.60	0.21	1276.25	1273.60	0.21	21	1786.156	1794.920	6.760	7.140

TN BREAKOUT OVER LOB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
40.3	0.57	0.50	0.25	1930.0	161.4

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
29.41	23.03	24.31	1305.66	1296.64	0.69	21	1801.572	1815.600	7.610	7.970

TN BREAKOUT OVER LOB RIDGE

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
147.6	1.12	3.92	0.32	1450.0	466.5

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
267.00	165.91	46.70	1572.66	1462.55	7.26	21	1815.600	1824.916	7.970	8.270

TN BREAKOUT OVER PECOS RD U/S LAKE MEAD

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
91.7	0.61	0.93	0.19	2010.0	480.6

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNQ	USSNQ
289.01	56.24	134.84	1861.67	1518.79	20.29	21	1824.916	1830.114	8.270	8.610

TN BREAKOUT OVER PECOS RD - LAKE MEAD TO CAREY

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
6.8	0.16	0.11	0.06	2090.0	120.4

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNQ	USSNQ
1.25	1.06	16.75	1862.92	1519.86	20.28	21	1830.114	1835.607	8.610	8.900

TN BREAKOUT OVER PECOS RD - CAREY TO LWB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
28.2	0.23	0.35	0.17	2800.0	162.5

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNQ	USSNQ
6.57	6.58	0.09	1869.50	1526.43	20.20	21	1835.607	1851.147	8.900	9.430

TW WEIR OVER LWB EAST OF PECOS - GOES TO OVERBANK MODEL

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNQ	USSNQ
2270.96	227.96	7.00	4143.46	3797.40	20.20	21	1850.555	1851.147	9.411	9.430


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  51,51,52,53,54,55
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T1      CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGP
T3      LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  -100-YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        4.        0.        0.  0.000000      0.00      0.0       0.  1785.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	&NCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&ID	ENDST

*PROF 2

CCH&= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 6.710

6.71	15.70	1785.80	0.00	1785.00	1785.34	0.34	0.00	0.00	1784.80
23547.	14658.	8889.	0.	13161.	1188.	0.	0.	0.	1784.80
0.00	1.11	7.49	0.00	0.089	0.035	0.000	0.000	1769.30	5600.00
0.001253	650.	730.	450.	0	0	0	0.00	9439.00	15039.00

FLOW DISTRIBUTION FOR SECNO= 6.71 C&SEL= 1785.00

STA=	5600.	12020.	13425.	14065.	14680.	14809.	14835.	14910.	14942.	15039.
PER Q=	10.4	3.1	6.9	15.4	4.6	5.6	14.1	2.0	37.7	
AREA=	5120.0	1405.0	1920.0	3075.0	812.7	195.0	521.2	111.8	1187.5	
VEL=	0.5	0.5	0.8	1.2	1.4	6.7	6.4	4.2	7.5	

CCH&= 0.300 CEHV= 0.500
*SECNO 6.750
SPLIT FLOW RUN FOR Q100 AND Q50 - LOB MODELED SEPARATELY
LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q50 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

6.75	14.39	1785.29	0.00	1785.29	1785.50	0.21	0.12	0.04	1783.00
23547.	13494.	10053.	0.	17247.	1807.	0.	56.	30.	1783.00
0.02	0.78	5.56	0.00	0.070	0.030	0.080	0.000	1770.90	935.79
0.000458	140.	220.	220.	3	0	0	0.00	9136.25	10072.04

FLOW DISTRIBUTION FOR SECNO= 6.75 C&SEL= 1785.29

STA=	936.	2940.	6700.	7800.	8800.	9250.	9550.	9850.	9928.	10072.
PER Q=	5.5	19.3	6.0	3.4	5.7	6.6	9.3	1.4	42.7	
AREA=	2462.8	6761.3	2053.0	1410.7	1384.2	1289.5	1589.5	296.3	1607.4	
VEL=	0.5	0.7	0.7	0.6	1.0	1.2	1.4	1.1	5.6	

*SECNO 6.751

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

6.75	14.62	1785.52	0.00	1785.52	1785.56	0.04	0.00	0.05	1783.00
23547.	19084.	4462.	0.	19275.	1582.	0.	59.	31.	1783.00
0.02	0.99	2.82	0.00	0.070	0.030	0.080	0.000	1770.90	898.67
0.000660	5.	5.	5.	2	0	0	-128.00	9173.38	10072.05

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	&NCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&ID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.75 C&SEL= 1785.52

STA=	899.	2940.	6700.	7800.	8800.	9250.	9550.	9850.	9928.	10072.
PER Q=	8.7	28.2	8.7	5.3	7.7	8.6	12.0	1.8	19.0	
AREA=	2917.9	7607.2	2300.5	1635.7	1485.4	1357.0	1657.0	313.8	1581.6	
VEL=	0.7	0.9	0.9	0.8	1.2	1.5	1.7	1.4	2.8	

*SECNO 6.760

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3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

3470 ENCROACHMENT STATIONS=        0.0    10075.0  TYPE=      1  TARGET=   10074.999
      6.76      14.49   1785.59      0.00   1785.59   1785.63      0.04      0.07      0.00   1783.20
     23547.    18703.     4844.        0.     18065.     1587.        0.       105.       82.   1783.20
      0.04      1.04      3.05      0.01      0.070     0.030     0.080     0.000   1771.10    920.81
  0.000769       100.      100.       100.         2         0         0   -100.01   9151.24  10072.05

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1785.59

STA=     921.     2940.     6700.     7800.     8800.     9250.     9550.     9850.     9928.    10072.
  PER Q=      8.0      27.1       8.4       4.9       7.8       8.8      12.4       1.9      20.6
    AREA=   2645.5    7102.8    2152.9    1511.5    1425.1    1316.7    1616.7     303.3    1587.3
     VEL=      0.7       0.9       0.9       0.8       1.3       1.6       1.8       1.5       3.1

*SECNO 6.761
      6.76      14.51   1785.61      0.00   1785.61   1785.79      0.19      0.09      0.07   1783.20
     23547.    13848.     9699.        0.     18148.     1822.        0.       172.       82.   1783.20
      0.05      0.76      5.32      0.00      0.070     0.030     0.080     0.000   1771.10    919.28
  0.000416       140.      220.       220.         1         0         0      0.00   9152.77  10072.05

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1785.61

STA=     919.     2940.     6700.     7800.     8800.     9250.     9550.     9850.     9928.    10072.
  PER Q=      6.0      20.1       6.3       3.7       5.7       6.5       9.2       1.4      41.2
    AREA=   2664.3    7137.7    2163.1    1510.8    1429.2    1319.5    1619.5     304.1    1821.9
     VEL=      0.5       0.7       0.7       0.6       0.9       1.2       1.3       1.1       5.3

*SECNO 6.920
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TEA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELPIA       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3720 CRITICAL DEPTH ASSUMED
          CL = 1137.
          UPSTREAM LOB OVERFLOWS RETURN TO MODEL.
      6.92     13.67   1791.37   1791.37   1791.37   1791.37      0.00      0.06      0.05   1791.00
     23547.    22173.     1367.        7.     53061.      951.        39.       673.      214.   1790.90
      0.43      0.42      1.44      0.18      0.070     0.030     0.080     0.000   1777.70    759.68
  0.000041       580.      830.       840.        20        13         0      0.00  10626.33  11426.00

FLOW DISTRIBUTION FOR SECNO=      6.92          CWSEL=   1791.37

STA=     800.     2000.     3500.     4850.     6450.     9200.     9550.    10200.    11000.    11321.    11410.    11426.
  PER Q=      4.7       8.3       7.5      13.0      34.9       5.0      10.5       8.5       1.9       5.8       0.0
    AREA=   3673.5    5802.1    5221.9    7788.9   17512.1    2403.8    4789.2    4574.4    1295.0     951.0      35.5
     VEL=      0.3       0.3       0.3       0.4       0.5       0.5       0.5       0.4       0.4       1.4       0.2

CCHV=   0.100 CEHV=   0.300
*SECNO 7.140

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=   11200.0    12370.0  TYPE=      1  TARGET=    1170.000
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CL = 12260
Q50 BREAKOUT IN ROB REDUCE DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 ROB BREAKOUT MODELED SEPARATELY.

7.14	13.94	1793.14	1793.14	1793.14	1794.33	1.19	0.08	0.36	1791.00
13067.	2961.	10116.	0.	1434.	1021.	0.	1063.	295.	1792.80
0.46	2.06	9.90	0.55	0.070	0.030	0.080	0.000	1779.20	11200.00
0.005249	580.	1200.	1250.	20	9	0	0.00	1170.00	12370.00

FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1793.14

STA=	11200.	12000.	12114.	12150.	12369.	12370.
PER Q=		16.3	4.8	1.5	77.4	0.0
AREA=	1112.6	244.0	77.1	1021.3	0.4	
VEL=		1.9	2.6	2.6	9.9	0.6

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.340

3391 HV CHANGED MORE THAN HVINS

347 ENCROACHMENT STATIONS= 12320.0 13730.0 TYPE= 1 TARGET= -12320.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1798.00 ELREA= 1796.50

CL = 12370

7.34	10.74	1796.24	0.00	1796.24	1799.66	3.42	4.66	0.67	1798.00
13067.	0.	13067.	0.	0.	880.	0.	1096.	306.	1796.50
0.47	0.00	14.84	0.00	0.070	0.025	0.160	0.000	1785.50	12324.42
0.004166	600.	1050.	1300.	3	0	0	0.00	111.85	12436.28

FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1796.24

STA=	12324.	12437.
PER Q=	100.0	
AREA=	880.5	
VEL=	14.8	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.600

3391 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING
CL = 11490

7.60	8.75	1802.55	0.00	1802.54	1804.54	1.99	4.45	0.43	1803.90
13067.	0.	13067.	0.	0.	1155.	0.	1128.	310.	1803.80
0.51	0.00	11.31	0.00	0.060	0.025	0.160	0.000	1793.80	11414.14
0.002634	1200.	1360.	1350.	3	0	0	0.00	158.59	11573.13

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1802.55

STA= 11414. 11577.
PER Q= 100.0
AREA= 1155.1
VEL= 11.3

1498 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	8.43	1802.23	0.00	1802.22	1804.90	2.67	0.02	0.34	1803.90
13067.	0.	13067.	0.	0.	996.	0.	1126.	310.	1803.80
0.51	0.00	13.11	0.00	0.065	0.025	0.160	0.000	1793.80	11414.95
0.006241	5.	5.	5.	3	0	0	0.00	143.34	11572.30

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1802.23

STA= 11415. 11577.
PER Q= 100.0
AREA= 996.5
VEL= 13.1

1498 NH CARD USED
*SECNO 7.610

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	8.92	1802.72	1802.06	1802.71	1805.60	2.88	0.60	0.10	1803.90
13067.	0.	13067.	0.	0.	960.	0.	1130.	310.	1803.80
0.51	0.00	13.61	0.00	0.060	0.025	0.160	0.000	1793.80	11413.43
0.012258	70.	70.	70.	10	19	0	-47.76	160.31	11573.75

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1802.72

STA= 11413. 11577.
PER Q= 100.
AREA= 959.9
VEL= 13.6

1490 NH CARD USED
*SECNO 7.611

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

7.61	11.22	1805.12	0.00	1805.10	1806.16	1.04	0.01	0.55	1803.90	
13067.	91.	12931.	45.	129.	1569.	184.	1130.	310.	1803.80	
0.51	0.71	3.24	0.25	0.060	0.025	0.160	0.000	1793.90	11247.17	
0.000993	5.	5.	5.	4	0	0	0.00	605.92	11853.09	

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1805.12

STA= 11247. 11283. 11410. 11577. 11790. 11853.
PER Q= 0.0 0.7 99.0 0.3 0.0
AREA= 10.1 119.0 1569.5 173.7 10.0
VEL= 0.4 1.7 8.2 0.3 0.1

1490 NH CARD USED
*SECNO 7.680

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11639.0 13620.0 TYPE= 1 TARGET= -11639.000

CL = 11300

7.68	10.42	1804.92	0.00	1804.90	1807.24	2.32	0.44	0.64	1808.30	
13067.	0.	13067.	0.	0.	1069.	0.	1139.	312.	1809.50	
0.52	0.00	12.23	0.00	0.060	0.025	0.160	0.000	1794.50	11722.83	
0.002678	280.	280.	220.	3	0	0	0.00	139.46	11862.30	

FLOW DISTRIBUTION FOR SECNO= 7.68 CWSEL= 1804.92

STA= 11723. 11930.
PER Q= 100.
AREA= 1068.8
VEL= 12.2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 7.970

3265 DIVIDED FLOW

3280 CROSS SECTION 7.97 EXTENDED 0.68 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12410.0 14200.0 TYPE= 1 TARGET= -12410.000
CL = 12520
Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.

Q100 BREAKOUT IN LOB MODELED SEPARATELY.

7.97	10.68	1816.68	1816.68	1816.63	1817.83	1.14	3.58	0.12	1812.90	
13534.	276.	9231.	4027.	125.	900.	1686.	1204.	343.	1812.40	
0.57	2.20	10.25	2.39	0.060	0.025	0.034	0.000	1806.80	12410.00	
0.001865	175	1610.	1340.	23	5	0	0.00	1785.30	14200.00	

0
FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1816.68

STA=	12410.	12454.	12563.	12597.	12669.	12701.	12736.	13250.	14200.
PER Q=	2.	68.2	5.5	6.6	3.6	4.6	5.7	3.6	
AREA=	125.3	900.3	123.6	196.1	93.9	111.5	445.6	725.5	
VEL=	2.2	10.3	6.1	4.8	5.3	5.6	1.7	0.7	

1490 NH CARD USED
*SECNO 8.190
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SECNO	DEPTH	CWSEL	CRIWS	KSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3280 CROSS SECTION 8.19 EXTENDED 0.19 FEET

3685 20 TRIALS ATTEMPTED KSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8940.0 11140.0 TYPE= 1 TARGET= -8940.000
START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	14.09	1824.69	1824.69	1824.83	1826.27	1.58	2.38	0.13	1823.90	
13534.	1.	9941.	3592.	1.	845.	3280.	1282.	385.	1823.90	
0.61	0.39	11.76	1.10	0.050	0.030	0.106	0.000	1810.60	8940.00	
0.002629	111	1140.	930.	23	15	0	0.00	2144.93	11140.00	

0
FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1824.69

STA=	8940.	8941.	9014.	9150.	9204.	9550.	10300.	10940.	11140.
PER Q=	0.	73.5	3.2	6.8	5.6	7.2	3.5	0.2	
AREA=	0.8	845.1	167.3	230.6	795.8	1267.1	731.3	87.9	
VEL=	0.9	11.8	2.6	4.0	1.0	0.8	0.6	0.3	

1490 NH CARD USED
*SECNO 8.270
3685 20 TRIALS ATTEMPTED KSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9000.0 10560.0 TYPE= 1 TARGET= -9000.000
LAKE MEAD BLVD BRIDGE
Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT IN LOB MODELED SEPARATELY.
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
CL = 9050

8.27	12.27	1825.97	1825.97	1825.99	1827.54	1.57	0.68	0.00	1824.00	
15731.	16.	11275.	4449.	12.	954.	2345.	1308.	398.	1822.20	
0.62	1.37	11.82	1.89	0.060	0.025	0.051	0.000	1813.70	9000.00	
0.001802	353	331.	300.	23	5	0	0.00	1557.14	10557.14	

0
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1825.57

STA=	9000.	9006.	9094.	9290.	9400.	9500.	10557.
PER Q=	0.1	71.7	16.2	6.7	3.6	1.8	
AREA=	11.8	954.1	585.3	272.1	862.0	625.4	
VEL=	1.4	11.8	4.4	3.8	0.6	0.5	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3280 CROSS SECTION 8.27 EXTENDED 0.08 FEET

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9000.0 10560.0 TYPE= 1 TARGET= -9000.000
Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	12.38	1826.08	1826.08	1826.08	1827.17	1.09	0.01	0.14	1824.00	
15731.	268.	7886.	7577.	35.	693.	2493.	1308.	398.	1823.20	
0.62	7.70	11.38	3.24	0.120	0.030	0.052	0.000	1813.70	9000.00	
0.004587	5.	5.	5.	20	17	0	-116.68	1557.13	10560.00	

0
FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1826.08

STA=	9000.	9017.	9095.	9290.	9400.	9500.	10450.	10560.
PER Q=	1.7	50.1	27.2	11.4	6.2	3.2	0.2	
AREA=	34.3	692.9	602.0	283.5	913.8	630.2	63.5	
VEL=	7.7	11.4	7.1	6.3	1.1	0.8	0.5	

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310
3280 CROSS SECTION 8.31 EXTENDED 1.43 FEET

337 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8900.0 11780.0 TYPE= 1 TARGET= -8900.000
CL = 9180

8.31	13.43	1827.43	1827.43	1827.43	1828.45	1.02	1.07	0.01	1824.10
15731.	898.	7486.	7346.	295.	643.	5638.	1335.	410.	1824.00
0.63	3.04	11.65	1.30	0.055	0.015	0.140	0.000	1814.00	8900.00

```
 0.004501      235.      235.      235.         4        12         0  -125.60  2880.00 11780.00

FLOW DISTRIBUTION FOR SECNO=       8.31          CWSEL=    1827.43

STA=    8900.    8940.    9040.    9116.    9120.    9140.    9148.    9270.    9580.    9770.   10130.   11780.
  PER Q=    0.8      4.9     47.6      0.1      0.4      0.2      4.7     13.2      7.4      7.2     13.6
    AREA=    57.2    238.1    642.6     13.5     48.6     19.4    443.0   1187.6    689.9    875.2   2361.2
     VEL=     2.2      3.2     11.7      1.6      1.3      1.3      1.7      1.7      1.7      1.3      0.9

CCHV=   0.300 CEHV=   0.500
*SECNO 8.311
3280 CROSS SECTION       8.31 EXTENDED       1.86 FEET


3470 ENCROACHMENT STATIONS=     8900.0   11780.0  TYPE=      1  TARGET=   -8900.000
      8.31     13.86   1827.86      0.00   1827.86   1828.56      0.70      0.01      0.10   1824.10
     15731.      359.    11736.    3636.      282.     1514.     6713.     1335.      411.   1824.00
      0.63      1.27      7.75      0.54     0.055     0.025     0.140     0.000   1814.00   8900.00
 0.000647         5.        5.        5.         3         0         0      0.00   2880.00  11780.00

FLOW DISTRIBUTION FOR SECNO=       8.31          CWSEL=    1827.86

STA=    8900.    8940.    9014.    9140.    9148.    9270.    9580.    9770.   10130.   11780.
  PER Q=    0.5      1.8     74.6      0.1      2.2      6.0      3.4      3.6      7.9
    AREA=    74.3    207.8   1513.7     30.9    495.1   1320.1    771.1   1029.0   3066.4
     VEL=     1.       1.4      7.8      0.7      0.7      0.7      0.7      0.5      0.4

CCHV=   0.10.  CEHV=   0.300
1490 NH CARD USED
*SECNO 8.610

3265 DIVIDED FLOW
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCFAR     TOPWID      ENDST


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     6880.0   11250.0  TYPE=      1  TARGET=   -6880.000
          CL  = 8010
          Q50 BREAKOUT OVER PECOS REDUCES D/S FLOWS.  BREAKOUT NOT MODELED.
          Q100 BREAKOUT OVER PECOS MODELED SEPARATELY.
      8.61     12.07   1830.97   1830.97   1830.97   1832.97      2.00      1.94      0.39   1832.60
     17586.     3522.    14065.       0.      1889.     1111.        0.     1527.      472.   1832.30
      0.67      1.86     12.66      0.00     0.095     0.025     0.160     0.000   1818.90   6880.00
 0.003035      157.      1560.     1370.        20        12         0      0.00    870.62   8082.69

FLOW DISTRIBUTION FOR SECNO=       8.61          CWSEL=    1830.97

STA=    6880.    7000.    7430.    7844.    8094.
  PER Q=   10.8      9.0      0.2     80.0
    AREA=   410.3   1367.8    111.3   1110.5
     VEL=     4.5      1.2      0.3     12.7

1490 NH CARD USED
*SECNO 8.650
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 3265 DIVIDED FLOW

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3475 ENCROACHMENT STATIONS=     4900.0    10080.0  TYPE=      1  TARGET=     5180.000
           CL = 7390
        8.85      12.27   1836.67   1836.67   1836.67   1838.29      1.62      3.23      0.04   1837.60
    17586.       2829.    14203.      555.      3534.     1250.     1304.     1664.       530.    1837.80
       .71         .80      11.37      .43       .161      .025      .161      .000   1824.41    4908.85
 0.002160      1370.     1250.     1200.          3            5         0      0.00   2959.16    9785.70

 FLOW DISTRIBUTION FOR SECNO=       8.85          CWSEL=    1836.67

 STA=     4909.     5248.     5626.     5977.     6356.     7188.     9786.
   PER Q=     3.8       4.5       4.9       2.9      80.8       3.2
    AREA=   834.7     969.8     992.6     736.6    1249.5    1303.6
     VEL=     0.8       0.9       0.9       0.7      11.4       0.4

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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
     6         WLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TEA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     ICFLID      ENDST


 CCHV=   0.300 CEHV=    0.500
 1490 NH CARD USED
 *SECNO 8.900

 3265 DIVIDED FLOW

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3475 ENCROACHMENT STATIONS=     7700.0    12530.0  TYPE=      1  TARGET=     4830.000
           CAREY AVE BRIDGE
           NORMAL BRIDGE; APPROXIMATION OF ARCH CULVERT.
           MAY NEED TO MODIFY GR POINTS FOR VERY LOW FLOWS.
           CL = 10000
        8.90      12.97   1838.17   1838.17   1838.17   1839.72      1.55      0.43      0.02   1837.80
    19150.       2423.    16233.      489.      3614.     1497.     1282.     1696.       552.    1838.00
       .71         .67      10.95      .38       .146      .025      .155      .000   1825.20    7741.71
 0.001736       170.      230.      360.          4            8         0      0.00   4338.23   12530.00

 FLOW DISTRIBUTION FOR SECNO=       8.90          CWSEL=    1838.17

 STA=     7742.     8550.     8850.     9340.     9910.    10070.    12530.
   PER Q=     5.5       3.0       3.2       1.0      84.8       2.6
    AREA=  1638.9     764.8     846.8     344.0    1496.5    1281.8
     VEL=     0.6       0.7       0.7       0.6      10.8       0.4

 1490 NH CARD USED
 *SECNO 8.901

 3301 HV CHANGED MORE THAN HVINS


 3371 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1837.87 MAX ELLC= 1832.40


 3475 ENCROACHMENT STATIONS=     7700.0    12530.0  TYPE=      1  TARGET=     4830.000
        8.90      14.77   1839.97   1838.86   1839.97   1840.14      0.17      0.01      0.41   1837.80
    19150.       1048.     3320.     5422.     7657.      448.     5582.     1697.       552.    1838.00
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      0.71      1.36      7.42      3.97     0.126     0.015     0.133     0.000  1825.20  7700.00
 0.002427         5.        5.        5.        14         6         0  -488.59  4830.00 12530.00
```


SECNO	DEPTH	C#SEL	CRIWS	#SELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.90 C#SEL= 1839.57

STA=	7700.	8140.	8550.	8850.	9100.	9340.	9870.	9950.	10019.	10270.	11000.	11770.	12530.
PER Q=	8.5	10.3	8.5	6.3	6.9	11.1	3.1	17.3	4.3	4.4	11.3	8.3	
AREA=	1508.6	1649.8	1327.2	1031.0	701.7	1284.7	153.9	447.7	457.6	1249.5	2290.0	1585.2	
VEL=	1.1	1.2	1.2	1.2	1.9	1.7	3.9	7.4	1.8	0.7	0.9	1.0	

1490 NH CARD USED
*SECNO 8.910

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

3470 ENCROACHMENT STATIONS= 7700.0 12530.0 TYPE= 1 TARGET= 4830.000
CL = 10000

```
      8.91     14.59  1840.19      0.00  1840.19  1840.31      0.12      0.16      0.01  1837.80
     19150.    10923.    2690.    5537.    8155.     396.    6140.     1720.      560.   1838.00
      0.72      1.34      6.78     0.90     0.125    0.015     0.143     0.000  1825.60  7700.00
 0.002138        70.       70.      70.         2        0         0  -455.59  4830.00 12530.00
```

FLOW DISTRIBUTION FOR SECNO= 8.91 C#SEL= 1840.19

STA=	7700.	8140.	8550.	8850.	9100.	9340.	9870.	9950.	10018.	10070.	10800.	11770.	12530.
PER Q=	8.8	10.2	8.7	6.5	7.3	12.0	3.5	14.0	3.5	4.3	14.3	6.9	
AREA=	1605.9	1740.5	1393.5	1086.3	754.8	1401.9	171.6	396.5	96.0	1291.0	2999.3	1753.3	
VEL=	1.3	1.1	1.2	1.1	1.8	1.6	4.0	6.8	6.9	0.6	0.9	0.8	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.911

3470 ENCROACHMENT STATIONS= 7700.0 12530.0 TYPE= 1 TARGET= 4830.000
Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM
OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.
Q50 BREAKOUT IN ROB DOES NOT RETURN TO CHANNEL.

```
      8.91     14.41  1840.01      0.00  1840.01  1840.51      0.50      0.00      0.19  1828.00
     19150.     6147.    9180.    3822.    7920.    1123.    5922.     1722.      561.   1828.00
      0.72      0.78      8.18     0.65     0.109    0.025     0.103     0.000  1825.60  7700.00
 0.000563         5.        5.       5.         2        0         0     0.00  4830.00 12530.00
```


SECNO	DEPTH	C#SEL	CRIWS	#SELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.91 C#SEL= 1840.01

STA=	7700.	8140.	8550.	8850.	9100.	9340.	9870.	9945.	10025.	10070.	11770.	12530.
PER Q=	4.1	4.9	4.2	3.1	3.4	5.5	7.0	47.9	8.4	8.5	3.1	
AREA=	1524.2	1664.4	1337.8	1039.9	710.3	1303.5	340.2	1122.8	315.4	3994.7	1612.2	

```
     VEL=       0.5       0.6       0.6       0.6       0.9       0.8       3.9       8.2       5.1       0.4       0.4

1490 NH CARD USED
*SECNO 9.060

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4850.0     8750.0  TYPE=      1  TARGET=     3900.000
          CL = 7310
      9.06      14.32   1842.42   1842.42   1842.42   1843.76      1.34      0.77      0.42   1840.50
     19150.     3890.    12750.     2510.     5196.     1121.     3097.     1927.      634.    1841.10
      0.75       0.75     11.37      0.81      0.161     0.025     0.146     0.000  1828.10   4857.14
 0.002154       650.      820.      830.         20         6         0      0.00  3892.86   8750.00

FLOW DISTRIBUTION FOR SECNO=       9.06          CWSEL=   1842.42

STA=     4857.     7110.     7219.     7349.     8360.     8750.
  PER Q=     20.3       0.3      66.6       9.3       3.8
    AREA=   5065.6     130.6    1121.2    2346.2     750.3
     VEL=      0.8       0.5      11.4       0.6       1.0

CCHV=   0.100 CEHV=   0.300
1491 NH CARD USED
*SECNO 9.300

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4850.0     7900.0  TYPE=      1  TARGET=     3850.000
          CL = 7270
      9.30      11.98   1846.38   1846.38   1846.38   1847.26      0.88      2.57      0.05   1847.10
     19150.     3748.    13031.     2371.     1935.     1454.      805.     2097.      713.    1844.70
      0.80       1.94      8.96      2.94      0.042     0.026     0.036     0.000  1834.40   4976.16
 0.002187       1040.     1250.     1070.         3        10         0      0.00  2551.85   7900.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        GLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TIME    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      ANL       ANCH      XNR       WTN       ELPIA       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCBAR     TOPWID      ENDST

FLOW DISTRIBUTION FOR SECNO=       9.30          CWSEL=   1846.38

STA=     4976.     6150.     6842.     7447.     7840.     7900.
  PER Q=      4.2      15.4      68.0      12.1       0.3
    AREA=    938.8     996.3    1453.9     167.4      37.5
     VEL=      0.9       3.0       9.0       3.0       1.4

CCHV=   0.300 CEHV=   0.500
1496 NH CARD USED
*SECNO 9.410

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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 3470 ENCROACHMENT STATIONS=   12700.0   16400.0  TYPE=     1  TARGET=    3700.000
          LAS VEGAS BLVD BRIDGE
          Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
          TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
          CL = 5430
     9.41      9.67  1850.17  1850.17  1850.17  1850.54     0.36     0.86     0.15  1847.90
   19150.     7759.     7519.     3871.     4776.     1015.     1892.     2188.      764.   1846.50
     0.84      1.62      7.41      2.05     0.044     0.025     0.039     0.000  1840.50 12700.00
 0.000983      847.      573.      330.        20        17         0     0.00  3700.00 16400.00
0
 FLOW DISTRIBUTION FOR SECNO=      9.41          CWSEL=   1850.17

 STA=   12700.   13410.   14000.   14250.   14700.   14900.   15065.   15184.   15306.   15370.   15496.   15579.   15735.
   PER Q=    5.8      8.5      3.3      7.2      4.1      3.7      3.1      3.2      1.6     39.3      3.4      4.8
     AREA=   617.0    987.8    511.1   1023.4    394.8    345.3    273.9    280.4    142.4   1014.9    247.6    391.6
      VEL=     1.4      1.6      1.3      1.3      2.0      2.1      2.2      2.2      2.1      7.4      2.6      2.3
 STA=   15735.   15815.   15950.   16400.
   PER Q=    3.6      4.3      4.4
     AREA=   251.7    334.0    666.9
      VEL=     2.7      2.3      1.3

 1490 NH CARD USED
 *SECNO 9.411
1
   5-MAY-68    11:37:58                                                                    PAGE   49

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VCL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 337  NORMAL BRIDGE,NRD= 11 MIN ELTRD= 1849.9  MAX ELLC= 1848.90

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=   12700.0   16400.0  TYPE=     1  TARGET=    3700.000
     9.41     10.58  1851.08  1851.08  1851.08  1851.60     0.52     0.01     0.08  1847.80
   19150.    12381.     4267.     2501.     3943.      394.      913.     2188.      764.   1847.80
     0.84      3.14     10.82      2.74     0.043     0.015     0.041     0.000  1840.50 12700.00
 0.004229        5.        5.        5.        20        10         0 -2790.50  3700.00 16400.00
0
 FLOW DISTRIBUTION FOR SECNO=      9.41          CWSEL=   1851.08

 STA=   12700.   12963.   14000.   14150.   14700.   14900.   15000.   15391.   15459.   16120.   16400.
   PER Q=    3.9     37.6      5.4      7.0      3.6      5.0      2.1     22.3     10.2      2.9
     AREA=   289.2   1956.6    357.2    699.8    236.3    218.1    185.7    394.2    614.5    298.8
      VEL=     2.6      3.7      2.9      1.5      2.9      4.4      2.2     10.8      3.2      1.8

 1490 NH CARD USED
 *SECNO 9.430

 3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 1850.00 MAX ELLC= 1851.00


 3470 ENCROACHMENT STATIONS=   12350.0   15900.0  TYPE=     1  TARGET=    3550.000
          SPLIT FLOW MODELED AS WEIR FLOW OVER LVB; WEIR LENGTH LIMITED TO
          APPROX 1000 FT BY EFFECTIVE FLOW EXPANSION FROM 9.47.
          CL = 5050
     9.43      9.91  1851.71     0.00  1851.71  1852.10     0.39     0.46     0.04  1849.20
   24000.    18757.     3579.     1665.     4721.      393.      608.     2202.      774.   1849.20
     0.85      3.97      9.10      2.74     0.037     0.015     0.036     0.000  1841.60 12350.00
 0.004132      110.      110.      110.         3         0         0  -541.01  3550.00 15900.00
0
```

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1851.71

STA=	12350.	12970.	13300.	13820.	14500.	14680.	15020.	15087.	15750.	15900.
PER Q=	17.3	12.7	21.4	21.9	3.4	1.6	14.9	3.9	3.0	
AREA=	1062.5	685.5	1125.1	1267.3	335.5	245.2	393.1	378.0	230.1	
VEL=	3.9	4.5	4.6	4.1	2.4	1.5	9.1	2.5	3.2	

1

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SECNO	DEPTH	CWSEL	CRIWS	∗SELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	WOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
∗SECNO 9.431

347 ENCROACHMENT STATIONS= 12350.0 15900.0 TYPE= 1 TARGET= 3550.000

9.43	9.87	1851.67	0.00	1851.67	1852.16	0.49	0.01	0.05	1850.00	
24000.	15171.	8761.	2068.	5327.	700.	996.	2203.	774.	1850.00	
0.85	2.35	9.66	2.38	0.038	0.025	0.040	0.000	1841.80	12350.00	
0.002022	5.	5.	5.	2	0	0	0.00	3550.00	15900.00	

6
FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1851.67

STA=	12350.	13700.	14000.	14400.	15000.	15100.	15900.
PER Q=	38.5	8.7	9.4	6.5	28.2	8.6	
AREA=	2905.1	651.1	768.2	1002.2	700.0	996.3	
VEL=	3.2	3.2	2.9	1.6	9.7	2.1	

1490 NH CARD USED
∗SECNO 9.470

3470 ENCROACHMENT STATIONS= 4940.0 8521.0 TYPE= 1 TARGET= 3581.000
CL = 7740

9.47	9.90	1852.20	0.00	1852.20	1852.59	0.39	0.40	0.03	1852.00	
24000.	12923.	8156.	2916.	5472.	1020.	1454.	2235.	789.	1850.70	
0.86	2.36	8.00	2.81	0.052	0.027	0.060	0.000	1842.30	4940.04	
0.002286	185.	185.	185.	2	0	0	0.00	3580.96	8521.00	

L
FLOW DISTRIBUTION FOR SECNO= 9.47 CWSEL= 1852.20

STA=	4940.	5380.	5631.	5861.	6040.	6171.	6298.	6412.	6568.	6675.	6804.	6928.	7041.
PER Q=	3.6	4.1	3.6	4.1	3.0	4.1	3.4	4.1	4.1	4.7	3.4	4.1	
AREA=	567.5	512.4	456.7	446.6	330.6	393.5	337.5	424.3	363.8	306.3	249.5	269.3	
VEL=	1.5	1.9	1.9	2.2	2.2	2.5	2.4	2.3	2.7	3.6	3.3	3.6	
STA=	7041.	7142.	7345.	7655.	7845.	8129.	8324.	8512.	8521.				
PER Q=	3.2	3.1	1.5	34.0	3.9	4.7	3.5	0.1					
AREA=	221.0	299.9	293.4	1019.6	525.3	502.4	409.7	16.6					
VEL=	3.4	2.4	1.2	8.0	1.8	2.2	2.0	1.6					

1

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TN BREAKOUT OVER ROB ABOVE LAMB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
574.9	0.79	2.59	1.24	2050.0	465.4

ASG	QCOMP	ERRAC	TASG	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
453.22	453.43	0.05	453.22	453.43	0.05	13	1785.585	1793.141	6.760	7.140

TN BREAKOUT OVER LOB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
409.9	1.23	1.58	0.79	1930.0	517.3

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
466.81	504.36	7.85	920.03	958.39	4.08	13	1802.721	1816.685	7.610	7.970

TN BREAKOUT OVER LOB RIDGE

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1106.3	2.86	1.97	0.84	1450.0	1317.0

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
2196.99	2279.66	3.69	3117.32	3238.06	3.81	13	1816.685	1825.974	7.970	8.270

TN BREAKOUT OVER PECOS RD U/S LAKE MEAD

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1710.3	1.87	1.99	0.85	2010.0	2010.0

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
1855.48	1827.64	1.51	4972.50	5065.69	1.86	13	1825.974	1830.979	8.270	8.610

TN BREAKOUT OVER PECOS RD - LAKE MEAD TO CAREY

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1675.8	0.93	0.97	0.83	2090.0	2020.2

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
1563.17	1563.82	0.04	6535.68	6629.51	1.43	13	1830.570	1838.166	8.610	8.900

TN BREAKOUT OVER PECOS RD - CAREY TO LVB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
289.5	0.44	0.91	0.45	2800.0	638.2

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
128.30	128.29	0.00	6663.97	6757.81	1.40	13	1838.166	1851.707	8.900	9.430

TW WEIR OVER LVB EAST OF PECOS - GOES TO OVERBANK MODEL

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
4722.08	4722.07	0.00	11386.08	11479.68	0.82	13	1851.081	1851.707	9.411	9.430

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - LAMB EL

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6.710	0.00	0.00	0.00	1769.30	11723.75	1784.00	0.00	1785.79	28.01	10.74	1091.27	2215.14
	6.710	0.00	0.00	0.00	1769.30	23546.78	1785.00	0.00	1785.34	12.53	7.49	14348.28	6653.35
	6.750	220.00	0.00	0.00	1770.90	11723.75	1785.78	0.00	1786.38	5.50	6.24	1893.10	5001.00
	6.750	220.00	0.00	0.00	1770.90	23546.78	1785.29	0.00	1785.50	4.58	5.56	19054.78	10997.16
	6.751	5.00	1783.00	1783.00	1770.90	11723.75	1785.67	0.00	1786.50	43.37	7.30	1619.25	1780.26
	6.751	5.00	1783.00	1783.00	1770.90	23546.78	1785.52	0.00	1785.56	6.60	2.82	20856.20	9164.71
	6.760	100.00	1783.00	1783.20	1771.10	11723.75	1786.16	0.00	1786.92	38.05	7.02	1674.94	1900.65
	6.760	100.00	1783.00	1783.20	1771.10	23546.78	1785.59	0.00	1785.63	7.69	3.05	19652.01	8493.30
	6.761	220.00	0.00	0.00	1771.10	11723.75	1786.66	0.00	1787.21	4.63	5.93	1982.34	5445.59
	6.761	220.00	0.00	0.00	1771.10	23546.78	1785.61	0.00	1785.79	4.16	5.32	19970.12	11549.72
*	6.920	330.00	0.00	0.00	1777.70	11723.75	1788.63	1788.63	1792.84	72.59	16.45	712.53	1376.06
*	6.920	330.00	0.00	0.00	1777.70	23546.78	1791.37	1791.37	1791.37	0.41	1.44	54051.31	36641.26
*	7.140	1200.00	0.00	0.00	1779.20	10135.79	1794.92	0.00	1795.12	6.68	4.45	4538.18	3863.96
*	7.140	1200.00	0.00	0.00	1779.20	13067.18	1793.14	1793.14	1794.33	52.49	9.90	2455.40	1803.56
*	7.340	1050.00	0.00	0.00	1785.50	10135.79	1794.47	1794.47	1797.82	50.63	14.69	690.15	1424.44
	7.340	1050.00	0.00	0.00	1785.50	13067.18	1796.24	0.00	1799.66	41.68	14.84	880.49	2023.94
	7.600	1360.00	0.00	0.00	1793.80	10135.79	1801.44	0.00	1803.09	25.64	10.32	981.73	2001.62
	7.600	1360.00	0.00	0.00	1793.80	13067.18	1802.55	0.00	1804.54	26.34	11.31	1155.07	2546.17
	7.601	5.00	1803.80	1803.90	1793.80	10135.79	1801.17	0.00	1803.39	58.17	11.94	848.64	1328.92
	7.601	5.00	1803.80	1803.90	1793.80	13067.18	1802.23	0.00	1804.90	62.41	13.11	996.47	1654.01
	7.610	70.00	1803.80	1803.90	1793.80	10135.79	1801.57	0.00	1803.81	58.44	12.00	844.43	1325.94
	7.610	70.00	1803.80	1803.90	1793.80	13067.18	1802.72	1802.06	1805.60	122.58	13.61	959.93	1180.24

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	7.611	5.00	0.00	0.00	1793.90	10135.79	1803.15	0.00	1804.18	12.83	8.16	1242.38	2829.89
	7.611	5.00	0.00	0.00	1793.90	13067.18	1805.12	0.00	1806.16	9.93	8.24	1882.22	4146.45
	7.680	280.00	0.00	0.00	1794.50	10135.79	1803.05	0.00	1805.42	36.96	12.37	819.22	1667.26
	7.680	280.00	0.00	0.00	1794.50	13067.18	1804.92	0.00	1807.24	28.78	12.23	1068.77	2435.66
*	7.970	1610.00	0.00	0.00	1806.00	10165.20	1815.60	1815.60	1817.11	23.95	10.73	1286.03	2077.02
*	7.970	1610.00	0.00	0.00	1806.00	13533.99	1816.68	1816.68	1817.83	18.65	10.25	2711.66	3133.51
*	8.190	1140.00	0.00	0.00	1810.60	10165.20	1821.14	1821.14	1825.73	80.95	17.20	551.10	1129.84
*	8.190	1140.00	0.00	0.00	1810.60	13533.99	1824.69	1824.69	1826.27	26.29	11.76	4126.06	2639.32
	8.270	330.00	0.00	0.00	1813.70	10432.20	1824.92	0.00	1827.20	21.73	12.12	860.98	2238.01

	SECNO	XLCH	ELTRD	ELLC	ELMIN	G	C*SEL	CRI*S	EG	10K*S	VCH	AREA	.01K
*	8.270	330.00	0.00	0.00	1813.70	15730.98	1825.97	1825.97	1827.54	18.02	11.82	3310.77	3705.46
	8.271	5.00	1823.20	1821.70	1813.70	10432.20	1826.90	1825.36	1827.66	20.04	7.94	1565.52	2330.16
*	8.271	5.00	1823.20	1821.70	1813.70	15730.98	1826.08	1826.08	1827.17	45.87	11.38	3220.79	2322.74
*	8.310	235.00	1823.20	1822.00	1814.00	10432.20	1827.39	1827.39	1829.64	59.04	13.30	1445.85	1357.64
*	8.310	235.00	1823.20	1822.00	1814.00	15730.98	1827.43	1827.43	1828.45	45.01	11.65	6576.36	2344.76
	8.311	5.00	0.00	0.00	1814.00	10432.20	1829.80	0.00	1830.20	2.54	5.37	3038.62	6546.09
	8.311	5.00	0.00	0.00	1814.00	15730.98	1827.86	0.00	1828.56	6.47	7.75	8508.37	6185.49
	8.610	1560.00	0.00	0.00	1818.90	10721.21	1830.11	0.00	1831.24	15.94	9.19	2330.30	2684.95
*	8.610	1560.00	0.00	0.00	1818.90	17586.46	1830.97	1830.97	1832.97	30.35	12.66	3000.01	3192.38
*	8.850	1250.00	0.00	0.00	1824.40	10721.21	1832.40	1832.40	1835.83	51.37	14.86	721.72	1495.91
*	8.850	1250.00	0.00	0.00	1824.40	17586.46	1836.67	1836.67	1838.29	21.60	11.37	6086.84	3783.78
	8.900	230.00	0.00	0.00	1825.20	10722.47	1835.61	0.00	1837.07	17.97	9.70	1105.30	2529.42
*	8.900	230.00	0.00	0.00	1825.20	19149.63	1838.17	1838.17	1839.72	17.38	10.85	6392.78	4593.79
*	8.901	5.00	1837.80	1832.40	1825.20	10722.47	1838.67	1838.67	1839.21	56.44	10.00	5556.77	1427.26
	8.901	5.00	1837.80	1832.40	1825.20	19149.63	1839.97	1838.86	1840.14	24.27	7.42	13686.92	3887.13
	8.910	70.00	1837.80	1832.80	1825.60	10722.47	1839.41	0.00	1839.57	24.33	6.57	7895.31	2173.84
	8.910	70.00	1837.80	1832.80	1825.60	19149.63	1840.19	0.00	1840.31	21.38	6.78	14690.67	4141.15
	8.911	5.00	0.00	0.00	1825.60	10722.47	1839.34	0.00	1839.65	3.06	5.83	8831.92	6132.42
	8.911	5.00	0.00	0.00	1825.60	19149.63	1840.01	0.00	1840.51	5.63	8.18	14965.38	8068.45
*	9.060	820.00	0.00	0.00	1828.10	10722.47	1840.57	1840.57	1842.59	23.89	10.61	2850.01	2193.82
*	9.060	820.00	0.00	0.00	1828.10	19149.63	1842.42	1842.42	1843.76	21.54	11.37	9413.90	4125.96
*	9.300	1250.00	0.00	0.00	1834.40	10722.47	1845.36	1845.36	1846.25	21.57	7.96	2254.29	2308.62
*	9.300	1250.00	0.00	0.00	1834.40	19149.63	1846.38	1846.38	1847.26	21.87	8.96	4194.34	4094.56
*	9.410	570.00	0.00	0.00	1840.50	10722.47	1849.81	1849.81	1850.16	7.40	6.23	4768.52	3941.74
*	9.410	570.00	0.00	0.00	1840.50	19149.63	1850.17	1850.17	1850.54	9.83	7.41	7682.84	6107.91

	SECNO	XLCH	ELTRD	ELLC	ELMIN	G	C*SEL	CRI*S	EG	10K*S	VCH	AREA	.01K
*	9.411	5.00	1849.90	1848.90	1840.50	10722.47	1850.55	1850.55	1851.06	31.20	9.30	3673.16	1919.54
*	9.411	5.00	1849.90	1848.90	1840.50	19149.63	1851.08	1851.08	1851.60	42.29	10.82	5250.31	2944.86
	9.430	110.00	1850.00	1851.00	1841.80	13000.00	1851.15	0.00	1851.48	34.58	8.11	3862.85	2210.67
	9.430	110.00	1850.00	1851.00	1841.80	24000.00	1851.71	0.00	1852.10	41.32	9.10	5722.22	3733.47
	9.431	5.00	0.00	0.00	1841.80	13000.00	1851.15	0.00	1851.49	13.03	7.36	5164.75	3602.06
	9.431	5.00	0.00	0.00	1841.80	24000.00	1851.67	0.00	1852.16	20.22	9.66	7022.95	5337.07
*	9.470	185.00	0.00	0.00	1842.30	13000.00	1852.08	1852.08	1852.21	7.76	4.59	7524.49	4667.84
	9.470	185.00	0.00	0.00	1842.30	24000.00	1852.20	0.00	1852.59	22.86	8.00	7946.06	5019.87

LAS VEGAS WASH - LAMB BL

SUMMARY PRINTOUT TABLE 150

SECNO	Q	C*SEL	DIFWSP	DIF*SX	DIFK*S	TOP*ID	XLCH
6.710	11723.75	1784.00	0.00	0.00	0.00	95.18	0.00

	6.710	23546.78	1785.00	1.00	0.00	0.00	9439.00	0.00
	6.750	11723.75	1785.78	0.00	1.76	0.00	150.00	220.00
	6.750	23546.78	1785.29	-0.48	0.29	0.00	9136.25	220.00
	6.751	11723.75	1785.67	0.00	-0.10	0.00	150.00	5.00
	6.751	23546.78	1785.52	-0.15	0.23	0.00	9173.38	5.00
	6.760	11723.75	1786.16	0.00	0.48	0.00	146.00	100.00
	6.760	23546.78	1785.59	-0.57	0.07	0.00	9151.24	100.00
	6.761	11723.75	1786.66	0.00	0.51	0.00	146.00	220.00
	6.761	23546.78	1785.61	-1.06	0.02	0.00	9152.77	220.00
*	6.920	11723.75	1793.63	0.00	1.97	0.00	84.74	830.00
*	6.920	23546.78	1791.37	2.74	5.76	0.00	10626.33	830.00
	7.140	10135.79	1794.92	0.00	6.29	0.00	1170.00	1200.00
*	7.140	13067.18	1793.14	-1.78	1.77	0.00	1172.05	1200.00
*	7.340	10135.79	1794.47	0.00	-0.45	0.03	103.47	1050.00
	7.340	13067.18	1796.24	1.77	3.10	0.00	111.85	1050.00
	7.600	10135.79	1801.44	0.00	6.96	0.03	152.11	1360.00
	7.600	13067.18	1802.55	1.11	8.31	0.01	158.99	1360.00
	7.601	10135.79	1801.17	0.00	-0.26	0.03	137.05	5.00
	7.601	13067.18	1802.23	1.05	-0.32	0.01	143.34	5.00
	7.610	10135.79	1801.57	0.00	0.40	0.03	132.61	70.00
	7.610	13067.18	1802.72	1.15	0.49	0.01	169.31	70.00
	7.611	10135.79	1803.15	0.00	1.58	0.03	162.69	5.00
	7.611	13067.18	1805.12	1.97	2.40	0.02	605.92	5.00
	7.680	10135.79	1803.05	0.00	-0.10	0.03	126.98	280.00
	7.680	13067.18	1804.92	1.87	-0.20	0.02	139.46	280.00
*	7.970	10165.20	1815.60	0.00	12.55	0.02	602.88	1610.00
*	7.970	13533.99	1816.68	1.08	11.77	0.05	1785.30	1610.00
*	8.190	10165.20	1821.14	0.00	5.54	0.03	69.21	1140.00
*	8.190	13533.99	1824.69	3.55	8.00	-0.14	2144.93	1140.00
	8.270	10432.20	1824.92	0.00	3.78	0.05	88.00	330.00
*	8.270	15730.98	1825.97	1.06	1.28	-0.01	1557.14	330.00

SECNO	Q	CHSEL	DIFHSF	DIFHSX	DIFKHS	TOPHID	XLCH
8.271	10432.20	1826.90	0.00	1.98	0.07	287.16	5.00
* 8.271	15730.98	1826.08	-0.82	0.10	0.00	1557.13	5.00
* 8.310	10432.20	1827.39	0.00	0.49	0.02	370.00	235.00
* 8.310	15730.98	1827.43	0.04	1.35	0.00	2880.00	235.00
8.311	10432.20	1829.80	0.00	2.41	0.02	370.00	5.00
8.311	15730.98	1827.86	-1.94	0.43	0.00	288 .00	5.00
8.610	10721.21	1830.11	0.00	0.32	0.03	664.12	1560.00
• 8.610	17586.46	1830.97	0.86	3.11	0.00	870.62	1560.00
* 8.850	10721.21	1832.40	0.00	2.29	0.01	106.63	1250.00
* 8.850	17586.46	1836.67	4.27	5.70	0.00	2999.16	1250.00

	8.900	10722.47	1835.61	0.00	3.21	0.00	143.56	230.00
*	8.900	19149.63	1838.17	2.56	1.49	0.00	4338.23	230.00
*	8.901	10722.47	1838.67	0.00	3.86	0.00	3076.48	5.00
	8.901	19149.63	1839.97	1.30	1.81	0.00	4830.00	5.00
	8.910	10722.47	1839.41	0.00	0.74	0.00	3300.00	70.00
	8.910	19149.63	1840.19	0.78	0.22	0.00	483 .00	70.00
	8.911	10722.47	1839.34	0.00	-0.07	0.00	3300.00	5.00
	8.911	19149.63	1840.01	0.67	-0.19	0.00	4830.00	5.00
*	9.060	1 722.47	1840.97	0.00	1.63	0.00	2287.62	820.00
*	9.060	19149.63	1842.42	1.45	2.42	0.00	3892.86	820.00
*	9.300	10722.47	1845.36	0.00	4.38	0.00	1320.79	1250.00
*	9.300	19149.63	1846.38	1.02	3.96	0.00	2551.85	1250.00
*	9.410	10722.47	1849.81	0.00	4.45	0.00	2764.34	570.00
*	9.410	19149.63	1850.17	0.37	3.79	0.00	3700.00	570.00
•	9.411	10722.47	1850.55	0.00	0.75	0.00	3700.00	5.00
•	9.411	19149.63	1851.08	0.53	0.91	0.00	3700.00	5.00
	9.430	13000.00	1851.15	0.00	0.59	0.00	3402.97	110.00
	9.430	24000.00	1851.71	0.56	0.63	0.00	3550.00	110.00
	9.431	13000.00	1851.15	0.00	0.00	0.00	3550.00	5.00
	9.431	24000.00	1851.67	0.52	-0.04	0.00	3550.00	5.00
*	9.470	13000.00	1852.08	0.00	0.93	0.00	3569.17	185.00
	9.470	24000.00	1852.20	0.12	0.53	0.00	3580.96	185.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	6.920	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	6.920	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	6.920	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	6.920	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	6.920	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	6.920	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	7.140	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	7.140	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	7.140	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	7.340	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	7.340	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	7.340	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	7.970	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	7.970	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	7.970	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	7.970	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	7.970	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	7.970	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	8.190	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	8.190	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	8.190	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	8.190	PROFILE= 2	CRITICAL DEPTH ASSUMED

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CAUTION  SECNO=    8.190  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.190  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.270  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.270  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.270  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.271  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.271  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.310  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.310  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.310  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    8.310  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.310  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=    8.610  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.610  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.610  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.850  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.850  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.850  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.850  PROFILE= 2  MINIMUM SPECIFIC ENERGY
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  5-MAY-88    11:37:58                                                    PAGE   59


CAUTION  SECNO=    8.900  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.900  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=    8.901  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.901  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.901  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    9.060  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.060  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.060  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    9.060  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.060  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.060  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    9.300  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.300  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.300  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.300  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=    9.410  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.410  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.410  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    9.410  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.410  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.410  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    9.411  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.411  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.411  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    9.411  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.411  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.411  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    9.470  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.470  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.470  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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  5-MAY-88    11:54:33                                                    PAGE    1
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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**********************************************


EOF..
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1**********************************************
 *  WATER SURFACE PROFILES                    *
 *  VERSION OF NOVEMBER 1976                  *
 *  UPDATED AUGUST 1983                       *
 *                                            *
 *  RUN DATE  28-APR-88 TIME   17:55:10       *
 **********************************************
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**********************************************
*  U.S. ARMY CORPS OF ENGINEERS              *
*  THE HYDROLOGIC ENGINEERING CENTER         *
*  609 SECOND STREET, SUITE D                *
*  DAVIS, CALIFORNIA 95616                   *
*  (916) 440-2105 (FTS) 448-2105             *
**********************************************
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X            X     X
X      X  X         X                  X     X
XXXXXXXX  XXXX      X           XXXXX   XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**********************************************

C
T1      CORFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3      LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - NONDAMAGING FLOWS

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        0.        2.        0.        0.  0.002000      0.00      0.0       0.  1780.900     0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000


QT       4.000  6400.000 13000.000 24000.000 84000.000     0.000     0.000     0.000     0.000     0.000
ET       0.000     0.000     0.000     0.000     0.100     0.000     0.000     0.000 19300.000     0.000
NC       0.070     0.080     0.030     0.100     0.300     0.000     0.000     0.000     0.000     0.000
NH       9.000     0.130  4690.000     0.100 13425.000     0.130 14809.000     0.130 14942.000     0.035
NH   15039.000     0.045 16195.000     0.100 16755.000     0.045 21140.000     0.130 22860.000     0.000
X1       6.710    42.000 14942.000 15039.000   650.000   450.000   780.000     0.000     0.000     0.000
X4       2.000  1790.000  5200.000  1785.000  5600.000     0.000     0.000     0.000     0.000     0.000
X3      10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    1796.000  2685.000  1792.000  3960.000  1792.000  4690.000  1784.000  8200.000  1784.000 12020.000
GR    1784.000 13425.000  1780.000 14065.000  1780.000 14660.000  1777.400 14809.000  1777.600 14835.000
GR    1778.500 14910.000  1779.000 14914.000  1784.800 14942.000  1773.000 14956.000  1769.300 14987.000
GR    1769.300 14997.000  1769.300 15012.000  1771.900 15025.000  1784.800 15039.000  1781.900 15040.000
GR    1781.900 15071.000  1781.000 15110.000  1781.300 15136.000  1781.200 15150.000  1781.200 15167.000
GR    1780.000 15195.000  1782.100 15222.000  1782.100 15298.000  1781.800 15387.000  1779.800 15404.000
GR    1779.800 15461.000  1781.600 15472.000  1781.000 15531.000  1780.000 15640.000  1780.000 15710.000
GR    1782.000 16195.000  1782.000 16755.000  1784.000 21140.000  1784.000 21860.000  1788.000 22235.000
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GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	8.100	0.000	0.000	0.000	14050.000	0.000
NC	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000

LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q50 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

X1	6.750	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10073.000	0.000	14050.000	0.000
X1	6.751	32.000	9928.000	10072.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1771.400	10047.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	9928.000	1783.000	1782.000	9547.000	1783.000	1782.000	10053.000	1783.000	1782.000
BT	0.000	10072.000	1783.000	1783.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1771.400	9953.000
GR	1782.000	9953.000	1782.000	9957.000	1771.400	9957.000	1770.900	9998.000	1782.000	9998.000
GR	1782.000	10002.000	1770.900	10002.000	1771.400	10043.000	1782.000	10043.000	1782.000	10047.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10073.000	0.000	14050.000	0.000
X1	6.760	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.200	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10073.000	0.000	14050.000	0.000
X1	6.761	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	0.000	0.000	8.100	0.000	0.000	0.000	14100.000	0.000

CL = 11370

X1	6.920	36.000	11321.000	11410.000	580.000	840.000	830.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1790.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1793.000	680.000	1788.000	1000.000	1788.000	2000.000	1787.000	3500.000	1788.000	4850.000
GR	1785.000	6450.000	1785.000	9200.000	1784.000	9550.000	1784.000	10200.000	1784.000	10200.000
GR	1787.300	11000.000	1787.700	11145.000	1786.500	11169.000	1786.600	11200.000	1787.000	11289.000
GR	1791.000	11321.000	1781.800	11334.000	1777.700	11357.000	1777.700	11366.000	1779.000	11378.000
GR	1781.000	11406.000	1790.900	11410.000	1786.900	11426.000	1790.000	11437.000	1789.900	11504.000
GR	1788.300	11551.000	1788.100	11559.000	1788.100	11578.000	1788.100	11605.000	1788.100	11612.000
GR	1788.600	11622.000	1786.000	12100.000	1786.000	12300.000	1788.000	13600.000	1788.000	16450.000
GR	1792.000	17230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	11200.000	12370.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CL = 12260

X1	7.141	31.000	12150.000	12369.000	580.000	1250.000	1200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	450.000	1791.000	1050.000	1790.000	1500.000	1789.500	2300.000	1788.000	3700.000
GR	1789.000	4600.000	1789.000	6200.000	1788.000	7200.000	1788.000	10450.000	1792.500	11200.000

GR	1791.000	12000.000	1791.000	12114.000	1791.000	12150.000	1787.000	12224.000	1779.200	12259.000
GR	1779.200	12265.000	1782.400	12272.000	1785.600	12280.000	1792.000	12293.000	1792.000	12312.000
GR	1798.600	12369.000	1791.600	12391.000	1793.100	12412.000	1792.800	12524.000	1792.600	12729.000
GR	1791.500	12873.000	1791.800	12931.000	1792.000	12970.000	1794.000	13300.000	1795.000	14000.000

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GR	1795.000	16200.000	1796.000	16630.000	1800.000	16800.000	0.000	0.000	0.000	0.000
NH	4.000	0.050	10980.000	0.070	12321.000	0.125	12437.000	0.160	13730.000	0.000
	CL = 12378									
X1	7.340	33.000	12321.000	12437.000	600.000	1300.000	1050.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	150.000	1795.000	900.000	1790.000	3500.000	1792.000	5000.000	1792.000	6850.000
GR	1791.000	3600.000	1791.000	9550.000	1792.000	9600.000	1792.000	10000.000	1796.000	10980.000
GR	1796.000	12000.000	1796.300	12048.000	1795.800	12125.000	1796.600	12229.000	1795.700	12268.000
GR	1798.000	12321.000	1786.700	12343.000	1786.200	12358.000	1785.500	12371.000	1787.200	12411.000
GR	1796.500	12437.000	1794.100	12463.000	1794.100	12531.000	1794.100	12538.000	1796.900	12548.000
GR	1797.200	12571.000	1795.300	12600.000	1794.200	12626.000	1794.600	12642.000	1799.600	12656.000
GR	1804.400	12726.000	1800.500	12730.000	1804.000	13730.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING									
	CL = 11490									
X1	7.600	24.000	11410.000	11577.000	1200.000	1350.000	1360.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.300	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11441.000	1793.800	11546.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11790.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11440.000	1802.300	11440.000
GR	1802.300	11443.500	1793.800	11443.500	1793.900	11474.500	1802.300	11474.500	1802.300	11478.000
GR	1793.800	11478.000	1793.800	11509.000	1802.300	11509.000	1802.300	11512.500	1793.800	11512.500
GR	1793.800	11543.500	1802.300	11543.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11790.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11439.000	1802.300	11439.000

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GR	1802.300	11444.500	1793.900	11444.500	1793.900	11473.500	1802.300	11473.500	1802.300	11479.000
GR	1793.900	11479.000	1793.900	11508.000	1802.300	11508.000	1802.300	11513.500	1793.900	11513.500

GR	1793.900	11542.500	1802.300	11542.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.80[illegible]	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	6.000	6.100	0.000	0.000	0.000	11280.000	11790.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.145	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.611	24.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1803.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	9800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11441.000	1793.900	11547.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
NH	6.000	0.040	5800.000	0.070	7700.000	0.040	10500.000	0.120	11640.000	0.025
NH	11930.000	0.160	13620.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 11800									
X1	7.680	32.000	11640.000	11930.000	290.000	220.000	280.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1810.000	400.000	1800.000	1650.000	1799.000	2200.000	1799.000	3750.000	1800.000	4000.000
GR	1802.000	4450.000	1801.000	5800.000	1801.000	6800.000	1801.000	7700.000	1800.000	8070.000
GR	1800.000	8350.000	1797.500	8550.000	1797.500	8700.000	1800.000	9060.000	1799.000	9250.000
GR	1799.000	9400.000	1800.000	9610.000	1804.000	10500.000	1804.400	11000.000	1808.300	11640.000
GR	1806.000	11710.000	1796.000	11760.000	1794.500	11790.000	1794.500	11830.000	1796.000	11840.000
GR	1805.000	11870.000	1809.500	11930.000	1806.500	12200.000	1806.800	12470.000	1808.000	12570.000
GR	1808.000	13100.000	1812.000	13620.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	6.000	6.100	0.000	0.000	0.000	12418.000	12665.000	0.000	0.000	0.000
NC	0.000	0.300	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	3400.000	0.060	12470.000	0.025	12766.000	0.040	13400.000	0.160
NH	14200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 12520									
X1	7.970	34.000	12454.000	12563.000	1750.000	1340.000	1610.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	2.000	1813.000	11000.000	1813.000	11700.000	0.000	0.000	0.000	0.000	0.000
GR	1816.000	500.000	1812.000	1000.000	1810.000	1800.000	1810.000	2400.000	1813.000	3400.000
GR	1811.000	4600.000	1811.000	7500.000	1812.000	8500.000	1810.000	9450.000	1810.000	10000.000
GR	1815.200	12000.000	1815.600	12227.000	1815.600	12313.000	1813.600	12367.000	1815.100	12418.000
GR	1812.800	12442.000	1812.900	12454.000	1812.000	12470.000	1806.500	12503.000	1806.000	12515.000
GR	1806.000	12526.000	1806.700	12540.000	1808.800	12561.000	1812.400	12563.000	1813.700	12597.000
GR	1814.500	12669.000	1813.000	12701.000	1814.000	12736.000	1815.000	12756.000	1816.000	12766.000
GR	1816.700	12794.000	1815.000	13250.000	1816.000	13400.000	1816.000	14200.000	0.000	0.000
NH	6.000	0.040	3800.000	0.060	7800.000	0.050	8941.000	0.030	9014.000	0.050
NH	9204.000	0.140	11140.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE									
	CL = 8980									
X1	8.190	39.000	8941.000	9014.000	1110.000	930.000	1140.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1823.000	300.000	1817.000	1200.000	1816.000	2500.000	1820.000	3800.000	1818.000	4980.000
GR	1819.000	5810.000	1816.000	7030.000	1820.000	7800.000	1820.000	8000.000	1820.000	8000.000
GR	1819.200	8000.000	1819.600	8169.000	1815.400	8408.000	1820.100	8794.000	1820.500	8849.000

GR	1821.500	8875.000	1820.300	8921.000	1822.600	8927.000	1823.900	8941.000	1812.500	8952.000
GR	1810.600	8975.000	1810.600	8988.000	1813.200	9001.000	1814.100	9010.000	1823.500	9014.000
GR	1820.900	9040.000	1823.500	9062.000	1826.700	9084.000	1826.300	9115.000	1820.800	9150.000
GR	1819.500	9163.000	1821.500	9204.000	1822.000	9255.000	1823.000	9550.000	1823.000	10300.000
GR	1823.000	10530.000	1824.000	10650.000	1824.000	10940.000	1824.500	11140.000	0.000	0.000
ET	1.000	6260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4430.000	0.060	9006.000	0.025	9094.000	0.020	9400.000	0.140
NH	10560.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	LAKE MEAD BLVD BRIDGE									
	CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL									
X1	8.270	23.000	9006.000	9094.000	350.000	300.000	330.000	0.000	0.000	0.000

X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1819.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1814.000	9018.000	1813.700	9050.000	1814.000	9082.000
GR	1822.200	9094.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9900.000
GR	1825.000	10050.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
GT	1.000	5380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4430.000	0.060	9006.000	0.015	5095.000	0.030	9400.000	0.140
NH	10560.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

X1	8.271	48.000	9017.000	9095.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
BT	-4.000	9006.000	1824.000	0.000	9017.000	1824.100	1821.700	9025.000	1823.200	1821.700
BT	0.000	9095.000	1823.200	1821.700	0.000	0.000	0.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1819.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9017.000	1813.700	9025.000
GR	1821.700	9028.300	1813.700	9028.300	1813.700	9034.300	1821.700	9034.300	1821.700	9037.600
GR	1813.700	9037.600	1813.700	9043.600	1821.700	9043.600	1821.700	9047.200	1813.700	9047.200
GR	1813.700	9057.200	1821.700	9057.200	1821.700	9060.000	1813.700	9060.000	1813.700	9070.000
GR	1821.700	9073.000	1921.700	9073.000	1813.700	9073.000	1813.700	9083.000	1821.700	9083.000
GR	1821.700	9086.600	1813.700	9086.600	1813.700	9095.000	1823.200	9095.000	1823.200	9095.000
GR	1822.200	9096.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9900.000
GR	1825.000	10050.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8940.000	9140.000	0.000	0.000	0.000
NC	0.055	0.140	0.015	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	8.310	48.000	9040.000	9116.000	235.000	235.000	235.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BI	-5.000	8940.000	1824.000	0.000	9040.000	1824.100	1822.000	9046.000	1823.200	1822.000
BT	0.000	9116.000	1824.100	1822.000	9120.000	1824.100	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9040.000	1814.000	9040.000	1814.000	9046.000
GR	1822.000	9046.000	1822.000	9051.300	1814.000	9051.300	1814.000	9055.300	1822.000	9055.300
GR	1822.000	9060.600	1814.000	9060.600	1814.000	9064.600	1822.000	9064.600	1822.000	9070.200

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GR	1814.000	9070.200	1814.000	9078.200	1822.000	9078.200	1822.000	9083.000	1814.000	9083.000
GR	1814.000	9091.000	1822.000	9091.000	1822.000	9096.000	1814.000	9096.000	1814.000	9104.000
GR	1822.000	9104.000	1822.000	9109.600	1814.000	9109.600	1814.000	9116.000	1824.000	9116.000
GR	1824.000	9120.000	1826.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
GT	1.000	5520.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8900.000	9270.000	0.000	0.000	0.000
NC	0.055	0.140	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	8.311	23.000	9014.000	9140.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	1814.500	9034.000	1814.000	9075.000
GR	1814.500	9120.000	1824.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.040	2020.000	0.060	3700.000	0.160	5380.000	0.040	7000.000	0.160
NH	7863.000	0.025	8094.000	0.160	11250.000	0.000	0.000	0.000	0.000	0.000
X1	8.610	39.000	7863.000	8094.000	1570.000	1370.000	1560.000	0.000	0.000	0.000

X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	3.000	1830.500	2900.000	1830.000	7400.000	1832.000	7700.000	0.000	0.000	0.000
GR	1832.000	0.000	1830.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.000	5970.000	1827.100	6250.000	1827.000	6730.000	1830.000	6880.000	1825.100	7000.000
GR	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000
GR	1832.700	7754.000	1830.200	7793.000	1830.200	7836.000	1832.800	7863.000	1832.600	7923.000
GR	1829.900	7952.000	1822.700	7970.000	1818.900	8025.000	1826.100	8039.000	1822.100	8062.000
GR	1830.300	8077.000	1832.300	8094.000	1832.300	8135.000	1832.400	8173.000	1832.000	8180.000
GR	1832.000	8710.000	1832.000	9180.000	1832.000	9230.000	1832.000	10070.000	1832.400	10360.000
GR	1833.000	10500.000	1834.000	10750.000	1834.000	11100.000	1836.000	11250.000	0.000	0.000
NH	4.000	0.040	1700.000	0.160	7007.000	0.025	7188.000	0.160	11180.000	0.000
X1	8.850	49.000	7007.000	7188.000	1370.000	1200.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.000	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	1833.300	5000.000	1834.200	5102.000	1833.900	5248.000	1834.600	5315.000
GR	1833.900	5362.000	1834.000	5458.000	1834.200	5626.000	1834.000	5773.000	1833.500	5856.000
GR	1833.700	5977.000	1834.600	6004.000	1834.800	6111.000	1832.700	6220.000	1837.700	6395.000
GR	1837.700	6554.000	1838.100	6837.000	1838.800	6858.000	1839.400	6879.000	1837.500	6900.000
GR	1837.200	6953.000	1837.000	6981.000	1837.600	7007.000	1834.400	7013.000	1833.000	7025.000
GR	1827.300	7031.000	1825.100	7044.000	1824.400	7064.000	1824.400	7099.000	1826.200	7119.000
GR	1825.900	7122.000	1833.500	7134.000	1835.600	7142.000	1837.700	7163.000	1837.800	7188.000
GR	1837.800	7250.000	1838.000	7420.000	1838.000	8170.000	1835.500	8550.000	1835.700	9570.000
GR	1836.000	10083.000	1840.000	10450.000	1842.000	10870.000	1844.000	11180.000	0.000	0.000
GT	1.000	5450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	8.900	35.000	5910.000	10070.000	170.000	360.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1827.500	4500.000	1827.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.500	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1827.800	9890.000
GR	1837.800	9910.000	1827.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000
GR	1838.000	10019.000	1838.000	10270.000	1835.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.901	50.000	9950.000	10019.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.400
BT	0.000	9938.000	1838.700	1832.400	10019.000	1838.500	1832.400	10070.000	1838.200	0.000
BT	0.000	11270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1827.500	4500.000	1827.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.500	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1827.800	9890.000
GR	1837.800	9910.000	1827.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000
GR	1838.000	10019.000	1838.000	10270.000	1835.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
ET	0.000	6.100	0.000	0.000	0.000	9890.000	10430.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	8.910	50.000	9950.000	10018.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	3.000	1840.000	2800.000	1836.500	6960.000	1838.100	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.800
BT	0.000	9988.000	1838.700	1832.800	10018.000	1838.500	1832.800	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9911.000	1838.000	9945.000	1828.600	9960.000	1825.600	9958.000	1832.800	9958.000
GR	1832.800	9965.000	1825.600	9965.000	1828.600	9973.000	1832.800	9973.000	1832.800	9980.000
GR	1825.600	9980.000	1825.600	9988.000	1832.800	9988.000	1832.800	9995.000	1825.600	9995.000
GR	1825.600	10003.000	1832.800	10003.000	1832.800	10010.000	1825.600	10010.000	1825.600	10018.000
GR	1838.000	10018.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000

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GT	1.000	5520.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9910.000	10500.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.911	35.000	9945.000	10025.000	5.000	5.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	2.000	1840.000	2800.000	1836.500	6960.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9911.000	1838.000	9945.000	1828.600	9960.000	1825.600	10015.000	1828.000	10025.000
GR	1836.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000

GT	1.000	3875.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7186.000	7361.000	0.000	0.000	0.000
NH	5.000	0.040	2000.000	0.160	7219.000	0.025	7349.000	0.160	8360.000	0.110
NH	10960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.006	32.000	7219.000	7349.000	650.000	830.000	820.000	0.000	0.000	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2000.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4830.000	1842.500	4850.000	1840.900	5000.000	1840.000	5350.000	1840.000	7110.000
GR	1842.300	7186.000	1840.500	7219.000	1840.700	7238.000	1833.300	7255.000	1828.100	7301.000
GR	1832.100	7328.000	1841.100	7349.000	1841.900	7361.000	1840.300	7375.000	1840.700	7406.000
GR	1840.300	7451.000	1840.000	7670.000	1840.000	8360.000	1841.000	8750.000	1841.200	9140.000
GR	1842.000	9180.000	1842.500	9450.000	1843.100	9900.000	1844.000	10100.000	1846.000	10510.000
GR	1846.000	10700.000	1846.500	10960.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4000.000	0.160	4850.000	0.035	5750.000	0.130	6630.000	0.030
NH	7212.000	0.026	7447.000	0.036	7500.000	0.050	8700.000	0.160	11320.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	6990.000	7500.000	0.000	0.000	0.000
X1	9.300	39.000	7212.000	7447.000	1040.000	1070.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	7500.000	1846.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	1000.000	1845.000	1880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1848.000	4850.000	1846.800	4950.000	1846.000	5000.000	1846.000	5300.000	1845.700	5430.000
GR	1846.200	5750.000	1843.500	6150.000	1847.000	6990.000	1847.000	7162.000	1847.100	7212.000
GR	1837.800	7232.000	1835.200	7252.000	1834.400	7263.000	1837.800	7291.000	1842.100	7307.000
GR	1841.400	7327.000	1840.400	7346.000	1840.900	7376.000	1841.200	7390.000	1840.200	7407.000
GR	1843.800	7422.000	1844.700	7447.000	1843.400	7468.000	1845.500	7840.000	1846.000	7900.000
GR	1845.500	7980.000	1845.500	8700.000	1845.500	9520.000	1846.000	9760.000	1848.000	10000.000
GR	1850.000	10400.000	1850.000	11080.000	1851.300	11150.000	1852.000	11320.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	4900.000	6120.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.025	
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	8900.000	0.000	0.000	0.000	

X1	9.410	43.000	5370.000	5496.000	840.000	330.000	570.000	0.000	0.000	0.000	0.000
X4	3.000	1850.000	-300.000	1850.000	1800.000	1848.500	3410.000	0.000	0.000	0.000	0.000
GR	1853.000	-800.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000	
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000	
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000	
GR	1847.900	5264.000	1847.900	5306.000	1846.000	5352.000	1847.900	5370.000	1847.800	5389.000	
GR	1840.500	5417.000	1840.500	5461.000	1845.400	5480.000	1846.500	5496.000	1847.400	5535.000	
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000	
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000	
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1850.000	7650.000	
GR	1850.000	8000.000	1852.000	8280.000	1854.000	8900.000	0.000	0.000	0.000	0.000	

ET	0.000	6.100	0.000	0.000	0.000	4500.000	6120.000	0.000	0.000	0.000	
NH	8.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.015	
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	8900.000	0.000	0.000	0.000	
X1	9.411	58.000	5391.000	5459.000	5.000	5.000	5.000	0.000	0.000	0.000	
X4	1.000	1848.500	3410.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	
BT	-19.000	2760.000	1849.900	1849.900	3410.000	1849.000	1848.500	4000.000	1848.900	1848.500	
BT	0.000	4250.000	1849.900	1847.900	5065.000	1849.900	1847.900	5184.000	1850.700	1847.900	
BT	0.000	5264.000	1851.300	1847.900	5391.000	1851.400	1847.800	5459.000	1851.400	1847.800	
BT	0.000	5559.000	1851.000	1847.800	5676.000	1851.000	1848.900	5735.000	1851.000	1846.100	
BT	0.000	5762.000	1851.000	1848.300	5950.000	1851.100	1848.200	6200.000	1850.100	1848.300	
BT	0.000	6600.000	1850.100	1849.000	7400.000	1850.100	1849.000	7650.000	1850.100	1850.000	
BT	0.000	8000.000	1850.000	1850.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1850.000	1800.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000	
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000	
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000	
GR	1847.900	5264.000	1847.900	5306.000	1846.000	5352.000	1847.900	5370.000	1847.800	5391.000	
GR	1840.500	5391.000	1840.500	5401.000	1847.800	5401.000	1847.800	5404.000	1840.500	5404.000	
GR	1840.500	5415.000	1847.800	5415.000	1847.800	5418.000	1840.500	5418.000	1840.500	5429.000	
GR	1847.800	5429.000	1847.800	5434.000	1840.500	5434.000	1840.500	5445.000	1847.800	5445.000	
GR	1847.800	5448.000	1840.500	5448.000	1840.500	5459.000	1847.800	5459.000	1847.400	5535.000	
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000	
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000	
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1850.000	7650.000	
GR	1850.000	8000.000	1852.000	8280.000	1854.000	8900.000	0.000	0.000	0.000	0.000	

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000	
NH	5.000	0.050	2350.000	0.035	4500.000	0.060	5000.000	0.015	5120.000	0.040	
NH	8630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
ET	0.000	5.100	0.000	0.000	5000.000	5100.000	0.000	0.000	0.000	0.000	
X1	9.430	48.000	5020.000	5087.000	110.000	110.000	110.000	0.000	0.000	0.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1851.000	1851.000	0.000	
BT	-14.000	4400.000	1850.000	1850.000	5000.000	1851.400	1850.000	5020.000	1851.400	1849.100	
BT	0.000	5087.000	1850.100	1849.100	5120.000	1851.000	1851.000	5400.000	1851.800	1851.000	
BT	0.000	5500.000	1851.200	1850.000	5600.000	1851.000	1850.000	5750.000	1850.200	1850.000	
BT	0.000	6120.000	1850.000	1850.000	7200.000	1850.100	1849.500	7450.000	1850.600	1850.000	
BT	0.000	8150.000	1852.700	1852.000	8630.000	1854.200	0.000	0.000	0.000	0.000	
GR	1850.000	1500.000	1849.000	1750.000	1849.000	2250.000	1849.000	2250.000	1849.000	2250.000	
GR	1850.000	2350.000	1850.000	2350.000	1850.000	2350.000	1849.500	2450.000	1849.500	3700.000	
GR	1849.500	4000.000	1850.000	4400.000	1850.000	5000.000	1849.200	5020.000	1841.800	5020.000	
GR	1841.800	5029.000	1849.100	5029.000	1849.100	5034.000	1841.800	5034.000	1841.800	5043.000	
GR	1849.100	5043.000	1849.100	5048.000	1841.800	5048.000	1841.800	5057.000	1849.100	5057.000	
GR	1849.100	5064.000	1841.800	5064.000	1841.800	5073.000	1849.100	5073.000	1849.100	5078.000	

1

GR	1841.800	5078.000	1841.800	5087.000	1849.200	5087.000	1849.200	5087.000	1850.000	5100.000	
GR	1850.000	5100.000	1851.000	5120.000	1851.000	5400.000	1850.000	5500.000	1850.000	5600.000	
GR	1850.000	5750.000	1850.000	6120.000	1849.500	6200.000	1849.500	7200.000	1850.000	7450.000	

GR	1852.000	8150.000	1854.000	8500.000	1854.200	8630.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	4470.000	5730.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.000	2350.000	0.035	4500.000	0.060	5000.000	0.025	5100.000	0.040
NH	8630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.431	26.000	5000.000	5100.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1851.000	1851.000	0.000
GR	1850.000	1500.000	1849.000	1750.000	1849.000	2250.000	1849.000	2250.000	1849.000	2250.000
GR	1850.000	2350.000	1850.000	2350.000	1850.000	2350.000	1849.500	2450.000	1849.500	3700.000
GR	1849.500	4000.000	1850.000	4400.000	1850.000	5000.000	1841.800	5040.000	1841.800	5070.000
GR	1850.000	5100.000	1851.000	5120.000	1851.000	5400.000	1850.000	5500.000	1850.000	6120.000
GR	1849.500	6200.000	1849.500	7200.000	1850.000	7450.000	1852.000	8150.000	1854.000	8500.000
GR	1854.200	8630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7280.000	8200.000	0.000	0.000	0.000
NH	6.000	0.000	5000.000	0.060	6675.000	0.035	7300.000	0.060	7655.000	0.027
NH	7845.000	0.060	11250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.470	87.000	7655.000	7845.000	185.000	185.000	185.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1842.300	7728.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	4200.000	1851.000	4450.000	1850.000	4900.000	1850.000	4900.000	1850.000	4900.000
GR	1851.600	5000.000	1851.400	5059.000	1850.700	5063.000	1850.900	5115.000	1850.400	5147.000
GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11050.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	IBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 6.710

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1784.80 ELREA= 1784.80

6.71	11.60	1780.90	0.00	1780.90	1781.88	0.98	0.00	0.00	1784.80
6400.	0.	6400.	0.	0.	807.	0.	0.	0.	1784.80
0.00	0.00	7.93	0.00	0.000	0.035	0.000	0.000	1769.30	14946.63
0.002012	650.	780.	450.	0	0	0	0.00	88.14	15034.77

FLOW DISTRIBUTION FOR SECNO= 6.71 CHSEL= 1780.90

STA= 14947. 15039.
PER Q= 100.0
AREA= 807.1

VEL= 7.9

CCHV= 0.3[illegible] CEHV= 0.600
*SECNO 6.750

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.00 ELREA= 1783.00

LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

6.75	10.99	1781.89	0.00	0.00	1782.26	0.37	0.20	0.18	1783.00
6400.	0.	6400.	0.	0.	1319.	0.	5.	1.	1783.00
0.01	0.00	4.85	0.00	0.070	0.030	0.080	0.000	1770.90	9929.81
0.000511	140.	220.	220.	2	0	0	0.00	140.38	10070.19

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1781.89

STA= 9930. 10072.
PER Q= 100.0
AREA= 1319.4
VEL= 4.9

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPLID	ENDST

*SECNO 6.751

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.00 ELREA= 1783.00

6.75	10.95	1781.85	0.00	0.00	1782.31	0.46	0.00	0.04	1783.00
6400.	0.	6400.	0.	0.	1182.	0.	6.	1.	1783.00
0.01	0.00	5.42	0.00	0.070	0.030	0.080	0.000	1770.90	9929.88
0.001102	5.	5.	5.	2	0	0	0.00	128.24	10070.12

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1781.85

STA= 9930. 10072.
PER Q= 100.0
AREA= 1181.9
VEL= 5.4

*SECNO 6.760

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.20 ELREA= 1783.20

6.76	10.86	1781.96	0.00	0.00	1782.42	0.46	0.11	0.00	1783.20
6400.	0.	6400.	0.	0.	1170.	0.	8.	1.	1783.20
0.02	0.00	5.47	0.00	0.070	0.030	0.080	0.000	1771.10	9930.03
0.001133	130.	130.	130.	2	0	0	0.00	127.93	10069.97

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.76 CWSEL= 1781.96

STA= 9930. 10072.
PER Q= 100.0
AREA= 1170.
VEL= 5.5

*SECNO 6.761

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.20 ELREA= 1783.20

6.76	11.16	1782.26	0.00	0.00	1782.61	0.35	0.16	0.03	1783.20
6400.	0.	6400.	0.	0.	1343.	0.	15.	2.	1783.20
0.03	0.00	4.77	0.00	.071	0.030	0.080	0.000	1771.10	9929.54
0.000485	140.	220.	220.	2	0	0	0.00	140.92	10070.46

FLOW DISTRIBUTION FOR SECNO= 6.76 CWSEL= 1782.26

STA= 9930. 10072.
PER Q= 100.0
AREA= 1342.6
VEL= 4.8

*SECNO 6.920

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1790.90

CL = 11370

6.92	7.88	1785.58	1785.58	0.00	1788.56	2.97	1.04	1.31	1791.00
6400.	0.	6400.	0.	0.	462.	0.	32.	4.	1790.90
0.05	0.00	13.84	0.00	0.070	0.030	0.080	0.000	1777.70	11328.66
0.006028	580.	830.	840.	20	19	0	0.00	79.20	11407.85

1
0

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.92 CWSEL= 1785.58

STA= 11329. 11410.
PER Q= 100.0
AREA= 462.5
VEL= 13.8

CCHV= 0.100 CEHV= 0.300
*SECNO 7.140

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12370.0 TYPE= 1 TARGET= 1170.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1798.80

CL = 12260

7.14	13.21	1792.41	0.00	0.00	1793.02	0.62	4.23	0.24	1791.00
6400.	666.	5734.	0.	746.	862.	0.	55.	13.	1798.80
0.10	0.89	6.65	3.00	0.070	0.030	0.080	0.000	1779.20	11245.31
0.002056	590.	1200.	1250.	3	0	0	0.00	1070.17	12315.48

FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1792.41

STA= 11245. 12030. 12114. 12150. 12369.
PER Q= 6.4 3.1 1.0 89.6
AREA= 534.0 161.3 50.9 862.3
VEL= 0.9 1.2 1.2 6.7

1490 NH CARD USED
*SECNO 7.340

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1798.00 ELREA= 1796.50

CL = 12370

7.34	8.57	1794.07	0.00	0.00	1795.58	1.51	2.29	0.27	1798.00
6400.	.	6400.	0.	0.	649.	0.	78.	23.	1796.50
0.13	0.00	9.87	0.00	0.070	0.025	0.160	0.000	1785.50	12328.66
0.002419	600.	1050.	1300.	3	0	0	0.00	1071.54	12430.20

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1794.07

STA= 12329. 12437.
PER Q= 100.
AREA= 648.6
VEL= 9.9

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.600

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	4.74	1798.54	0.00	0.00	1800.52	1.98	4.71	0.23	1803.90
6400.	3.	6400.	0.	0.	567.	0.	97.	26.	1803.80
0.16	0.00	11.28	0.00	0.070	0.025	0.160	0.000	1793.80	11426.45
0.005355	1200.	1360.	1350.	3	0	0	0.00	134.25	11560.70

0
FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1798.54

STA= 11426. 11577.
PER Q= 100.
AREA= 567.2
VEL= 11.3

1490 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 11280. 11790. TYPE= 1 TARGET= 510.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	4.98	1798.78	1798.78	0.00	1800.98	2.21	0.03	0.12	1803.90
6400.	3.	6400.	0.	0.	537.	0.	97.	26.	1803.80
0.16	0.00	11.92	0.00	0.070	0.025	0.160	0.000	1793.80	11425.22
0.008288	5.	5.	5.	20	12	0	0.00	122.71	11561.93

0
FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1798.78

STA= 11425. 11577.
PER Q= 100.
AREA= 536.8
VEL= 11.9

1490 NH CARD USED
*SECNO 7.610

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11280. 11790. TYPE= 1 TARGET= 510.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	6.42	1800.22	0.00	0.00	1801.63	1.42	0.41	0.24	1803.90	
6400.	0.	6400.	0.	0.	676.	0.	98.	26.	1803.80	
0.17	0.00	9.55	0.00	0.070	0.025	0.160	0.000	1793.80	11420.67	
0.004394	70.	70.	70.	5	0	0	0.00	124.69	11566.27	

FLOW DISTRIBUTION FOR SECNO= 7.61 CHSEL= 1800.22

STA= 11421. 11577.
PER Q= 100.0
AREA= 669.8
VEL= 9.6

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	WNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	ICPWIC	EADST

1490 NH CARD USED
*SECNO 7.611

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11280.0 11790.0 TYPE= 1 TARGET= 510.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	7.19	1801.09	0.00	0.00	1801.84	0.75	0.01	0.20	1803.90
6400.	0.	6400.	0.	0.	920.	0.	98.	26.	1803.80
0.17	0.00	6.95	0.00	0.070	0.025	0.160	0.000	1793.90	11418.71
0.001243	5.	5.	5.	3	0	0	0.00	150.07	11568.79

FLOW DISTRIBUTION FOR SECNO= 7.61 CHSEL= 1801.09

STA= 11419. 11577.
PER Q= 100.0
AREA= 920.4
VEL= 7.3

1490 NH CARD USED
*SECNO 7.680

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1808.30 ELREA= 1809.50

CL = 11800

7.68	6.61	1801.11	0.00	0.00	1802.96	1.85	0.57	0.55	1808.30
6400.	0.	6400.	0.	0.	586.	0.	103.	27.	1809.50
0.17	0.00	10.92	0.00	0.070	0.025	0.160	0.000	1794.50	11738.70
0.003886	290.	230.	220.	3	0	0	0.00	114.08	11852.78

FLOW DISTRIBUTION FOR SECNO= 7.68 CHSEL= 1801.11

STA= 11739. 11930.
PER Q= 100.0
AREA= 586.0
VEL= 10.9

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHL= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 7.970
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12418.0 12669.0 TYPE= 1 TARGET= 251.000
CL = 12529

7.97	7.23	1813.23	1813.23	0.00	1815.52	2.29	6.84	0.13	1812.90
6400.	5.	6375.	21.	6.	524.	9.	124.	32.	1812.40
0.21	.64	12.16	2.27	0.060	0.025	0.025	0.000	1806.00	12437.47
0.004672	1750.	1613.	1340.	20	8	0	0.00	147.35	12584.82

FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1813.23

STA=	12437.	12454.	12563.	12585.
PER Q=	0.1	99.6	0.3	
AREA=	5.6	524.2	9.1	
VEL=	0.3	12.2	2.3	

1490 NH CARD USED
*SECNO 8.190

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1823.90 ELREA= 1823.90

START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	8.54	1819.14	0.00	0.00	1822.20	3.06	6.45	0.23	1823.90
6400.		6401.	0.	0.	456.	0.	137.	35.	1823.90
0.23	0.03	14.04	0.00	0.060	0.030	0.025	0.000	1810.60	8945.59
0.006993	1110.	1140.	930.	2	0	0	0.00	66.47	9012.06

FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1819.14

STA=	8946.	9014.
PER Q=	100.0	
AREA=	455.9	
VEL=	14.0	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.270

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

LAKE MEAD BLVD BRIDGE
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL

8.27	8.24	1821.94	0.00	0.00	1823.62	1.68	1.28	0.14	1824.00
6261.	0.	6260.	0.	0.	602.	0.	141.	35.	1822.20
0.24	0.00	10.40	0.00	0.060	0.025	0.025	0.000	1813.70	9008.47
0.002448	350.	330.	300.	3	0	0	0.00	85.15	9093.62

0
FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1821.94

STA= 9008. 9094.
PER Q= 100.0
AREA= 601.8
VEL= 10.4

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	8.13	1821.82	0.00	0.00	1823.77	1.95	0.02	0.13	1824.00
5380.	0.	5380.	0.	0.	480.	0.	141.	35.	1823.20
0.24	0.00	11.20	0.00	0.060	0.015	0.025	0.000	1813.70	9017.00
0.004863	5.	5.	5.	2	0	0	-9.39	75.00	9095.00

0
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1821.83

STA= 9017. 9095.
PER Q= 100.0
AREA= 480.4
VEL= 11.2

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

3470 ENCROACHMENT STATIONS= 8940.0 9140.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1824.10 ELREA= 1824.00

8.31	8.34	1822.34	1821.75	0.00	1825.90	3.56	1.64	0.48	1824.10
5380.	0.	5380.	0.	0.	355.	0.	143.	36.	1824.00
0.25	0.00	15.15	0.00	0.055	0.015	0.140	0.000	1814.00	9040.00
0.010926	235.	235.	235.	6	9	0	-25.80	76.00	9116.00

0
FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1822.34

STA= 9040. 9116.
PER Q= 100.0
AREA= 355.2
VEL= 15.1

CCHV= 0.300 CEHV= 0.500
*SECNO 8.311
3280 CROSS SECTION 8.31 EXTENDED 0.67 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8900.0 9270.0 TYPE= 1 TARGET= 370.000

8.31	12.67	1826.67	0.00	0.00	1826.90	0.23	0.00	1.00	1824.10	
5520.	69.	5344.	108.	146.	1363.	371.	143.	36.	1824.00	
0.25	0.47	3.92	0.29	1.055	0.025	0.140	0.000	1814.00	8900.00	
0.000190	5.	5.	5.	3	0	0	0.00	370.00	9270.00	

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SECNO	DEPTH	CWSEL	CRIWS	*SELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1826.67

STA= 8900. 8940. 9014. 9140. 9148. 9270.
PER Q= 0.1 1.1 96.8 0.1 1.8
AREA= 26.6 119.6 1363.4 21.3 349.7
VEL= 0.3 1.5 3.9 0.3 1.3

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 8.610

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1832.80 ELREA= 1832.30

8.61	7.71	1826.61	0.00	0.00	1828.00	1.39	0.75	0.35	1832.80
5520.	0.	5520.	0.	0.	584.	0.	187.	44.	1832.30
0.29	0.00	9.46	0.00	0.058	0.025	0.160	0.000	1818.90	7960.22
0.002806	1570.	1560.	1370.	4	0	0	0.00	110.03	8070.25

0
FLOW DISTRIBUTION FOR SECNO= 8.61 CWSEL= 1826.61

STA= 7960. 8094.
PER Q= 100.0
AREA= 583.7
VEL= 9.5

1490 NH CARD USED
*SECNO 8.850

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.60 ELREA= 1837.80

8.85	6.02	1830.42	0.00	0.00	1832.20	1.78	4.08	0.12	1837.60
5520.	0.	5520.	0.	0.	516.	0.	203.	47.	1837.80
0.32	0.00	10.70	0.00	0.058	0.025	0.160	0.000	1824.40	7027.72
0.003849	1370.	1250.	1200.	3	0	0	0.00	101.42	7129.14

0

FLOW DISTRIBUTION FOR SECNO= 8.95 CWSEL= 1830.42

STA= 7028. 7188.
PER Q= 100.
AREA= 515.5
VEL= 10.7

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

8.90	6.65	1831.85	0.00	0.00	1833.07	1.21	0.70	0.17	1837.80
5450.	0.	5450.	0.	0.	617.	0.	206.	48.	1838.00
0.33	0.00	8.84	0.00	0.058	0.025	0.160	0.000	1825.20	9930.17
0.002449	170.	230.	360.	3	0	0	0.00	116.76	10046.94

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1831.85

STA= 9930. 10070.
PER Q= 100.0
AREA= 616.9
VEL= 8.8

1490 NH CARD USED
*SECNO 8.901

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EELC= 1836.105 EGC= 1836.122 WSEL= 1832.186

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EELC= 1836.105 EGC= 1836.110 WSEL= 1832.303

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.40

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
     8.90      7.20  1832.40  1832.40     0.00  1836.11     3.71     0.02     1.25  1837.80
     5450.        .     5450.       0.       0.      353.       0.      206.      48.  1838.00
     0.33      0.00    15.45     0.00     0.050    0.015    0.131    0.000  1825.20  9950.00
 0.009185        5.       5.       5.       20       21        0     0.00    45.00 10019.00

FLOW DISTRIBUTION FOR SECNO=      8.90          CWSEL=   1832.40

STA=    9950.   10019.
  PER Q=     100.0
   AREA=     352.8
    VEL=      15.4

CCHV=   0.100 CEHV=   0.300
1490 NH CARD USED
*SECNO 8.910

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF  1832.800 EGLC=  1838.361 EGC=  1840.519 WSEL=  1835.807

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF  1832.800 EGLC=  1838.361 EGC=  1838.365 WSEL=  1832.791

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1837.8  MAX ELLC= 1832.80

3665 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3475 ENCROACHMENT STATIONS=    9890.0   10430.0  TYPE=     1  TARGET=     540.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1838.10 ELREA=     1838.10

     8.91      7.20  1832.80  1832.80     0.00  1838.36     5.56     0.82     0.56  1837.80
     5450.        .     5451.       0.       .      286.       0.      206.      48.  1838.00
     0.33      0.00    18.92     0.00     0.022    0.015    0.074    0.000  1825.60  9950.00
 0.015562        70.      70.      70.       20       20        0     0.00    40.00 10018.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TEA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCRAR     TOPWID       ENDST

FLOW DISTRIBUTION FOR SECNO=      8.91          CWSEL=   1832.80

STA=    9950.   10018.
  PER Q=     100.0
   AREA=     288.0
    VEL=      18.9

CCHV=   0.300 CEHV=   0.500
1490 NH CARD USED
*SECNO 8.911

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=    9910.0   10900.0  TYPE=     1  TARGET=     990.000
     8.91     14.21  1839.81     0.00     0.00  1839.98     0.17     0.00     1.62  1828.00
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     5520.      535.     4116.      869.      242.     1107.     1544.      206.       48.    1828.00
      0.33      2.21      3.72      3.56      .025     0.025     0.051      .000  1825.60    9910.00
 0.000119        5.        5.        5.         4         0         0      0.00   990.00   10900.00

 FLOW DISTRIBUTION FOR SECNO=       8.91          CWSEL=    1839.81

 STA=    9910.     9945.    10025.    10070.    10270.    10430.    10800.    10900.
   PER Q=     9.7      74.6      12.7       1.0       0.4       1.0       0.6
    AREA=   241.9    1106.9     356.5     362.3     201.8     466.7     206.2
     VEL=     2.2       3.7       2.3       0.2       0.1       0.1       0.2

 1490 NH CARD USED
 *SECNO 9.060

 3470 ENCROACHMENT STATIONS=     7186.0     7361.0  TYPE=      1  TARGET=     175.000
      9.06     11.77   1839.87      0.00      0.00   1840.23      0.36      0.15      0.10   1840.50
      3875.         .      3875.        0.        0.      805.        0.      241.        58.   1841.10
       0.38      0.00      4.81      0.00     0.160     0.025     0.160      .000  1828.10   7239.92
 0.000460       650.      820.      830.         2         0         0      0.00   106.20   7346.12

 FLOW DISTRIBUTION FOR SECNO=       9.06          CWSEL=    1835.87

 STA=    7240.     7349.
   PER Q=     100.0
    AREA=     805.2
     VEL=       4.3

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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         QLCSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 CCHV=    0.10  CEHV=    0.300
 1490 NH CARD USED
 *SECNO 9.300

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=        0.0     7900.0  TYPE=      1  TARGET=    7899.999

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1847.10 ELREA=     1844.70

      9.30      7.07   1841.47   1841.47      0.00   1842.79      1.32      1.49      0.25   1847.10
      3875.         .      3875.        0.        0.      420.        0.      258.        62.   1844.70
       0.42      0.00      9.23      0.00     0.043     0.026     0.053      .000  1834.40   7224.12
 0.007790      1040.     1250.     1070.        20        15         0      0.00   167.67   7412.27

 FLOW DISTRIBUTION FOR SECNO=       9.30          CWSEL=    1841.47

 STA=    7224.     7447.
   PER Q=     100.0
    AREA=     419.3
     VEL=       9.2

 CCHV=    0.300 CEHV=    0.500
 1490 NH CARD USED
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*SECNO 9.410

3470 ENCROACHMENT STATIONS= 4900. 6120.0 TYPE= 1 TARGET= 1220.000

9.41	4.39	1844.89	0.00	0.00	1846.51	1.63	3.57	0.15	1847.90
3875.	0.	3875.	0.	0.	378.	0.	264.	64.	1846.50
0.43	0.00	11.24	0.00	0.043	0.025	0.053	.000	1840.50	5377.73
0.005152	840.	570.	330.	3	0	0	0.00	100.30	5478.03

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1844.89

STA= 5379. 5496.
PER Q= 100.0
AREA= 378.3
VEL= 10.2

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 9.411

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1850.000 EGLC= 1851.222 EGC= 1851.814 WSEL= 1851.001

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 1848.90 MAX ELLC= 1850.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4900.0 6120.0 TYPE= 1 TARGET= 1220.000

9.41	5.42	1845.92	1845.92	0.00	1848.64	2.73	0.12	0.55	1847.80
3875.	0.	3875.	0.	0.	292.	0.	264.	64.	1847.80
0.43	0.00	13.25	0.00	0.037	0.015	0.037	0.000	1840.50	5391.00
0.004746	5.	5.	5.	20	20	0	0.00	54.00	5459.00

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1845.92

STA= 5391. 5459.
PER Q= 100.0
AREA= 292.5
VEL= 13.2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.430

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 1850.00 MAX ELLC= 1852.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCF&IC	ENDST

3470 ENCROACHMENT STATIONS= 5000.0 5100.0 TYPE= 1 TARGET= 100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1851.00 ELREA= 1851.00

9.43	8.96	1850.76	1350.76	0.00	1852.78	2.02	0.60	0.07	1849.20
3875.	0.	3875.	0.	0.	340.	0.	264.	64.	1845.20
0.44	0.00	11.41	0.00	0.015	0.015	0.015	0.000	1841.80	5020.00
0.006411	110.	110.	110.	2	6	0	-108.77	67.00	5087.00

FLOW DISTRIBUTION FOR SECNO= 9.43 C&SEL= 1850.76

STA=	5020.	5087.
PER Q=	100.0	
AREA=	339.7	
VEL=	11.4	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.431

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 4470.0 5730.0 TYPE= 1 TARGET= 1260.000

9.43	11.54	1853.34	0.00	0.00	1853.38	0.04	0.00	0.59	1850.00
3875.	851.	1877.	1147.	1768.	867.	1762.	265.	64.	1850.00
0.44	0.48	2.17	0.65	0.060	0.025	0.040	0.000	1841.80	4470.00
0.000076	5.	5.	5.	4	0	0	0.00	1260.00	5730.00

FLOW DISTRIBUTION FOR SECNO= 9.43 C&SEL= 1853.34

STA=	4470.	5000.	5100.	5120.	5400.	5500.	5730.
PER Q=	22.0	48.4	1.0	9.7	4.8	14.2	
AREA=	1768.0	866.6	56.7	654.0	283.6	767.2	
VEL=	0.5	2.2	0.7	0.6	0.7	0.7	

1490 NH CARD USED
*SECNO 9.470

347 ENCROACHMENT STATIONS= 7280.0 8300.0 TYPE= 1 TARGET= 1020.000

1

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCF&IC	ENDST

9.47	11.15	1853.35	0.00	0.00	1853.40	0.05	0.02	0.00	1852.00
3875.	407.	2585.	882.	828.	1238.	1480.	282.	64.	1850.70
0.47	0.49	2.09	0.60	0.057	0.027	0.060	0.000	1842.30	7280.00
0.000120	185.	185.	185.	2	0	0	0.00	1020.00	8300.00

0
FLOW DISTRIBUTION FOR SECNO= 9.47 C&SEL= 1853.35

STA=	7280.	7387.	7556.	7655.	7845.	7955.	8065.	8129.	8190.	8253.	8300.

PER Q=	4.1	3.7	2.7	66.7	4.6	4.8	3.0	3.7	3.7	2.9
AREA=	273.	331.9	222.9	1237.7	32[illegible].1	329.7	201.4	222.5	227.0	179.2
VEL=	0.5	0.4	0.5	2.1	0.6	0.6	0.6	0.6	0.6	0.6


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - LAMB BL

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6.710	0.00	0.00	0.00	1765.30	6400.00	1780.90	0.00	1781.88	20.12	7.93	807.13	1426.75
	6.750	220.00	0.00	0.00	1770.90	6400.00	1781.89	0.00	1782.26	5.11	4.85	1315.38	2831.89
	6.751	5.00	1783.00	1783.00	1770.90	6400.00	1781.65	0.00	1782.31	11.02	5.42	1181.88	1927.68
	6.760	100.00	1783.00	1783.20	1771.10	6400.00	1781.96	0.00	1782.42	11.33	5.47	1165.97	1901.19
	6.761	220.00	0.00	0.00	1771.10	6400.00	1782.26	0.00	1782.61	4.85	4.77	1342.64	2907.24
*	6.920	830.00	0.00	0.00	1777.70	6400.00	1785.58	1785.58	1788.56	80.28	13.84	462.46	714.34
	7.140	1200.00	0.00	0.00	1779.20	6400.00	1792.41	0.00	1793.03	20.56	6.65	1608.47	1411.31
	7.340	1050.00	0.00	0.00	1785.50	6400.00	1794.07	0.00	1795.58	24.19	9.87	648.57	1301.37
	7.600	1360.00	0.00	0.00	1793.80	6400.00	1798.54	0.00	1800.52	53.55	11.28	567.18	874.66
•	7.601	5.00	1803.80	1803.90	1793.80	6400.00	1798.78	1798.78	1800.98	82.88	11.92	536.79	702.98
	7.610	70.00	1803.80	1803.90	1793.80	6400.00	1800.22	0.00	1801.63	43.94	9.55	665.83	965.55
	7.611	5.00	0.00	0.00	1793.90	6400.00	1801.09	0.00	1801.84	12.43	6.95	920.44	1814.92
	7.680	280.00	0.00	0.00	1794.50	6400.00	1801.11	0.00	1802.96	38.86	10.92	585.99	1026.63
*	7.970	1610.00	0.00	0.00	1806.00	6400.00	1813.23	1813.23	1815.52	46.72	12.16	538.93	936.35
	8.190	1140.00	0.00	0.00	1810.60	6400.00	1819.14	0.00	1822.20	69.93	14.04	455.85	765.38
	8.270	330.00	0.00	0.00	1813.70	6260.00	1821.94	0.00	1823.62	24.48	10.40	601.80	1265.17
	8.271	5.00	1823.20	1821.70	1813.70	5380.00	1821.83	0.00	1823.77	48.63	11.20	480.40	771.52

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	8.310	235.00	1823.20	1822.00	1814.00	5380.00	1822.34	1821.75	1825.90	109.26	15.15	355.20	514.74

	8.311	5.00	0.00	0.00	1814.00	5520.00	1826.67	0.00	1826.90	1.90	3.92	1880.66	4004.66
	8.610	1560.00	0.00	0.00	1818.90	5520.00	1826.61	0.00	1828.00	28.08	9.46	583.72	1041.74
	8.850	1250.00	0.00	0.00	1824.40	5520.00	1830.42	0.00	1832.20	38.49	10.70	515.65	889.73
	8.900	230.00	0.00	0.00	1825.20	5450.00	1831.85	0.00	1833.07	24.49	8.84	616.86	1101.36
*	8.901	5.00	1837.80	1832.40	1825.20	5450.00	1832.40	1832.40	1836.11	91.85	15.45	352.80	568.67
*	8.910	70.00	1837.80	1832.80	1825.60	5450.00	1832.80	1832.80	1838.36	155.62	18.92	288.00	436.85
	8.911	5.00	0.00	0.00	1825.60	5520.00	1839.81	0.00	1839.98	1.19	3.72	2892.38	5065.66
	9.060	620.00	0.00	0.00	1828.10	3875.00	1839.87	0.00	1840.23	4.60	4.81	805.18	1807.12
*	9.300	1250.00	0.00	0.00	1834.40	3875.00	1841.47	1841.47	1842.79	77.50	9.23	419.77	439.00
	9.410	570.00	0.00	0.00	1840.50	3875.00	1844.89	0.00	1846.51	51.52	10.24	378.28	539.86
*	9.411	5.00	1848.90	1850.00	1840.50	3875.00	1845.92	1845.92	1848.64	47.46	13.25	292.50	562.45
*	9.430	110.00	1850.00	1852.00	1841.80	3875.00	1850.76	1850.76	1852.78	64.11	11.41	339.69	483.95
	9.431	5.00	0.00	0.00	1841.80	3875.00	1853.34	0.00	1853.38	0.76	2.17	4396.12	4430.57
	9.470	185.00	0.00	0.00	1842.30	3875.00	1853.35	0.00	1853.40	1.20	2.09	3545.53	3531.96

LAS VEGAS WASH - LAMB BL
SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6.710	6400.00	1780.90	0.00	0.00	0.00	88.14	0.00
	6.750	6400.00	1781.89	0.00	0.99	0.00	147.38	220.00
	6.751	6400.00	1781.85	0.00	-0.04	0.00	128.24	5.00
	6.760	6400.00	1781.96	0.00	0.11	0.00	127.93	100.00
	6.761	6400.00	1782.26	0.00	0.30	0.00	147.92	220.00
*	6.920	6400.00	1785.68	0.00	3.32	0.00	79.20	830.00
	7.140	6400.00	1792.41	0.00	6.83	0.00	1070.17	1200.00
	7.340	6400.00	1794.07	0.00	1.66	0.00	101.54	1050.00
	7.600	6400.00	1798.54	0.00	4.47	0.00	134.25	1360.00
*	7.601	6400.00	1798.78	0.00	0.24	0.00	122.71	5.00
	7.610	6400.00	1800.22	0.00	1.44	0.00	124.60	70.00
	7.611	6400.00	1801.09	0.00	0.88	0.00	150.07	5.00
	7.680	6400.00	1801.11	0.00	0.02	0.00	114.08	280.00
*	7.970	6400.00	1813.23	0.00	12.12	0.00	147.35	1610.00

	8.190	6400.00	1819.14	0.00	5.91	0.00	66.47	1140.00
	8.270	6260.00	1821.94	0.00	2.80	0.00	85.15	330.00
	8.271	5380.00	1821.33	0.00	-0.12	0.00	75.00	5.00
	8.310	5380.00	1822.34	0.00	0.51	0.00	76.00	235.00
	8.311	5520.00	1826.67	0.00	4.33	0.00	370.00	5.00
	8.610	5520.00	1826.61	0.00	-0.06	0.00	110.03	1560.00
	8.850	5520.00	1830.42	0.00	3.81	0.00	101.42	1250.00
	8.900	5450.00	1831.85	0.00	1.44	0.00	116.76	230.00
*	8.901	5450.00	1832.40	0.00	0.55	0.00	49.00	5.00
*	8.910	5450.00	1832.80	0.00	0.40	0.00	40.00	70.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLOC
	8.911	5520.00	1839.81	0.00	7.01	0.00	990.00	5.00
	9.060	3875.00	1839.87	0.00	0.06	0.00	106.20	820.00
*	9.300	3875.00	1841.47	0.00	1.60	0.00	167.67	1250.00
	9.410	3875.00	1844.39	0.00	3.42	0.00	100.30	570.00
*	9.411	3875.00	1845.32	0.00	1.03	0.00	54.00	5.00
*	9.430	3875.00	1850.76	0.00	4.84	0.00	67.00	110.00
	9.431	3875.00	1853.34	0.00	2.58	0.00	1260.00	5.00
	9.470	3875.00	1853.35	0.00	0.01	0.00	1020.00	185.00

1
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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 6.920 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.920 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.920 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.601 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.601 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.601 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.970 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.970 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.970 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.901 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.901 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.901 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.910 PROFILE= 1 CRITICAL DEPTH ASSUMED

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 CAUTION  SECNO=     8.910  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.910  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.300  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.300  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.300  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.411  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.411  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.411  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.430  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.430  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.430  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

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  28-APR-86     17:56:13                                                    PAGE    1


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************



EOF..
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C
C        9
C    6.92  Model of Q50 and Q100 breakouts in left overbank between Lamb Blvd
C    6.92  and Lake Mead Blvd.  Use truncated xsecs from full HEC-2 model.
C    6.92  Add 10.0 to xsec numbers from full model.
C    6.92  Start at x-6.92 with full Q100 flow, and floodplain in LOB
C    6.92  encroached to reasonable expansion limits.  Q50 overbank flow does
C    6.92  not return to channel here; keep separate.  Use ET cards for
C    6.92  x-6.92 to x-17.97 to set approx 1:1 expansion limits.
C    6.92  Flows come from R4_MID_SF.out; split flow run for main channel.
C
T1        CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGP
T3        LVW LEFT OVERBANK BREAKOUT - LM TO LVB                50-YEAR
J1              3                                                      1788.0
J2      1              -1
QT      4            2870     23540
ET                    8.1       8.1       8.1      6200     11320     6200     11437
NC   .070      .070      .070       0.1       0.3
X1  6.92        36    11321     11410       580       840       830
X4      1  1790.0       900
GR1793.0       680      1788      1000      1788      2000      1787      3500      1788      4850
GR  1785      6450      1785      9200      1784      9550      1784     10210      1784     10200
GR1787.3     11000    1787.7     11145    1786.5     11169    1786.6     11200    1787.0     11289
GR1791.0     11321    1781.8     11334    1777.7     11357    1777.7     11366    1779.0     11378
GR1781.0     11406    1790.9     11410    1786.9     11426    1790.0     11437    1789.9     11504
GR1788.3     11551    1788.1     11559    1788.1     11578    1788.1     11605    1788.1     11612
GR1788.6     11622      1786     12100     1786.     12300      1788     13600      1788     16450
GR  1792     17230
QT      4            2870     11930
ET                    8.1       8.1                                    6200
X1 17.14        14     7100      7200       580       580       580
GR1800.0       450      1791      1050      1790      1500    1789.5      2300      1788      3700
GR  1789      4600      1789      6200      1788      7100      1788      7200      1788     10450
GR1792.5     11200    1791.0     12000    1791.0     12114    1791.0     12150
ET                    8.1       8.1                                    6850
X1 17.34        16     8600      8700       600       600       600
X4      2  1792.0      7300    1792.0      9600
GR1800.0       150    1795.0       900    1792.0      3500    1792.0      5000    1792.2      6850
GR1791.0      8600    1791.0      8700    1791.0      9600    1792.0     10000    1796.0     10980
GR1796.0     12000    1796.3     12048    1795.8     12125    1796.6     12229    1795.7     12268
GR1798.9     12321
ET                    8.1       8.1                                    6800
X1 17.60        13     8000      8290      1200      1200      1200
GR1799.5      4300    1799.0      6250    1800.0      6800    1796.0      8000    1796.0      8290
GR1797.0      8450    1797.0      8800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0     11200    1804.5     11280    1803.9     11410
ET                    8.1       8.1                                    7300
X1 17.68        15     8550      8700       370       370       370
GR1802.0      4450    1801.0      5800    1801.5      7300    1801.0      7700    1800.0      8070
GR1800.0      8350    1797.5      8550    1797.5      8700    1800.0      9060    1799.0      9250
GR1799.0      9400    1800.0      9610    1804.0     10500    1804.4     11000    1808.3     11640
QT      4            2840     11470
ET                    8.1       8.1                                    8500
X1 17.97        12     9450      9500      1750      1750      1750
X4      1  1810.0      1000
GR1812.0      4600    1812.0      7500    1812.0      8500    1810.0      9450    1810.0      9500
GR1815.2     12000    1816.6     12227    1815.6     12313    1813.6     12367    1815.1     12418
GR1812.8     12442    1812.9     12454
X1 18.19        14     7030      7100      1110      1110      1110
X4      3    1818      4920      1819      5810    1820.0      7800
GR1820.0      3800    1816.0      7030    1816.0      7100    1820.0      8000    1820.0      8000
GR1819.2      8000    1819.6      8169    1819.4      8408    1820.1      8794    1820.5      8849
GR1821.5      8875    1820.3      8921    1822.6      8927    1823.9      8941
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QT       4          2570       5720
X1  18.27          6770       6800        350        350        350
GR1822.0      4430 1822.0       5200 1821.0       5850 1819.5       6770 1819.5       6800
GR1819.5      7400 1824.        9000. 1824.       9006.
NC    .080    .080    .080
X1  18.31          6770       6800.       250        250        250
GR1824.0      4000 1823.8       5850 1823.5       6050 1821.0       6770 1821.0       6800
GR1822.0      7800 1826.        8900. 1826.       8940 1824.1       9014.
NC    .040   0.16    .080
QT       4          2280       6410
X1  18.61          6          2020.       3700.      1500.      1400.      1450.
X4       1 1830.5             2900
GR1832.0             0 1830.0          250 1829.0       2020 1829.0       3700 1829.0       5380
GR1831.0      5970
X1  18.85          6          1700.       2550.      1500.      1500.      1500.
X4       1 1836.0             4180
GR1840.0             0 1837.0          250 1837.0       1700 1837.0       2550 1840.0       3730
GR1837.0      4900
QT       4          2280       4850
X1  18.91          6          3050.       4500.       260.       200.       250.
X4       2 1840.0             2800 1836.5       6980
GR1843.0      2650 1837.5       3050 1837.5       4500 1837.5       5350 1841.0       6530
GR1839.0      7700
X1  19.06          7          1400.       2000.       520.       520.       520.
GR1845.0       500 1840.0       1400 1840.0       2000 1841.0       2800 1844.0       4450
GR1841.0      4800 1842.5       4850
X1   9.30          6          1880        3080        700        850        800
X4       1 1850.0             1150
GR1852.0      1000 1845.0       1880 1844.0       3080 1845.0       4000 1846.0       4700
GR1848.0      4850
NH       3.   .080       2650    .040       4000    .060       4900
X1   9.41         10          4250.       4700.       600.       600.       600.
X4       3 1850.0             -300 1850.0       1800 1849.5       3410
GR1853.0      -800 1849.0       2200 1849.0       2650 1849.9       2760 1849.0       2960
GR1848.5      4000 1848.0       4150 1847.9       4250 1847.9       4700 1848.5       4900
QT       4         13000      24000
ET                   6.1        6.1                  2700       6120
NH       8.   .080       2650    .040       4000    .060       4700    .037       5370    .015
NH    5496    .037       6120    .055       7650    .080       8900
X1  9.411          58          5391.       5459.         5.         5.         5
X4       2 1850.5             2700 1848.5       3410
BT      -19          2760 1849.9       1849.9       3410 1849.0       1848.5       4000 1848.9       1848.5
BT                   4250 1849.9       1847.9       5065 1849.9       1847.9       5184 1850.7       1847.9
BT                   5254 1851.3       1847.9       5391 1851.4       1847.8       5459 1851.4       1847.8
BT                   5559 1851.0       1847.5       5676 1851.0       1848.9       5735 1851.0       1846.1
BT                   5762 1851.0       1848.3       5950 1851.1       1848.2       6200 1850.1       1848.3
BT                   6600 1850.1       1849.0       7400 1850.1       1849.0       7650 1850.1       1850.0
BT                   8000 1850.0       1850.0
GR1850.0      1900 1849.0       2200 1849.0       2650 1849.9       2760 1849.0       2960
GR1848.5      4000 1848.0       4150 1847.9       4250 1847.9       4700 1848.5       4900
GR1847.9 0035000 1847.9       0035065 1847.9       0035118 1847.8       0035184 1847.9       0035242
GR1847.9 0035264 1847.9       0035306 1848.0       0035352 1847.9       0035370 1847.8       0035391
GR1840.5      5391 1840.5       5401 1847.8       5401 1847.8       5404 1840.5       5404
GR1840.5      5415 1847.8       5415 1847.8       5418 1840.5       5418 1840.5       5429
GR1847.8      5429 1847.8       5434 1840.5       5434 1840.5       5445 1847.8       5445
GR1847.8      5448 1840.5       5448 1840.5       5459 1847.8       5459 1847.4       5535
GR1847.5 0035559 1847.2       0035579 1847.4       0035601 1847.5       0035631 1848.9       0035676
GR1846.1 0035735 1848.3       0035762 1846.1       0035790 1847.2       0035815 1848.2       0035550
GR1849.5      6120 1848.3       6200 1849.0       6600 1849.0       7400 1850.0       7650
GR1850.0      8000 1852.0       8280 1854.0       8900
EJ
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGF
T3       LVW LEFT OVERBANK BREAKOUT - LM TO LVB                100-YEAR
J1                4                                                    1791.0
J2    15                -1
```

ER
DOF..

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CCCCCCCCCC
         8
     7.54  EASTERN AVE. BRIDGE
     7.54  CENTERLINE STATION = 2305
     7.58  CENTERLINE STATION = 2314.5
     7.72  CENTERLINE STATION = 2575
     8.08  CENTERLINE STATION = 2409
     8.26  CENTERLINE STATION = 3402
     8.50  CENTERLINE STATION = 3139
     8.75  CENTERLINE STATION = 3209.5
T1         Las Vegas Wash Overflow Study - CCRFCD
T2         James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3         JMU_NONDAM          Nondamaging Flow Analysis - February 1988
J1                 2                                                2034.47
J2         1              -1
J3       150
NC     .050      .050      .045        .1        .3
QT         5       300      1000      1500      2000     30000
NC      .05       .02      .045        .3        .5
X1      7.54        11      2284      2326       350       950       640
GR2044.5          850      2040       900    2037.4      1950    2041.5      2284    2031.9      2284
GR2031.9         2326    2041.5      2326    2043.7      2700      2045      2980    2046.5      3380
GR2048.0         3650
BT        14      2284    2041.5    2031.9      2287    2041.5    2036.2      2290    2041.5      2038
BT      2294    2041.5    2039.0      2298    2041.5    2038.0      2301    2041.5    2036.2      2304
BT2041.5        2031.9      2306    2041.5    2031.9      2309    2041.5    2036.2      2312    2041.5
BT2038.0         2316    2041.5    2039.0      2320    2041.5    2038.0      2323    2041.5    2036.2
BT      2326    2041.5    2031.9
NC     .050      .050      .040        .1        .3
X1      7.58        16      2290      2495       260       160       130
GR2045.5         1215      2040      1330      2040      1470    2036.4      1670    2036.4      1671
GR      2039     2290    2039.0      2290    2031.9      2303    2031.9      2326    2037.5      2336
GR2036.8         2433    2038.0      2461    2040.3      2495    2041.6      2672      2044      2880
GR      2048     3230
X1      7.72        19      2553      2585       745       650       735
GR      2052     1410      2048      1621      2048      1621      2048      1621      2048      1621
GR2045.0         2000    2045.0      2000    2043.1      2473    2041.4      2529    2041.4      2553
GR2035.3         2561    2035.1      2575    2043.3      2585    2043.3      2640    2039.5      2657
GR2043.3         2668    2046.4      2735    2149.2      3053    2052.6      3189
NH         5      .03       830      .125      1800       .05      2349      .045      2419       .05
NH      3700
X1      8.08        23      2349      2419      1875      1855      2005
GR2061.8         480    2060.0       680    2060.0       830    2060.0       930    2060.0      1030
GR      2060     1433      2056      1773      2056      1773      2056      1773      2056      1773
GR2053.8         2000    2053.6      2058    2055.0      2194    2055.5      2332    2053.5      2348
GR2051.4         2390    2050.3      2409    2055.5      2419    2056.9      2589      2058      2779
GR      2060     3400      2060      3500      2062      3600
NH         5      .05      1350      .125      2000       .05      3358      .045      3445       .05
NH      3792
X1      8.26        32      3358      3445       915       920       970
GR2068.0         260    2064.0       380    2064.0      1350    2065.0      1650    2063.0      1820
GR2064.0         2000    2063.7      2033    2053.2      2182    2062.5      2208    2062.9      2254
GR2062.5         2283    2062.5      2309    2052.3      2345    2063.4      2533    2063.3      2590
GR2058.9         2605    2061.7      2616    2060.5      2697    2059.4      2724    2060.0      2820
GR2061.3         2837    2062.4      2962    2061.3      3144    2059.0      3174    2059.9      3243
GR2060.0         3358    2056.9      3402    2057.4      3421    2059.7      3445    2059.5      3610
GR2063.7         3690    2066.6      3752
NC     .05       .05      .045        .1        .3
X1      8.50        19      2815      3339      1230      1255      1245
GR2072.0         1275    2068.0      1840    2057.0      2430    2067.0      2430    2067.0      2430
GR2064.9         2815    2064.1      2930    2054.4      2961    2064.6      2994    2064.2      3006
GR2064.8         3068    2064.5      3090    2063.0      3139    2063.0      3159    2071.3      3339
GR2075.9         3457    2080.2      3519    2077.1      3567    2079.2      3582
NC     .045      .045      .040
```

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X1   8.75       14      3185      3405      1380      1250      1325
GR2081.9     2030  2079.7     2097  2078.3     2471  2075.4     2993  2075.5     3185
GR2072.2     3196  2072.2     3223  2077.2     3237  2077.2     3267  2073.1     3277
GR2072.5     3317  2075.6     3328  2079.0     3405  2093.0     3950
EJ
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JMU_NONDAM          Flow Analysis - February 1988
J1              3                                                2036.75
J2      2               -1
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JMU_NONDAM          Flow Analysis - February 1988
J1              4                                                2037.83
J2      3               -1
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JMU_NONDAM          Flow Analysis - February 1988
J1              5                                                2039.74
J2      4               -1
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JMU_NONDAM          Flow Analysis - February 1988
J1              6                                                2039.74
J2     15               -1


ER
EOF..
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See 7.426 – 8.75

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CCCC
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NC    .05      .05      .045      .1       .3
X1   8.50       19      2815      3339     1230     1255     1245
GR2072.0      1275  2068.0      1840  2067.0      2430  2067.0      2430  2067.0      2430
GR2064.8      2815  2064.1      2930  2064.4      2961  2064.6      2994  2064.2      3006
GR2054.8      3058  2064.5      3050  2063.0      3139  2063.0      3159  2071.3      3339
GR2075.9      3457  2080.2      3519  2077.1      3567  2079.2      3582
NC    .045     .045      .040
X1   8.75       14      3185      3405     1380     1250     1325
GR2081.9      2000  2079.7      2097  2078.3      2471  2075.4      2993  2075.5      3185
GR2072.2      3196  2072.2      3223  2077.2      3237  2077.2      3267  2073.1      3277
GR2072.5      3317  2075.6      3328  2079.0      3405  2093.0      3950
EJ
T1          Las Vegas Wash Overflow Study - CCRFCD
T2          James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3          LVWDCJMU          50-YR Flood Analysis - July 1987
J1                3                                                  2036.75
J2        2               -1
T1          Las Vegas Wash Overflow Study - CCRFCD
T2          James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3          LVWDCJMU          100-YR Flood Analysis - July 1987
J1                4                                                  2037.83
J2        3               -1
T1          Las Vegas Wash Overflow Study - CCRFCD
T2          James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3          LVWDCJMU          500-YR Flood Analysis - July 1987
J1                5                                                  2039.74
J2       15               -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  15-OCT-87 TIME   13:45:40          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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see 7.426 - 8.75

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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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1
  15-OCT-87     13:45:41                                                    PAGE     1
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  ***********************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ***********************************************

C
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3        LVWDCJMU          25-YR Flood Analysis - July 1987

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.        2.         0.         0.   0.000000       0.00       0.0         0.   2034.470     0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
    1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.350      0.050      0.045      0.100      0.300      0.000      0.000      0.000      0.000      0.000
OT      4.000   5300.000   9800.000  18000.000  54000.000      0.000      0.000      0.000      0.000      0.000
          FEET FILE LVWDCUPR
X1      7.426     22.000   9980.000  10020.000      0.000      0.000      0.000      0.000      0.000      0.000
GR   2041.700   7830.000   2040.000   8150.000   2040.000   8260.000   2037.800   8680.000   2036.000   8760.000
GR   2036.000   9200.000   2039.000   9450.000   2036.000   9710.000   2032.000   9950.000   2028.000   9980.000
GR   2026.300  10000.000   2028.000  10020.000   2032.000  10030.000   2036.000  10040.000   2036.000  10100.000
GR   2039.000  10300.000   2036.000  10450.000   2036.000  10600.000   2040.000  10800.000   2040.000  11130.000
GR   2040.300  11350.000   2040.000  11800.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.050      0.020      0.045      0.300      0.500      0.000      0.000      0.000      0.000      0.000
          EASTERN AVE. BRIDGE
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CENTERLINE STATION = 2305

X1	7.540	11.000	2284.000	2326.000	350.000	950.000	640.000	0.000	0.000	0.000
GR	2044.500	850.000	2040.000	900.000	2037.400	1950.000	2041.500	2284.000	2031.900	2284.000
GR	2031.900	2326.000	2041.500	2326.000	2043.700	2700.000	2045.000	2980.000	2046.500	3380.000
GR	2048.000	3650.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	14.000	2284.000	2041.500	2031.900	2287.000	2041.500	2036.200	2290.000	2041.500	2038.000
BT	2294.000	2041.500	2039.000	2298.000	2041.500	2038.000	2301.000	2041.500	2036.200	2304.000
BT	2041.500	2031.900	2306.000	2041.500	2031.900	2309.000	2041.500	2036.200	2312.000	2041.500
BT	2038.000	2316.000	2041.500	2039.000	2328.000	2041.500	2038.000	2323.000	2041.500	2036.200
BT	2326.000	2041.500	2031.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

NC	0.050	0.050	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 2314.5

X1	7.580	16.000	2290.000	2495.000	260.000	160.000	130.000	0.000	0.000	0.000
GR	2045.500	1215.000	2040.000	1330.000	2040.000	1470.000	2036.400	1670.000	2036.400	1671.000
GR	2039.000	2290.000	2039.000	2290.000	2031.900	2303.000	2031.900	2326.000	2037.500	2336.000
GR	2036.800	2433.000	2038.000	2461.000	2049.300	2495.000	2041.600	2672.000	2044.000	2880.000
GR	2048.000	3230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 2575

X1	7.720	19.000	2553.000	2585.000	745.000	650.000	735.000	0.000	0.000	0.000
GR	2052.000	1410.000	2048.000	1621.000	2048.000	1621.000	2048.000	1621.000	2048.000	1621.000
GR	2045.000	2000.000	2045.000	2000.000	2043.100	2473.000	2041.400	2529.000	2041.400	2553.000
GR	2035.300	2561.000	2035.100	2575.000	2043.300	2585.000	2043.300	2640.000	2039.500	2657.000
GR	2043.300	2663.000	2046.400	2735.000	2049.200	3053.000	2052.600	3189.000	0.000	0.000
NH	5.000	0.030	830.000	0.125	1800.000	0.050	2349.000	0.045	2419.000	0.050
NH	3709.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 2409

X1	8.180	23.000	2349.000	2419.000	1875.000	1855.000	2005.000	0.000	0.000	0.000
GR	2061.300	480.000	2060.000	680.000	2060.000	830.000	2060.000	930.000	2060.000	1030.000
GR	2060.000	1433.000	2056.000	1773.000	2056.000	1773.000	2056.000	1773.000	2056.000	1773.000
GR	2053.800	2000.000	2053.600	2098.000	2055.000	2194.000	2055.500	2332.000	2053.500	2349.000
GR	2051.400	2390.000	2050.300	2409.000	2055.500	2419.000	2056.900	2589.000	2058.000	2775.000
GR	2060.300	3400.000	2060.000	3500.000	2062.000	3600.000	0.000	0.000	0.000	0.000
NH	5.000	0.050	1350.000	0.125	2000.000	0.050	3358.000	0.045	3445.000	0.050
NH	3792.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 3402

X1	8.260	32.000	3358.000	3445.000	915.000	920.000	970.000	0.000	0.000	0.000
GR	2068.000	260.000	2064.000	380.000	2064.000	1350.000	2065.000	1650.000	2063.000	1820.000
GR	2064.000	2000.000	2063.700	2033.000	2063.200	2182.000	2062.500	2208.000	2062.900	2254.000
GR	2062.500	2283.000	2062.500	2309.000	2062.300	2345.000	2063.400	2533.000	2063.300	2590.000
GR	2058.900	2605.000	2061.700	2616.000	2060.500	2697.000	2059.400	2724.000	2060.000	2820.000
GR	2051.300	2837.000	2062.400	2962.000	2061.300	3144.000	2059.000	3174.000	2059.900	3243.000
GR	2060.000	3358.000	2056.900	3402.000	2057.400	3421.000	2059.700	3445.000	2059.500	3610.000
GR	2063.700	3690.000	2066.600	3792.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 3139

X1	8.500	19.000	2815.000	3339.000	1230.000	1255.000	1245.000	0.000	0.000	0.000
GR	2072.000	1275.000	2068.000	1840.000	2067.000	2430.000	2067.000	2430.000	2067.000	2430.000
GR	2064.800	2815.000	2064.100	2930.000	2064.400	2961.000	2064.600	2994.000	2064.200	3006.000
GR	2064.800	3068.000	2064.500	3090.000	2063.000	3139.000	2063.000	3159.000	2071.300	3339.000
GR	2075.900	3457.000	2080.200	3519.000	2077.100	3567.000	2079.200	3582.000	0.000	0.000
NC	0.045	0.045	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 3209.5

X1	8.750	14.000	3185.000	3405.000	1380.000	1250.000	1325.000	0.000	0.000	0.000
GR	2081.900	2000.000	2079.700	2097.000	2078.300	2471.000	2075.400	2993.000	2075.500	3185.000
GR	2072.200	3196.000	2072.200	3223.000	2077.200	3237.000	2077.200	3267.000	2073.100	3277.000
GR	2072.500	3317.000	2075.600	3328.000	2079.000	3405.000	2093.000	3950.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 7.426
MEET FILE LVWDCUPR

7.43	8.17	2034.47	2034.31	2034.47	2035.94	1.47	0.00	0.00	2028.00
5300.	1580.	3378.	342.	317.	293.	52.	0.	0.	2028.00
0.00	4.98	11.54	6.53	0.050	0.045	0.050	0.000	2026.30	9801.80
0.008629	0.	0.	0.	0	4	0	0.00	234.37	10036.17

CCHV= 0.300 CEHV= 0.500
*SECNO 7.540

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	7.63	2039.53	0.00	0.00	2040.09	0.56	3.87	0.27	2041.50
5300.	2676.	2624.	0.	1099.	320.	0.	11.	6.	2041.50
0.03	2.44	8.19	0.00	0.050	0.045	0.020	0.000	2031.90	1090.98
0.006196	350.	640.	950.	2	0	0	0.00	1074.30	2326.00

CCHV= 0.100 CEHV= 0.300
*SECNO 7.580

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2314.5

7.58	8.53	2040.43	0.00	0.00	2040.49	0.06	0.35	0.05	2039.00
5300.	3410.	1890.	0.	2199.	764.	1.	22.	12.	2040.30
0.06	1.55	2.47	0.13	0.050	0.040	0.050	0.000	2031.90	1321.08
0.000784	260.	130.	160.	2	0	0	0.00	1191.16	2512.24

*SECNO 7.720

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 2575

7.72	9.30	2044.90	2044.90	0.00	2045.75	0.85	1.24	0.24	2041.40
5300.	1965.	2466.	843.	634.	245.	213.	57.	28.	2043.30
0.09	3.10	10.18	3.94	0.050	0.040	0.050	0.000	2035.10	2025.80
0.006038	745.	735.	650.	20	11	0	0.00	676.70	2702.50

1490 NH CARD USED
*SECNO 8.080

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	6.10	2056.40	0.00	0.00	2056.73	0.33	10.93	0.05	2053.50
5300.	3317.	1918.	65.	1010.	303.	50.	110.	60.	2055.50
0.21	3.28	6.33	1.28	0.050	0.045	0.050	0.000	2050.30	1738.16
0.005338	1875.	2005.	1855.	2	0	0	0.00	751.34	2529.50

)
1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	4.73	2061.63	0.00	0.00	2061.90	0.27	5.17	0.01	2060.00
5300.	2291.	1699.	1310.	721.	299.	378.	140.	77.	2059.70
0.28	3.18	5.68	3.46	0.050	0.045	0.050	0.000	2056.90	2595.69
0.005732	915.	970.	920.	3	0	0	0.00	835.03	3650.57

)
CCHV= 0.100 CEHV= 0.300
*SECNO 8.500
CENTERLINE STATION = 3139

8.50	4.13	2067.13	0.00	0.00	2067.31	0.19	5.40	0.01	2064.80
5300.	943.	4357.	0.	478.	1167.	0.	193.	101.	2071.30
0.38	1.97	3.73	0.00	0.050	0.045	0.050	0.000	2063.00	2354.23
0.003414	1230.	1245.	1255.	5	0	0	0.00	894.30	3248.53

)
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

*SECNO 8.750

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	4.81	2077.01	2077.01	0.00	2077.65	0.64	7.20	0.14	2075.50
5300.	1964.	3336.	0.	533.	439.	0.	223.	125.	2079.00
0.44	3.69	7.60	0.00	0.045	0.040	0.045	0.000	2072.20	2703.20
0.009673	1380.	1325.	1250.	16	12	0	0.00	625.74	3359.93

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Las Vegas Wash Overflow Study - CCRFCD
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 LVWOCJMU 50-YR Flood Analysis - July 1987

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.000000	0.00	0.0	0.	2036.750	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 7.426

3265 DIVIDED FLOW

MEET FILE LVWDCUPR

7.43	10.45	2036.75	2036.63	2036.75	2037.58	0.83	0.00	0.00	2028.00
9800.	4858.	4030.	912.	1253.	384.	299.	0.	0.	2028.00
0.00	3.88	10.49	3.15	0.050	0.045	0.050	0.000	2026.30	8726.67
0.004972	0.	0.	3.	0	4	0	0.00	1265.83	10637.50

CCHV= 0.300 CEHV= 0.500
*SECNO 7.540

3265 DIVIDED FLOW

EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	8.21	2040.11	0.00	0.00	2040.82	0.70	3.20	0.04	2041.50
9800.	6281.	3519.	0.	1783.	345.	0.	21.	13.	2041.50
0.02	3.52	10.20	0.00	0.050	0.045	0.020	0.000	2031.90	898.75
0.008943	350.	640.	950.	1	0	0	0.00	1314.25	2326.00

CCHV= 0.100 CEHV= 0.300
*SECNO 7.580

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2314.5

7.58	9.39	2041.29	0.00	0.00	2041.39	0.11	0.52	0.06	2039.00
9800.	6614.	3145.	40.	3039.	940.	66.	37.	20.	2040.30
0.05	2.18	3.35	0.61	0.050	0.040	0.050	0.000	2031.90	1303.11
0.001088	260.	130.	160.	2	0	0	0.00	1326.14	2629.25

*SECNO 7.720

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	CENTERLINE STATION = 2575								
7.72	10.69	2045.79	2045.79	0.00	2046.73	0.93	1.65	0.25	2041.40
9800.	4907.	3259.	1633.	1167.	274.	327.	86.	38.	2043.30
0.08	4.21	11.91	4.99	0.050	0.040	0.050	0.000	2035.10	1900.08
0.007126	745.	735.	650.	20	12	0	0.00	821.75	2721.83

1490 NH CARD USED
*SECNO 8.080

3301 HV CHANGED MORE THAN HVINS

	CENTERLINE STATION = 2409								
8.08	7.15	2057.45	0.00	0.00	2057.81	0.37	11.03	0.06	2053.50
9800.	6681.	2592.	526.	1690.	376.	238.	175.	78.	2055.50
0.19	3.95	6.90	2.21	0.051	0.045	0.050	0.000	2050.30	1650.00
0.004766	1875.	2005.	1955.	5	0	0	0.00	1033.49	2683.49

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

	CENTERLINE STATION = 3402								
8.26	5.54	2062.44	0.00	0.00	2062.81	0.37	4.99	0.00	2060.00
9800.	4864.	2500.	2437.	1265.	370.	562.	223.	101.	2059.70
0.25	3.84	6.76	4.41	0.050	0.045	0.050	0.000	2056.90	2318.67
0.006096	915.	970.	920.	3	0	0	0.00	1124.54	3666.12

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

	CENTERLINE STATION = 3139								
8.50	5.08	2068.08	0.00	0.00	2068.32	0.24	5.50	0.01	2064.80
9800.	2812.	6988.	3.	1171.	1585.	0.	293.	138.	2071.30
0.33	2.40	4.41	0.00	0.050	0.045	0.050	0.000	2063.00	1830.24
0.003370	1230.	1245.	1255.	4	0	0	0.00	1438.69	3268.93

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 8.750

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	CENTERLINE STATION = 3209.5								
8.75	5.42	2077.62	2077.62	0.00	2078.53	0.91	8.42	0.20	2075.50
9800.	4782.	5018.	0.	858.	543.	0.	357.	172.	2079.00
0.39	5.58	9.23	0.00	0.045	0.040	0.045	0.000	2072.20	2594.22
0.015353	1380.	1325.	1250.	11	8	0	0.00	779.43	3373.64

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  ************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ************************************************

  T1       Las Vegas Wash Overflow Study - CCRFCD
  T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
  T3       LVWDCJMU          100-YR Flood Analysis - July 1987

  J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

        0.        4.         0.         0.   0.000000       0.00       0.0         0.   2037.830      0.000

  J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

       3.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

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 15-OCT-87    13:45:41                                                                          PAGE   11

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         CLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

  *PROF 3

  CCHV=   0.100  CEHV=   0.300
  *SECNO 7.426

  3265 DIVIDED FLOW

            MEET FILE LVWDCUPR
       7.43      11.53   2037.83       0.00    2037.83    2038.63       0.80       0.00       0.00    2028.00
   18000.      10309.      5022.      2670.      2318.       427.       780.          0.         0.    2028.00
       0.00       4.45      11.75       3.42       0.050      0.045      0.050      0.000   2026.30    8674.29
  0.005413          0.         0.         0.          0          0          0       0.00   1681.79   10691.50
)
  CCHV=   0.300  CEHV=   0.500
  *SECNO 7.540

  3265 DIVIDED FLOW

            EASTERN AVE. BRIDGE
            CENTERLINE STATION = 2305
       7.54       9.20   2041.10       0.00       0.00    2041.70       0.59       3.00       0.06    2041.50
   18000.      14115.      3885.         0.      3091.       387.          0.        36.        16.    2041.50
       0.02       4.57      10.05       0.00       0.050      0.045      0.020      0.000   2031.90     687.72
  0.007791         350.       640.       950.          2          0          0       0.00   1406.10    2326.00
)
  CCHV=   0.100  CEHV=   0.300
  *SECNO 7.580
            CENTERLINE STATION = 2314.5
       7.58      10.33   2042.23       0.00       0.00    2042.43       0.20       0.70       0.04    2039.00
   18000.      12403.      5267.       330.      3979.      1133.       243.        60.        24.    2040.30
       0.04       3.12       4.65       1.35       0.050      0.040      0.050      0.000   2031.90    1283.40
  0.001635         260.       130.       160.          2          0          0       0.00   1443.07    2726.47
)
  *SECNO 7.720

  3301 HV CHANGED MORE THAN HVINS

  3685 20 TRIALS ATTEMPTED WSEL,CWSEL
  3693 PROBABLE MINIMUM SPECIFIC ENERGY
```

3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 2575

7.72	11.69	2046.79	2046.79	0.00	2047.94	1.15	2.34	0.28	2041.40
18000.	10613.	4334.	3053.	1884.	306.	482.	128.	45.	2043.30
0.07	5.63	14.17	6.33	0.050	0.040	0.050	0.000	2035.10	1773.52
0.008710	745.	735.	651.	20	12	0	0.00	1006.08	2779.60

1490 NH CARD USED
*SECNO 8.080

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	8.48	2058.79	0.00	0.00	2059.18	0.40	11.17	0.07	2053.50
18000.	12180.	3536.	2285.	2698.	469.	786.	271.	98.	2055.50
0.17	4.51	7.54	2.91	0.052	0.045	0.050	0.000	2050.30	1536.64
0.004231	1875.	2005.	1855.	6	0	0	0.00	1484.79	3021.43

1490 NH CARD USED
*SECNO 8.250

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	6.54	2063.44	0.00	0.00	2063.91	0.47	4.71	0.02	2060.00
18000.	10218.	3587.	4195.	2315.	457.	783.	351.	132.	2059.70
0.22	4.41	7.85	5.35	0.050	0.045	0.050	0.000	2056.90	1782.04
0.006209	915.	970.	923.	3	0	0	0.00	1694.95	3685.17

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	6.16	2069.16	0.00	0.00	2069.47	0.31	5.54	0.02	2064.80
18000.	7251.	10749.	0.	2330.	2093.	0.	464.	179.	2071.30
0.30	3.11	5.14	0.00	0.050	0.045	0.050	0.000	2063.00	1676.13
0.003376	1230.	1245.	1255.	4	0	0	0.00	1616.47	3292.59

*SECNO 8.750

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 3209.5

8.75	6.40	2078.60	2078.50	0.00	2079.70	1.10	8.31	0.24	2075.50
18000.	10429.	7571.	0.	1528.	739.	0.	568.	220.	2079.00
0.35	6.83	10.24	0.00	0.045	0.040	0.045	0.000	2072.20	2391.75
0.014498	1380.	1325.	1250.	11	8	0	0.00	1004.11	3395.87

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Las Vegas Wash Overflow Study - CCRFCD
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	3.	0.	0.000000	0.00	0.0	0.	2039.740	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 7.426
MEET FILE LVWDCUPR

7.43	13.44	2039.74	0.00	2039.74	2040.92	1.18	0.00	0.00	2028.00
54000.	33915.	8217.	11867.	5044.	504.	207.	0.	0.	2028.00
0.00	6.72	16.32	5.72	0.050	0.045	0.050	0.000	2026.30	8309.64
0.008375	0.	0.	0.	0	0	0	0.00	2477.36	10787.00

CCHV= 0.300 CEHV= 0.500
*SECNO 7.540
EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	11.77	2043.67	0.00	0.00	2044.51	0.84	3.48	0.10	2041.50
54000.	46077.	5371.	2552.	6696.	494.	398.	81.	25.	2041.50
0.02	6.88	10.87	6.41	0.050	0.045	0.020	0.000	2031.90	859.28
0.006687	350.	640.	950.	3	0	0	0.00	1834.81	2694.09

CCHV= 0.100 CEHV= 0.300
*SECNO 7.580
CENTERLINE STATION = 2314.5

7.58	13.01	2044.91	0.00	0.00	2045.47	0.56	0.94	0.03	2039.00
54000.	37013.	13113.	3863.	6754.	1683.	1177.	128.	35.	2040.30
0.03	5.48	7.79	3.29	0.050	0.040	0.050	0.000	2031.90	1227.31
0.002712	260.	130.	160.	2	0	0	0.00	1732.42	2959.73

*SECNO 7.720

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 2575

7.72	14.03	2049.13	2049.13	0.00	2050.98	1.85	3.65	0.39	2041.40
54000.	36395.	7345.	10260.	4007.	381.	1248.	255.	61.	2043.30
0.05	9.08	19.30	8.22	0.050	0.040	0.050	0.000	2035.10	1561.23
0.012053	745.	735.	650.	20	8	0	0.00	1484.17	3045.40

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.000
3280 CROSS SECTION 8.39 EXTENDED 0.03 FEET

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	11.53	2061.83	0.00	0.00	2062.23	0.41	11.11	0.14	2053.50
54000.	32033.	5587.	15979.	6987.	682.	3911.	624.	160.	2055.50
0.15	4.58	8.77	4.19	0.057	0.045	0.050	0.000	2050.30	480.00
0.003479	1875.	2005.	1855.	3	0	0	0.00	3111.38	3591.38

1490 NH CARD USED
*SECNO 8.250
CENTERLINE STATION = 3402

8.26	8.83	2065.73	0.00	0.00	2066.26	0.52	3.99	0.04	2060.00
54000.	38305.	6174.	9521.	8159.	656.	1415.	853.	229.	2059.70
0.20	4.69	9.41	6.73	0.053	0.045	0.050	0.000	2056.90	328.06
0.005518	915.	970.	920.	4	0	0	0.00	3433.35	3761.45

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500
CENTERLINE STATION = 3139

8.50	8.66	2071.66	0.00	0.00	2072.28	0.62	6.00	0.03	2064.80
54000.	28997.	25002.	1.	5617.	3353.	2.	1125.	306.	2071.30
0.26	5.16	7.46	0.62	0.050	0.045	0.050	0.000	2063.00	1323.11
0.004296	1230.	1245.	1255.	3	0	0	0.00	2025.11	3348.22

*SECNO 8.750

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	8.69	2080.89	2080.89	0.00	2082.73	1.84	9.51	0.37	2075.50
54000.	35965.	16780.	255.	3891.	1242.	70.	1347.	360.	2079.00
0.29	9.50	13.51	3.58	0.045	0.040	0.045	0.000	2072.20	2044.53
0.013366	1380.	1325.	1250.	5	5	0	0.00	1434.04	3478.57

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LVWDCJMU 25-YR F

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7.426	0.00	0.00	0.00	2026.30	5300.00	2034.47	2034.31	2035.94	86.28	11.54	662.25	570.58
7.426	0.00	0.00	0.00	2026.30	9800.01	2036.75	2036.63	2037.58	49.72	10.49	1936.19	1389.77

7.426	0.00	0.00	0.00	2026.30	18000.00	2037.83	0.00	2035.63	54.13	11.75	3525.50	2446.62
7.426	0.00	0.00	0.00	2026.30	54000.00	2039.74	0.00	2040.92	83.75	16.32	7621.71	5900.61
7.540	640.00	0.00	0.00	2031.90	5300.00	2039.53	0.00	2040.09	61.96	8.19	1418.16	673.34
7.540	640.00	0.00	0.00	2031.90	9800.00	2040.11	0.00	2040.82	89.43	10.20	2128.10	1036.30
7.540	640.00	0.00	0.00	2031.90	18000.00	2041.10	0.00	2041.70	77.91	10.05	3477.64	2039.21
7.540	640.00	0.00	0.00	2031.90	54000.00	2043.67	0.00	2044.51	66.87	10.87	7588.40	6603.41
7.580	130.00	0.00	0.00	2031.90	5300.00	2040.43	0.00	2040.49	7.84	2.47	2963.86	1892.94
7.580	130.00	0.00	0.00	2031.90	9800.00	2041.29	0.00	2041.39	10.88	3.35	4045.50	2971.73
7.580	130.00	0.00	0.00	2031.90	18000.00	2042.23	0.00	2042.43	16.35	4.65	5355.38	4450.93
7.580	130.00	0.00	0.00	2031.90	54000.00	2044.91	0.00	2045.47	27.12	7.79	9614.19	10369.41
* 7.720	735.00	0.00	0.00	2035.10	5300.00	2044.90	2044.90	2045.75	60.38	10.18	1092.09	682.08
* 7.720	735.00	0.00	0.00	2035.10	9800.00	2045.79	2045.79	2046.73	71.26	11.91	1767.29	1160.90
* 7.720	735.00	0.00	0.00	2035.10	18000.00	2046.79	2046.79	2047.94	87.10	14.17	2671.88	1928.71
* 7.720	735.00	0.00	0.00	2035.10	54000.00	2049.13	2049.13	2050.98	120.53	19.30	5636.19	4918.63
8.080	2005.00	0.00	0.00	2050.30	5300.00	2056.40	0.00	2056.73	53.38	6.33	1363.84	725.42
8.080	2005.00	0.00	0.00	2050.30	9800.00	2057.45	0.00	2057.81	47.66	6.90	2303.23	1419.52
8.080	2005.00	0.00	0.00	2050.30	18000.00	2058.78	0.00	2059.18	42.31	7.54	3952.88	2767.36
8.080	2005.00	0.00	0.00	2050.30	54000.00	2061.83	0.00	2062.23	34.79	8.77	11480.10	9155.75
8.260	970.00	0.00	0.00	2056.90	5300.00	2061.63	0.00	2061.90	57.32	5.68	1398.16	700.03
8.260	970.00	0.00	0.00	2056.90	9800.00	2062.44	0.00	2062.81	60.96	6.76	2187.43	1255.18
8.260	970.00	0.00	0.00	2056.90	18000.00	2063.44	0.00	2063.91	62.09	7.85	3555.22	2284.40
8.260	970.00	0.00	0.00	2056.90	54000.00	2065.73	0.00	2066.26	55.18	9.41	10229.29	7269.75
8.500	1245.00	0.00	0.00	2063.00	5300.00	2067.13	0.00	2067.31	34.14	3.73	1644.86	907.13
8.500	1245.00	0.00	0.00	2063.00	9800.00	2068.08	0.00	2068.32	33.70	4.41	2755.65	1688.18
8.500	1245.00	0.00	0.00	2063.00	18000.00	2069.16	0.00	2069.47	33.76	5.14	4422.35	3098.01
8.500	1245.00	0.00	0.00	2063.00	54000.00	2071.66	0.00	2072.28	42.96	7.46	8971.38	8239.19

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	8.750	1325.00	0.00	0.00	2072.20	5300.00	2077.01	2077.01	2077.65	96.73	7.60	971.93	538.88
*	8.750	1325.00	0.00	0.00	2072.20	9800.00	2077.62	2077.62	2078.53	153.53	9.23	1400.90	790.92
*	8.750	1325.00	0.00	0.00	2072.20	18000.00	2078.60	2078.60	2079.70	144.98	10.24	2267.04	1494.93
*	8.750	1325.00	0.00	0.00	2072.20	54000.00	2080.89	2080.89	2082.73	133.66	13.51	5202.86	4670.90

LVWDCJMU 25-YR F

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.426	5300.00	2034.47	0.00	0.00	0.00	234.37	0.00
7.426	9800.00	2036.75	2.28	0.00	0.00	1265.83	0.00
7.426	18000.00	2037.83	1.08	0.00	0.00	1681.79	0.00
7.426	54000.00	2039.74	1.91	0.00	0.00	2477.36	0.00
7.540	5300.00	2039.53	0.00	5.06	0.00	1074.30	640.00
7.540	9800.00	2040.11	0.58	3.36	0.00	1314.25	640.00
7.540	18000.00	2041.10	0.99	3.27	0.00	1406.10	640.00
7.540	54000.00	2043.67	2.56	3.93	0.00	1834.81	640.00
7.580	5300.00	2040.43	0.00	0.90	0.00	1191.16	130.00
7.580	9800.00	2041.29	0.85	1.17	0.00	1326.14	130.00
7.580	18000.00	2042.23	0.94	1.12	0.00	1443.07	130.00

	7.580	54000.00	2044.91	2.68	1.25	0.00	1732.42	130.00
*	7.720	5300.00	2044.90	0.00	4.46	0.00	676.70	735.00
*	7.720	9800.00	2045.79	0.89	4.50	0.00	821.75	735.00
*	7.720	18000.00	2046.79	1.00	4.56	0.00	1006.08	735.00
*	7.720	54000.00	2049.13	2.34	4.22	0.00	1484.17	735.00
	8.080	5300.00	2056.40	0.00	11.51	0.00	791.34	2005.00
	8.080	9800.00	2057.45	1.04	11.66	0.00	1033.49	2005.00
	8.080	18000.00	2058.78	1.33	11.99	0.00	1484.79	2005.00
	8.080	54000.00	2061.83	3.05	12.69	0.00	3111.38	2005.00
	8.250	5300.00	2061.63	0.00	5.23	0.00	835.03	970.00
	8.250	9800.00	2062.44	0.81	4.99	0.00	1124.54	970.00
	8.250	18000.00	2063.44	1.00	4.66	0.00	1694.99	970.00
	8.250	54000.00	2065.73	2.29	3.91	0.00	3433.39	970.00
	8.500	5300.00	2067.13	0.00	5.50	0.00	894.30	1245.00
	8.500	9800.00	2068.08	0.95	5.64	0.00	1439.69	1245.00
	8.500	18000.00	2069.16	1.08	5.72	0.00	1616.47	1245.00
	8.500	54000.00	2071.66	2.50	5.93	0.00	2025.11	1245.00
*	8.750	5300.00	2077.01	0.00	9.88	0.00	625.74	1325.00
*	8.750	9800.00	2077.62	0.61	9.54	0.00	779.43	1325.00
*	8.750	18000.00	2078.60	0.98	9.44	0.00	1004.11	1325.00
*	8.750	54000.00	2080.89	2.29	9.23	0.00	1434.04	1325.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 7.720 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.720 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.720 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 7.720 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.720 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.720 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 7.720 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.720 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.720 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 7.720 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.720 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.720 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.750 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.750 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.750 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.750 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.750 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.750 PROFILE= 3 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.750 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.750 PROFILE= 4 MINIMUM SPECIFIC ENERGY

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  19-FEB-88 TIME   09:15:23          *
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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See 7.54 – 8.75

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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X          XXXXX     XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX

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 *************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 *************************************************

C
T1       Las Vegas Wash Overflow Study - CCRFCD
T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3       JMU_NONDAM          Nondamaging Flow Analysis - February 1988

J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.          2.         0.         0.  0.000000       0.00       0.0        0.   2034.470      0.000
J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
       1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3   VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC       0.050      0.050      0.045      0.100      0.300      0.000      0.000      0.000      0.000      0.000
QT       5.000    300.000   1000.000   1500.000   2000.000  30000.000      0.000      0.000      0.000      0.000
NC       0.050      0.020      0.045      0.300      0.500      0.000      0.000      0.000      0.000      0.000
           EASTERN AVE. BRIDGE
           CENTERLINE STATION = 2305
X1       7.540     11.000   2284.000   2326.000    350.000    950.000    640.000      0.000      0.000      0.000
GR    2044.500    850.000   2040.000    900.000   2037.400   1950.000   2041.500   2284.000   2031.500   2284.000
GR    2031.900   2326.000   2041.500   2326.000   2043.700   2700.000   2045.000   2980.000   2046.500   3380.000
GR    2048.000   3650.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
BT      14.000   2284.000   2041.500   2031.900   2287.000   2041.500   2036.200   2290.000   2041.500   2038.000
BT    2294.000   2041.500   2039.000   2298.000   2041.500   2038.000   2301.000   2041.500   2036.200   2304.000
BT    2041.500   2031.900   2306.000   2041.500   2031.900   2309.000   2041.500   2036.200   2312.000   2041.500
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BT	2038.300	2316.000	2041.500	2039.000	2320.000	2041.500	2038.000	2323.000	2041.500	2036.200
BT	2326.000	2041.500	2031.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 2314.5									
X1	7.580	16.000	2290.000	2495.000	260.000	160.000	130.000	0.000	0.000	0.000
GR	2045.500	1215.000	2040.000	1330.000	2040.000	1470.000	2036.400	1670.000	2036.400	1671.000
GR	2039.000	2290.000	2039.000	2290.000	2031.900	2303.500	2031.500	2326.500	2037.560	2336.000
GR	2036.300	2433.000	2038.000	2461.000	2040.300	2495.000	2041.600	2672.000	2044.000	2880.000
GR	2048.300	3230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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	CENTERLINE STATION = 2575									
X1	7.720	19.000	2553.000	2585.000	745.000	650.000	735.000	0.000	0.000	0.000
GR	2052.300	1410.000	2048.000	1621.000	2048.000	1621.000	2048.000	1621.000	2048.000	1621.000
GR	2045.300	2000.000	2045.000	2000.000	2043.100	2473.000	2041.400	2529.000	2041.400	2553.000
GR	2035.300	2561.000	2035.100	2575.000	2043.300	2585.000	2043.300	2640.000	2039.500	2657.000
GR	2043.500	2668.000	2046.400	2735.000	2049.200	3053.000	2052.600	3189.000	0.000	0.000
NH	5.000	0.030	830.000	0.125	1800.000	0.050	2349.000	0.045	2419.000	0.050
NH	3700.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 2409									
X1	8.380	23.000	2349.000	2419.000	1875.000	1855.000	2005.000	0.000	0.000	0.000
GR	2061.800	480.000	2060.000	680.000	2060.000	830.000	2060.000	930.000	2060.000	1030.000
GR	2060.300	1433.000	2056.000	1773.000	2056.000	1773.000	2056.000	1773.000	2056.000	1773.000
GR	2053.800	2000.000	2053.600	2098.000	2055.000	2194.000	2055.500	2332.000	2053.500	2349.000
GR	2051.400	2390.000	2050.300	2409.000	2055.500	2419.000	2056.900	2589.000	2058.000	2779.000
GR	2060.300	3400.000	2060.000	3500.000	2062.000	3600.000	0.000	0.000	0.000	0.000
NH	5.000	0.050	1350.000	0.125	2000.000	0.050	3358.000	0.045	3445.000	0.050
NH	3792.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 3402									
X1	8.260	32.000	3358.000	3445.000	915.000	920.000	970.000	0.000	0.000	0.000
GR	2068.300	260.000	2064.000	380.000	2064.000	1350.000	2065.000	1650.000	2063.000	1820.000
GR	2064.300	2000.000	2063.700	2033.000	2063.200	2182.000	2062.500	2208.000	2062.900	2254.000
GR	2062.500	2283.000	2062.500	2309.000	2062.300	2345.000	2063.400	2533.000	2063.300	2590.000
GR	2058.900	2605.000	2061.700	2616.000	2060.500	2697.000	2059.400	2724.000	2060.000	2820.000
GR	2061.300	2837.000	2062.400	2962.000	2061.300	3144.000	2059.000	3174.000	2059.900	3243.000
GR	2060.100	3358.000	2056.900	3402.000	2057.400	3421.000	2059.700	3445.000	2059.500	3610.000
GR	2063.700	3690.000	2066.600	3792.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 3139									
X1	8.500	19.000	2815.000	3339.000	1230.000	1255.000	1245.000	0.000	0.000	0.000
GR	2072.100	1275.000	2068.000	1840.000	2067.000	2430.000	2067.000	2430.000	2067.000	2430.000
GR	2064.800	2815.000	2064.100	2930.000	2064.400	2961.000	2064.600	2994.000	2064.200	3006.000
GR	2064.300	3069.000	2064.500	3090.000	2063.000	3139.000	2063.000	3159.000	2071.300	3339.000
GR	2075.900	3457.000	2080.200	3519.000	2077.100	3567.000	2079.200	3582.000	0.000	0.000
NC	0.045	0.045	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 3209.5									
X1	8.750	14.000	3185.000	3405.000	1380.000	1250.000	1325.000	0.000	0.000	0.000
GR	2081.900	2000.000	2079.700	2097.000	2078.300	2471.000	2075.400	2993.000	2075.500	3185.000
GR	2072.200	3196.000	2072.200	3223.000	2077.200	3237.000	2077.200	3267.000	2073.100	3277.000
GR	2072.500	3317.000	2075.600	3328.000	2079.000	3405.000	2093.000	3950.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

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 *PROF 1

 CCHV=   0.100  CEHV=   0.300
 CCHV=   0.300  CEHV=   0.500
 *SECNO 7.540
          EASTERN AVE. BRIDGE
          CENTERLINE STATION = 2305
      7.54       2.57  2034.47       0.00  2034.47  2034.59       0.12       0.00       0.00  2041.50
       300.         0.      300.         0.      0.      108.         0.         0.         0.   2041.50
      0.00       0.00       2.78       0.00     0.050    0.045      0.020     0.000   2031.90   2284.00
  0.002347       350.       640.       950.         0        0          0      0.00     42.00   2326.00

 CCHV=   0.100  CEHV=   0.300
 *SECNO 7.580
          CENTERLINE STATION = 2314.5
      7.58       2.86  2034.76       0.00      0.00  2034.98       0.21       0.36       0.03  2039.00
       300.         0.      300.         0.      0.      81.         0.         0.         0.   2040.30
      0.01       0.00       3.72       0.00     0.050    0.040      0.050     0.000   2031.90   2297.76
  0.003276       260.       130.       160.         2        0          0      0.00     33.35   2331.11

 *SECNO 7.720
          CENTERLINE STATION = 2575
      7.72       3.06  2038.16       0.00      0.00  2038.66       0.51       3.60       0.09  2041.40
       300.         0.      300.         0.      0.      53.         0.         1.         1.   2043.30
      0.05       0.00       5.71       0.00     0.050    0.040      0.050     0.000   2035.10   2557.25
  0.008095       745.       735.       650.         3        0          0      0.00     21.49   2578.73

 1490 NH CARD USED
 *SECNO 8.080
          CENTERLINE STATION = 2409
      8.08       2.95  2053.25       0.00      0.00  2053.44       0.18      14.74       0.03  2053.50
       300.         0.      300.         0.      0.      88.         0.         5.         2.   2055.50
      0.21       0.00       3.42       0.00     0.050    0.045      0.050     0.000   2050.30   2353.77
  0.006709      1875.      2005.      1855.         6        0          0      0.00     60.92   2414.68

 1490 NH CARD USED
 *SECNO 8.250
1
  19-FEB-88     09:15:24                                                                  PAGE     4

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XML        XNCH       XNR        WTN        ELMIN        SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


  3265 DIVIDED FLOW

          CENTERLINE STATION = 3402
      8.26       2.37  2059.27       0.00      0.00  2059.41       0.14       5.97       0.00  2060.00
       300.         2.      298.         0.      4.      98.         1.         7.         4.   2059.70
      0.30       0.59       3.05       0.00     0.050    0.045      0.050     0.000   2056.90   2603.77
  0.005668       915.       970.       920.         4        0          0      0.00     98.11   3440.43

 CCHV=   0.100  CEHV=   0.300
 *SECNO 8.500
          CENTERLINE STATION = 3139
      8.50       1.82  2064.82       0.00      0.00  2064.85       0.03       5.43       0.01  2064.80
       300.         0.      300.         0.      0.      222.         0.        11.        11.   2071.30
      0.55       0.02       1.35       0.00     0.050    0.045      0.050     0.000   2063.00   2812.39
  0.003461      1230.      1245.      1255.         6        0          0      0.00    385.97   3198.36

 *SECNO 8.750

 3265 DIVIDED FLOW
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```
          CENTERLINE STATION = 3209.5
      8.75      1.27  2073.47      0.00      0.00  2073.77      0.31      8.84      0.08  2075.50
     300.        0.     300.        0.        0.      68.        0.       16.       18.   2079.00
      0.64      0.00     4.44      0.00     0.045    0.040     0.045    0.000   2072.20   3191.78
 0.017809     1380.    1325.     1250.         4        0         0     0.00     79.09   3320.43
)
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 ***********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***********************************************

 T1       Las Vegas Wash Overflow Study - CCRFCD
 T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
 T3       JMU_NONDAM        Flow Analysis - February 1988

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL      FQ
       0.        3.         0.        0.  0.000000        0.00       0.0         0.   2036.750     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC      IBW        CHNIM     ITRACE
     2.000      0.000    -1.000     0.000     0.000     0.000     0.000      0.000      0.000     0.000

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       ARCB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 2

 CCHV=   0.100 CEHV=   0.300
 CCHV=   0.300 CEHV=   0.500
 *SECNO 7.540
          EASTERN AVE. BRIDGE
          CENTERLINE STATION = 2305
     7.54      4.85  2036.75      0.00  2036.75  2037.12      0.37      0.00      0.00  2041.50
  1000.         0.    1000.        0.        0.      204.      0.        0.        0.    2041.50
     0.00      0.00     4.91      0.00     0.050    0.045     0.020    0.000   2031.90   2284.00
 0.003551      350.     640.      950.         0        0         0     0.00     42.00   2326.00
)
 CCHV=   0.100 CEHV=   0.300
 *SECNO 7.580

 3265 DIVIDED FLOW

          CENTERLINE STATION = 2314.5
     7.58      5.69  2037.59      0.00      0.00  2037.70      0.11      0.55      0.03  2039.00
  1000.       277.     723.        0.      210.      240.      0.        1.        1.    2040.30
     0.02      1.32     3.02      0.00     0.050    0.040     0.050    0.000   2031.90   1603.79
 0.003909      260.     130.      160.         3        0         0     0.00    509.84   2451.47
)
 *SECNO 7.720

 3265 DIVIDED FLOW
```

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2575

7.72	5.86	2040.96	0.00	0.00	2041.94	0.98	3.98	0.26	2041.40
1000.	0.	984.	16.	0.	123.	8.	6.	6.	2043.30
0.04	0.00	8.02	2.10	0.050	0.040	0.050	0.000	2035.10	2553.58
0.007967	745.	735.	650.	2	0	0	0.00	39.33	2661.23

1490 NH CARD USED
*SECNO 8.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	4.24	2054.54	0.00	0.00	2054.78	0.24	12.76	0.07	2053.50
1000.	235.	765.	0.	145.	173.	0.	16.	14.	2055.50
0.19	1.62	4.42	0.00	0.050	0.045	0.050	0.000	2050.30	1923.67
0.005279	1975.	2005.	1855.	5	0	0	0.00	315.76	2417.15

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	3.22	2060.12	0.00	0.00	2060.31	0.19	5.52	0.01	2060.00
1000.	182.	683.	135.	126.	168.	90.	24.	23.	2059.70
0.27	1.44	4.07	1.52	0.050	0.045	0.050	0.000	2056.90	2600.84
0.006363	915.	970.	920.	6	0	0	0.00	586.64	3621.82

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	2.47	2065.47	0.00	0.00	2065.53	0.06	5.21	0.01	2064.80
1000.	30.	970.	0.	39.	477.	0.	37.	39.	2071.30
0.44	0.78	2.03	0.00	0.050	0.045	0.050	0.000	2063.00	2698.02
0.002965	1230.	1245.	1255.	6	0	0	0.00	514.52	3212.53

*SECNO 8.750

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 3209.5

8.75	2.12	2074.32	2074.32	0.00	2075.12	0.79	8.29	0.22	2075.50

1000.	0.	1000.	0.	0.	140.	0.	47.	48.	2079.00	
0.50	0.00	7.16	0.00	0.045	0.040	0.045	0.000	2072.20	3186.92	
0.020826	1380.	1325.	1251.	9	15	0	0.00	89.47	3323.47	

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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1      Las Vegas Wash Overflow Study - CCRFCD
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      JMU_NONDAM      Flow Analysis - February 1988
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.000000	0.00	0.0	0.	2037.830	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*PROF 3

CCHV=   0.100  CEHV=   0.300
CCHV=   0.300  CEHV=   0.500
*SECNO 7.540

3265 DIVIDED FLOW

          EASTERN AVE. BRIDGE
          CENTERLINE STATION = 2305
     7.54      5.93  2037.83      0.00  2037.83  2038.36      0.53      0.00      0.00  2041.50
   1500.       31.     1469.        0.     45.      249.         0.        0.        0.  2041.50
     0.00      0.69     5.90      0.00     0.050    0.045     0.020     0.000  2031.90  1776.37
 0.004142     350.      640.      950.        0        0         0      0.00    250.65  2326.80

CCHV=   0.100  CEHV=   0.300
*SECNO 7.580

3265 DIVIDED FLOW

          CENTERLINE STATION = 2314.5
     7.58      6.74  2038.64      0.00     0.00  2038.68      0.04      0.27      0.05  2039.00
   1500.       702.     798.        1.    738.      418.         1.        3.        3.  2040.30
     0.03      0.95     1.91      0.00     0.050    0.040     0.050     0.000  2031.90  1545.65
 0.000879     260.      130.      160.        2        0         0      0.00    838.01  2470.44

*SECNO 7.720

3265 DIVIDED FLOW
```

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 2575

7.72	5.41	2041.51	2041.51	0.00	2043.16	1.64	1.61	0.48	2041.40
1500.	2.	1450.	48.	3.	139.	15.	14.	11.	2043.30
0.05	0.75	10.44	3.22	0.050	0.040	0.050	0.000	2035.10	2525.22
0.012193	745.	735.	650.	20	8	0	0.00	72.45	2662.83

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.080

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	4.84	2055.14	0.00	0.00	2055.32	0.18	12.02	0.15	2053.50
1500.	602.	898.	0.	331.	215.	0.	30.	22.	2055.50
0.22	1.82	4.18	0.00	0.050	0.045	0.050	0.000	2050.30	1861.09
0.003634	1875.	2005.	1855.	7	0	0	0.00	456.58	2418.32

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	3.36	2060.26	0.00	0.00	2060.54	0.27	5.19	0.03	2060.00
1500.	339.	919.	242.	172.	180.	114.	41.	33.	2059.70
0.29	1.97	5.11	2.12	0.050	0.045	0.050	0.000	2056.90	2600.36
0.009139	915.	970.	923.	3	0	0	0.00	557.36	3624.47

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	2.85	2065.85	0.00	0.00	2065.93	0.07	5.37	0.02	2064.80
1500.	95.	1405.	0.	97.	633.	0.	58.	50.	2071.30
0.45	0.97	2.22	0.00	0.050	0.045	0.050	0.000	2063.00	2630.43
0.002507	1230.	1245.	1255.	6	0	0	0.00	590.48	3220.91

*SECNO 8.750

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	XCH	AROB	VOL	YWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	YLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 3209.5

8.75	2.64	2074.84	2074.34	0.00	2075.83	1.00	7.20	0.28	2075.50
1500.	0.	1500.	0.	0.	187.	0.	72.	61.	2079.00
0.50	0.00	8.01	0.00	0.045	0.040	0.045	0.000	2072.20	3187.22
0.019412	1380.	1325.	1250.	20	11	0	0.00	95.68	3325.29

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Las Vegas Wash Overflow Study - CCRFCD
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 JMU_NONDAM Flow Analysis - February 1988

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.000000	0.00	0.0	0.	2039.740	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	4.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
CCHV= 0.300 CEHV= 0.500
*SECNO 7.540

3265 DIVIDED FLOW

EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	7.84	2039.74	0.00	2039.74	2039.80	0.06	0.00	0.00	2041.50
2000.	1116.	884.	0.	1329.	329.	0.	0.	0.	2041.50
0.00	0.84	2.68	0.00	0.050	0.045	0.020	0.000	2031.90	1005.00
0.000648	350.	640.	950.	9	0	0	0.00	1177.62	2326.00

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CCHV= 0.100 CEHV= 0.300
*SECNO 7.580

CENTERLINE STATION = 2314.5

7.53	7.96	2039.86	0.00	0.00	2039.87	0.01	0.07	0.00	2039.00

2000.	1212.	788.	0.	1672.	649.	0.	10.	6.	2040.30
0.06	0.72	1.21	0.00	0.050	0.040	0.050	0.000	2031.90	1477.85
0.000225	260.	130.	160.	0	0	0	0.00	1010.63	2488.48

*SECNO 7.720

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 2575

7.72	7.42	2042.52	2042.52	0.00	2043.99	1.47	0.50	0.44	2041.40
2000.	126.	1748.	126.	47.	169.	34.	32.	16.	2043.30
0.08	2.65	10.32	3.76	0.050	0.040	0.050	0.000	2035.10	2492.15
0.009705	745.	735.	650.	20	11	0	0.00	114.14	2665.74

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.080

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	5.13	2055.43	0.10	0.00	2055.63	0.20	11.52	0.13	2053.50
2000.	931.	1069.	0.	452.	234.	0.	53.	30.	2055.50
0.24	2.06	4.57	0.00	0.050	0.045	0.050	0.000	2050.30	1832.68
0.003920	1875.	2005.	1855.	5	0	0	0.00	563.87	2418.85

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	3.60	2060.50	0.03	0.00	2060.75	0.25	5.10	0.01	2060.00
2000.	577.	1035.	388.	256.	201.	160.	67.	43.	2059.70
0.31	2.25	5.14	2.43	0.050	0.045	0.050	0.000	2056.90	2599.52
0.007926	915.	970.	920.	4	0	0	0.00	616.95	3629.22

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	3.08	2066.08	0.00	0.00	2066.17	0.09	5.40	0.02	2064.80
2000.	167.	1833.	0.	144.	726.	0.	68.	61.	2071.30
0.46	1.16	2.53	0.00	0.050	0.045	0.050	0.000	2063.00	2590.43
0.002740	1230.	1245.	1255.	6	0	0	0.00	635.43	3225.87

*SECNO 8.750

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3301 NO CHANNEL MORE THAN NVERS

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	3.04	2075.24	2075.24	0.00	2076.45	1.21	7.70	0.33	2075.50
2000.	0.	2000.	0.	0.	227.	0.	105.	72.	2079.00
0.50	0.00	8.82	0.00	0.045	0.040	0.045	0.000	2072.20	3185.87
0.019515	1380.	1325.	1250.	12	8	0	0.00	100.57	3326.72

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Las Vegas Wash Overflow Study - CCRFCD
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstac
T3 JMU_NONDAM Flow Analysis - February 1988

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	2.	6.	0.	0.	0.000000	0.00	0.0	0.	2039.740	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 5

CCHV= 0.100 CEHV= 0.300
CCHV= 0.300 CEHV= 0.500
*SECNO 7.540

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED
EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	9.55	2041.45	2041.45	2039.74	2042.62	1.17	0.00	0.00	2041.50
30000.	24348.	5652.	0.	3560.	401.	0.	0.	0.	2041.50

0.00	6.84	14.10	0.00	0.050	0.045	0.020	0.000	2031.90	883.94
0.014836	350.	640.	950.	0	10	0	0.00	1437.58	2326.00

CCHV= 0.100 CEHV= 0.300
*SECNO 7.530

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2314.5

7.58	11.47	2043.37	0.00	0.00	2043.69	0.32	0.99	0.08	2039.00
30000.	20772.	8027.	1201.	5140.	1367.	564.	30.	8.	2040.30
0.01	4.04	5.87	2.13	0.050	0.040	0.050	0.000	2031.90	1259.56
0.002033	260.	130.	160.	3	0	0	0.00	1565.75	2825.30

*SECNO 7.720

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 2575

7.72	12.73	2047.83	2047.83	0.00	2049.20	1.37	2.82	0.31	2041.40
30000.	19198.	5492.	5309.	2757.	339.	744.	121.	32.	2043.30
0.04	6.96	16.21	7.14	0.050	0.040	0.050	0.000	2035.10	1642.93
0.009931	745.	735.	650.	20	8	0	0.00	1254.07	2897.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.080

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	9.81	2060.11	0.00	0.00	2060.54	0.43	11.25	0.09	2053.50
30000.	19108.	4618.	6273.	3933.	562.	1869.	342.	119.	2055.50
0.14	4.86	8.22	3.36	0.053	0.045	0.050	0.000	2050.30	667.96
0.003952	1875.	2005.	1855.	6	0	0	0.00	2837.46	3505.42

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	7.57	2064.47	0.00	0.00	2064.94	0.48	4.39	0.01	2060.00
30000.	19052.	4665.	6283.	4404.	546.	1042.	472.	183.	2059.70
0.19	4.33	8.55	6.03	0.051	0.045	0.050	0.000	2056.90	366.02
0.005812	915.	970.	920.	3	0	0	0.00	3145.36	3716.94

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	7.21	2070.21	0.00	0.00	2070.62	0.41	5.67	0.01	2064.80
30000.	14254.	15746.	0.	3605.	2607.	0.	645.	252.	2071.30
0.26	3.95	6.04	0.00	0.050	0.045	0.050	0.000	2063.00	1527.60
0.003706	1230.	1245.	1255.	3	0	0	0.00	1787.80	3315.40

*SECNO 8.750

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	7.35	2079.55	2079.55	0.00	2080.92	1.37	8.74	0.29	2075.50
30000.	19093.	10897.	10.	2406.	948.	6.	795.	301.	2079.00
0.30	7.93	11.50	1.65	0.045	0.040	0.045	0.000	2072.20	2136.79
0.013896	1380.	1325.	1250.	10	8	0	0.00	1289.66	3426.45

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

JMU_NCNDAM Nonda

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	7.540	0.00	0.00	0.00	2031.90	300.00	2034.47	0.00	2034.59	23.47	2.78	107.94	61.92
	7.540	0.00	0.00	0.00	2031.90	1000.00	2036.75	0.00	2037.12	35.51	4.91	203.70	167.81
	7.540	0.00	0.00	0.00	2031.90	1500.00	2037.83	0.00	2038.36	41.42	5.90	293.91	253.07
	7.540	0.00	0.00	0.00	2031.90	2000.00	2039.74	0.00	2039.80	6.48	2.68	1657.86	785.74
•	7.540	0.00	0.00	0.00	2031.90	30000.00	2041.45	2041.45	2042.62	148.36	14.10	3961.19	2462.98
	7.580	130.00	0.00	0.00	2031.90	300.00	2034.76	0.00	2034.98	32.76	3.72	80.62	52.42
	7.580	130.00	0.00	0.00	2031.90	1000.00	2037.59	0.00	2037.70	39.09	3.02	449.35	159.95
	7.580	130.00	0.00	0.00	2031.90	1500.00	2038.64	0.00	2038.68	8.79	1.91	1155.76	506.08
	7.580	130.00	0.00	0.00	2031.90	2000.00	2039.86	0.00	2039.87	2.25	1.21	2321.07	1333.33
	7.580	130.00	0.00	0.00	2031.90	30000.00	2043.37	0.00	2043.69	20.33	5.87	7070.97	6653.29
	7.720	735.00	0.00	0.00	2035.10	300.00	2038.16	0.00	2038.66	80.95	5.71	52.56	33.34
	7.720	735.00	0.00	0.00	2035.10	1000.00	2040.96	0.00	2041.94	79.67	8.02	130.45	112.03
*	7.720	735.00	0.00	0.00	2035.10	1500.00	2041.51	2041.51	2043.16	121.93	10.44	156.74	135.84
*	7.720	735.00	0.00	0.00	2035.10	2000.00	2042.52	2042.52	2043.99	97.05	10.32	250.40	203.02
•	7.720	735.00	0.00	0.00	2035.10	30000.00	2047.83	2047.83	2049.20	99.31	16.21	3840.02	3010.40
	8.080	2005.00	0.00	0.00	2050.30	300.00	2053.25	0.00	2053.44	67.09	3.42	87.73	36.63
	8.080	2005.00	0.00	0.00	2050.30	1000.00	2054.54	0.00	2054.78	52.79	4.42	318.45	137.63
	8.080	2005.00	0.00	0.00	2050.30	1500.00	2055.14	0.00	2055.32	36.33	4.18	545.66	248.84
	8.080	2005.00	0.00	0.00	2050.30	2000.00	2055.43	0.00	2055.63	39.20	4.57	686.17	319.45
	8.080	2005.00	0.00	0.00	2050.30	30000.00	2060.11	0.00	2060.54	39.52	8.22	6363.79	4772.21
	8.260	970.00	0.00	0.00	2056.90	300.00	2059.27	0.00	2059.41	56.68	3.05	101.36	39.85
	8.260	970.00	0.00	0.00	2056.90	1000.00	2060.12	0.00	2060.31	63.63	4.07	383.46	125.36
	8.260	970.00	0.00	0.00	2056.90	1500.00	2060.26	0.00	2060.54	91.39	5.11	465.84	156.91
	8.260	970.00	0.00	0.00	2056.90	2000.00	2060.50	0.00	2060.75	79.26	5.14	617.14	224.65
	8.260	970.00	0.00	0.00	2056.90	30000.00	2064.47	0.00	2064.94	58.12	8.55	5991.77	3935.16

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOK*S	VCH	AREA	.DIK
	8.500	1245.00	0.00	0.00	2063.00	300.00	2064.82	0.00	2064.85	34.61	1.35	222.20	50.99
	8.500	1245.00	0.00	0.00	2063.00	1000.00	2065.47	0.00	2065.53	29.65	2.03	516.45	183.65
	8.500	1245.00	0.00	0.00	2063.00	1500.00	2065.85	0.00	2065.93	25.07	2.22	729.85	299.58
	8.500	1245.00	0.00	0.00	2063.00	2000.00	2066.08	0.00	2066.17	27.40	2.53	869.92	382.07
	8.500	1245.00	0.00	0.00	2063.00	30000.00	2070.21	0.00	2070.62	37.06	6.04	6212.10	4927.74
	8.750	1325.00	0.00	0.00	2072.20	300.00	2073.47	0.00	2073.77	178.09	4.44	67.56	22.48
*	8.750	1325.00	0.00	0.00	2072.20	1000.00	2074.32	2074.32	2075.12	208.26	7.16	139.76	69.29
*	8.750	1325.00	0.00	0.00	2072.20	1500.00	2074.84	2074.84	2075.83	194.12	8.01	187.20	107.66
*	8.750	1325.00	0.00	0.00	2072.20	2000.00	2075.24	2075.24	2076.45	195.15	8.82	226.75	143.17
*	8.750	1325.00	0.00	0.00	2072.20	30000.00	2079.55	2079.55	2080.92	138.96	11.50	3359.76	2544.91

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	7.540	300.00	2034.47	0.00	0.00	0.00	42.00	0.00
	7.540	1000.00	2036.75	2.28	0.00	0.00	42.00	0.00
	7.540	1500.00	2037.83	1.08	0.00	0.00	250.65	0.00
	7.540	2000.00	2039.74	1.91	0.00	0.00	1177.62	0.00
*	7.540	30000.00	2041.45	1.71	0.00	1.71	1437.58	0.00
	7.580	300.00	2034.76	0.00	0.29	0.00	33.35	130.00
	7.580	1000.00	2037.59	2.83	0.84	0.00	509.84	130.00
	7.580	1500.00	2038.64	1.05	0.81	0.00	838.01	130.00
	7.580	2000.00	2039.86	1.22	0.12	0.00	1010.63	130.00
	7.580	30000.00	2043.37	3.51	1.92	0.00	1565.75	130.00
	7.720	300.00	2038.16	0.00	3.39	0.00	21.49	735.00
	7.720	1000.00	2040.96	2.80	3.37	0.00	39.33	735.00
*	7.720	1500.00	2041.51	0.56	2.88	0.00	72.45	735.00
*	7.720	2000.00	2042.52	1.00	2.66	0.00	114.14	735.00
*	7.720	30000.00	2047.83	5.31	4.46	0.00	1254.07	735.00
	8.080	300.00	2053.25	0.00	15.10	0.00	60.92	2005.00
	8.080	1000.00	2054.54	1.28	13.58	0.00	315.76	2005.00
	8.080	1500.00	2055.14	0.60	13.62	0.00	456.58	2005.00
	8.080	2000.00	2055.43	0.29	12.91	0.00	563.87	2005.00
	8.080	30000.00	2060.11	4.68	12.28	0.00	2837.46	2005.00
	8.260	300.00	2059.27	0.00	6.01	0.00	98.11	970.00
	8.260	1000.00	2060.12	0.85	5.58	0.00	586.64	970.00
	8.260	1500.00	2060.26	0.14	5.12	0.00	597.36	970.00
	8.260	2000.00	2060.50	0.24	5.07	0.00	616.95	970.00
	8.260	30000.00	2064.47	3.96	4.36	0.00	3145.36	970.00
	8.500	300.00	2064.82	0.00	5.56	0.00	385.97	1245.00
	8.500	1000.00	2065.47	0.64	5.35	0.00	514.52	1245.00
	8.500	1500.00	2065.85	0.39	5.59	0.00	590.48	1245.00
	8.500	2000.00	2066.08	0.23	5.58	0.00	635.43	1245.00
	8.500	30000.00	2070.21	4.13	5.75	0.00	1787.80	1245.00
	8.750	300.00	2073.47	0.00	8.64	0.00	79.09	1325.00
*	8.750	1000.00	2074.32	0.86	8.86	0.00	89.47	1325.00
*	8.750	1500.00	2074.84	0.51	8.98	0.00	95.68	1325.00
*	8.750	2000.00	2075.24	0.40	9.16	0.00	100.57	1325.00
*	8.750	30000.00	2079.55	4.31	9.34	0.00	1289.66	1325.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=    7.540  PROFILE= 5  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    7.720  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    7.720  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    7.720  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    7.720  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    7.720  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    7.720  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    7.720  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    7.720  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    7.720  PROFILE= 5  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.750  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.750  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.750  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.750  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.750  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    8.750  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.750  PROFILE= 4  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.750  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.750  PROFILE= 5  MINIMUM SPECIFIC ENERGY
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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  53,51,52,53,54,55
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EOF..

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SF
TN          CAREY AVENUE LOE BREAKOUT
NS       6   8.911     9.06     8.27     .050    .0025
NG       0  1837.8      200  1837.8      280  1838.0      420  1840.0      530  1842.0
NG     810  1842.9
EE
        24
    8.19   START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
    8.19   CL = 8980
    8.27   LAKE MEAD BLVD BRIDGE
    8.27   CL = 9050
    8.31   CL = 9080
   8.311   Effective flow width restricted to ridge (LOB) and road (ROP)
   8.311   with ET card and discharges adjusted based on flow distribution
    8.61   CL = 8010
    8.85   CL = 7090
    8.90   CAREY AVE BRIDGE
    8.90   CL = 10000
    8.91   CL = 10000
   8.911   Split flow option used to compute left overbank breakouts.
   8.911   Right overbank effective flow width restricted to 1:1 expansion
   8.911   and discharges adjusted using flow distribution.
    9.06   CL = 7310
    9.30   CL = 7270
    9.41   LAS VEGAS BLVD BRIDGE
    9.41   CL = 5430
    9.43   CL = 5050
    9.47   Effective flow width restricted to 1:1 expansion from upstream
    9.47   channel. Discharges adjusted using flow distribution.  Also applies
    9.47   to bridge sections.
C   9.47   CL = 7740
T1         CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3         LAS VEGAS WASH - LAKE MEAD BLVD TO LAS VEGAS BLVD  - 25-YEAR
J1                 2                  0.009                              1818.
J2      -1                -1                                                    15
QT      4.      6400     13000     24000     84000
NC                                    0.1       0.3
NH       6      .040      3800      .060      7800      .050      8941      .030      9014      .050
NH    9204      0.14     12020
X1    8.19        37      8941      9014
X3      10
GR1823.0       300   1817.0     1200   1816.0     2500   1820.0     3800   1818.0     4580
GR1819.0      5810   1816.0     7030   1320.0     7800   1820.0     8000   1820.0     8000
GR1819.2      8000   1819.6     8169   1819.4     8408   1820.1     8794   1820.5     8849
GR1821.5      8875   1820.3     8921   1822.6     8927   1823.9     8941   1812.5     8952
GR1810.6      8975   1810.6     8988   1813.2     9001   1814.1     9010   1823.9     9014
GR1820.9      9040   1823.5     9062   1826.7     9084   1826.3     9115   1820.8     9150
GR1819.5      9163   1821.5     9204   1322.0     9255   1822.0    10370   1823.0    10700
GR1824.0     11220   1824.0    12020
QT       4    6260
NH       5     .040      4430      .060      9006      .025      9094      .030      9540      0.14
NH612500
X1    8.27        26     9006.     9094.       350       300       330
X3      10                                                    1825.0    1825.0
X4       3   1821.0      8000    1823.0      8650    1823.0      8850
GR1824.0       600   1820.0     1300   1819.0     2400   1820.0     3200   1824.0     4000
GR1822.0      4430   1819.5     5200   1321.0     5850   1819.5     6770   1819.5     7400
GR 1824.     9000.     1824.     9006.   1814.0     9018.   1813.7     9050.   1814.0     9082.
GR 1824.     9094.     1824.     9100.   1824.5     9290   1824.5     9540   1824.5    10000
GR1824.0    10230   1823.5    10620   1823.5    10950   1824.0    11200   1825.0    11900
GR1826.0    12500
NC                                    0.3       0.5
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NH      5     .040     4430     .060     9006     .015     9095     .030     9540     0.14
NH  12500
X1  8.271       51     9017.    9095.       5        5        5
K3     10                                                      1825.0   1825.0
K4      3   1321.0     8000   1823.0     8650   1823.0     8850
BT     -4     9006   1824.0              9017   1824.1   1821.7     9025   1823.2   1821.7
BT             9095   1823.2   1821.7
GR1824.0        600   1820.0     1300   1819.0     2400   1820.0     3200   1824.0     4000
GR1822.0       4430   1819.5     5200   1821.0     5850   1819.5     6770   1819.5     7400
GR 1824.       3000.    1824.    9006.   1824.0     9017   1813.7   9017.0   1813.7     9025
GR1821.7    9028.3   1813.7   9028.3   1813.7   9034.3   1821.7   9034.3   1821.7   9037.6
GR1813.7    9037.6   1813.7   9043.6   1821.7   9043.6   1821.7   9047.2   1813.7   9047.2
GR1813.7    9057.2   1821.7   9057.2   1821.7     9060   1813.7     9060   1813.7     9070
GR1821.7      9070   1921.7     9073   1313.7     9073   1813.7     9083   1821.7     9083
GR1821.7    9086.6   1813.7   9086.6   1813.7   9095.0   1823.2     9095   1823.2     9095
GR 1824.      9096.    1824.    9100.   1824.5     9290   1824.5     9540   1824.5    10000
GR1824.0     10280   1823.5    10620   1823.5    10950   1824.0    11200   1825.0    11900
GR1826.0     12500
ET              6.1                               8940     9140
NC   .055      0.14     .015      0.1      0.3
X1   8.31       48.    9040.    9116.     235.     235.     235.
X2
K3     10
K4      1   1824.0     8280
BT     -5     8940   1824.0              9040   1824.1   1822.0     9046   1823.2   1822.0
BT             9116.0   1824.1   1822.0   9120   1824.0
GR1826.5        800   1822.0     1200   1822.0     2400   1823.0     3200   1823.0     3200
GR1824.0       4000   1823.8     5950   1823.5     6050   1821.0     6770   1822.0     7800
GR 1826.       3900.    1826.    8940   1824.1     9040   1814.0   9040.0   1814.0     9046
GR1822.0       9046   1822.0   9051.3   1814.0   9051.3   1814.0   9055.3   1822.0   9055.3
GR1822.0    9060.6   1814.0   9060.6   1814.0   9064.6   1822.0   9064.6   1822.0   9070.2
GR1814.0    9070.2   1814.0   9078.2   1822.0   9078.2   1822.0   9083.0   1814.0     9083
GR1814.0       9091   1822.0     9091   1822.0     9096   1814.0     9096   1814.0     9104
GR1822.0       9104   1822.0   9109.6   1814.0   9109.6   1814.0   9116.0   1824.0     9116
GR1824.0       9120.    1826.    9140.    1824.    9148.   1823.6     9270   1824.2     9580
GR1824.5       9770   1826.0    10130   1826.0    11780
QT      4      6400
ET              6.1                               8900     9270
NC   .055      0.14     .025      0.3      0.5
X1  8.311       23.    9014.    9140.       5.       5.       5.
K3     10
K4      1   1824.0     8280
GR1826.5        800   1822.0     1200   1822.0     2400   1823.0     3200   1823.0     3200
GR1824.0       4000   1823.8     5950   1823.5     6050   1821.0     6770   1822.0     7800
GR 1826.       3900.    1826.    8940   1824.1   9014.    1814.5   9034.    1814.    9075.
GR1814.5       9120.    1824.    9140.    1824.    9148.   1823.6     9270   1824.2     9580
GR1824.5       9770   1826.0    10130   1826.0    11780
NC                                0.1      0.3
NH      7     .040     2020     .060     3700     0.16     5380     .040     7000     0.16
NH   7863     .025     8094     0.16    11520
X1   8.61       39.    7863.    8094.    1570.    1370.    1560.
K3     10
K4      3   1830.5     2900   1830.0     7400   1832.0     7700
GR1832.0          0   1830.0      250   1829.0     2020   1829.0     3700   1829.0     5380
GR1831.0       5970   1827.0     6250   1827.0     6730   1830.0     6880   1825.1     7000
GR1833.1   007741   1833.1   007741   1833.1   007741   1833.1   007741   1833.1   007741
GR1832.7   007754   1830.2   007793   1830.2   007836   1832.8   007853   1832.6   007923
GR1829.9   007952   1822.7   007970   1818.9   008025   1820.1   008039   1822.1   008062
GR1830.3   008077   1832.3   008094   1832.3   008135   1832.4   008173   1832.0     8180
GR1832.0     8710   1832.0     9160   1832.0     9230   1832.0    10070   1832.4    10360
GR1834.9    10780   1836.0    10900   1836.0    11250   1838.0    11520
NH      4     .040     1700     0.16     7007     .025     7188     0.16    11360
X1   8.85       49    7007.    7188.    1370.    1200.    1250.
K3     10                                                      1837.0
K4      1   1836.0     4180
GR1840.0          0   1837.0      250   1837.0     1700   1837.0     2550   1840.0     3730
GR1837.0       4900   1833.3   005000   1834.2   005102   1833.9   005248   1834.6   005315
GR1833.9   005362   1834.0   005458   1834.2   005626   1834.0   005773   1833.5   005856
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GR1833.7  005977  1834.6  006004  1834.8  006111  1833.7  006220  1837.7    6395
GR1837.7  006554  1839.1  006837  1838.8  006858  1839.4  006879  1837.9  006900
GR1837.2  006953  1837.0  006981  1837.6  007007  1834.4  007013  1833.0  007025
GR1827.3  007031  1825.1  007044  1824.4  007064  1824.4  007099  1826.2  007119
GR1825.9  007122  1833.5  007134  1835.6  007142  1837.7  007163  1837.8  007188
GR1837.8    7250  1838.9    7420  1839.0    8170  1835.5    8550  1835.7    9570
GR1838.0   10080  1840.0   10450  1842.0   10870  1844     11360
QT          4     6330
VC                          0.3     0.5
VH          6     .040     4500    0.16    9100    .080    9910    .025    10070   0.16
VH      11770     0.12    14040
K1   8.90          35     9910.   10070.    170.    360.    230.
K3         10                                                1837.8  1838.0
K4          2  1340.0     2800  1836.5     6980
GR1843.0       2650  1837.5     3050  1837.5     4500  1837.5     5350  1841.0     6530
GR1839.0       7700  1837.0     7800  1836.0     7880  1836.0     8140  1835.9     8550
GR1835.2       8850  1836.5     9100  1837.6     9340  1837.5     9870  1837.8     9890
GR1837.8       9910  1826.0     9950  1825.2     9955  1825.2    10020  1826.0    10025
GR1838.0      10070  1838.0    10270  1839.1    10430  1838.0    10800  1837.     11000.
GR1837.0      11770  1838.0    11940  1838.0    12530  1838.0    12810  1840.0    12870
GR1840.0      13220  1842.0    13340  1843.0    13600  1844.0    13820  1846.0    14040
NH          6     .040     4500    0.16    9100    .080    9910    .015    10070   0.16
NH      11770     0.12    14040
K1  8.901         50     9950.   10019.      5.      5.      5.
K3         10                                                1837.8  1838.0
K4          3  1340.0     2800  1836.5     6980  1838.0    10070
BT         -7     9890  1837.8              9910  1838.1                9950  1838.5  1832.4
BT            9988  1838.7  1832.4    10019  1838.5  1832.4    10070  1838.2
BT           10270  1838.0
GR1843.0       2650  1837.5     3050  1837.5     4500  1837.5     5350  1841.0     6530
GR1839.0       7700  1837.0     7800  1836.0     7880  1836.0     8140  1835.9     8550
GR1835.2       8850  1836.5     9100  1837.6     9340  1837.5     9870  1837.8     9890
GR1837.8       9910  1837.8     9950  1825.2     9950  1825.2     9959  1832.4     9959
GR1832.4       9954  1825.2     9964  1825.2     9974  1832.4     9974  1832.4     9979
GR1825.2       9979  1825.2     9989  1832.4     9989  1832.4     9994  1825.2     9994
GR1825.2      10004  1832.4    10004  1832.4    10009  1825.2    10009  1825.2    10019
GR1838.0      10019  1838.0    10270  1839.1    10430  1838.0    10800  1837.     11000.
GR1837.0      11770  1838.0    11940  1838.0    12530  1838.0    12810  1840.0    12870
GR1840.0      13220  1842.0    13340  1843.0    13600  1844.0    13820  1846.0    14040
ET             6.1                                   9890    10430
VC                          0.1     0.3
VH          5     .040     4500    0.16    9100    .080    9910    .015    10070   0.16
VH      11770     0.12    14040
K1   8.91          50     9950.   10018.     70.     70.     70.
K2
K3         10                                                1838.1  1838.1
K4          3  1340.0     2800  1836.5     6980  1838.0    10070
BT         -7     9890  1837.8              9910  1838.1                9950  1838.5  1832.8
BT            9988  1838.7  1832.8    10018  1838.5  1832.8    10070  1838.2
BT           10270  1838.0
GR1843.0       2650  1837.5     3050  1837.5     4500  1837.5     5350  1841.0     6530
GR1839.0       7700  1837.0     7800  1836.0     7880  1836.0     8140  1835.9     8550
GR1835.2       8850  1836.5     9100  1837.6     9340  1837.5     9870  1837.8     9890
GR1837.8       9910  1837.8     9950  1825.6     9950  1825.6     9958  1832.8     9958
GR1832.8       9965  1825.6     9965  1825.6     9973  1832.8     9973  1832.8     9980
GR1825.6       9980  1825.6     9988  1832.8     9988  1832.8     9995  1825.6     9995
GR1825.6      10003  1832.8    10003  1832.8    10010  1825.6    10010  1825.6    10018
GR1838.0      10018  1838.0    10270  1839.1    10430  1838.0    10800  1837.     11000.
GR1837.0      11770  1838.0    11940  1838.0    12530  1838.0    12810  1840.0    12870
GR1840.0      13220  1842.0    13340  1843.0    13600  1844.0    13820  1846.0    14040
QT          4     5400
ET             6.1                                   9910    10900
VC                          0.3     0.5
VH          5     .040     4500    0.16    9100    .080    9910    .025    10070   0.16
VH      11770     0.12    14040
K1  8.911         35     9945.   10025.      5.      5.      5.
K3         10                                                1838.1  1838.1
K4          1  1836.5     6980
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GR1840.0     2400   1837.5     3050   1837.5     4500   1837.5     5350   1841.0     6550
GR1839.0     7700   1837.0     7900   1836.0     7880   1836.0     8140   1835.9     8550
GR1835.2     8850   1836.5     9100   1837.6     9340   1837.5     9870   1837.8     9890
GR1837.8     9910   1828.0     9945   1825.6     9960   1825.6    10015   1828.0    10025
GR1838.0    10070   1838.0    10270   1839.1    10430   1838.0    10800   1837.     11000.
GR1837.0    11770   1838.0    11940   1838.0    12530   1838.0    12810   1840.0    12870
GR1840.0    13220   1842.0    13340   1843.0    13600   1844.0    13820   1846.0    14040
NH      5     .040     2000     0.16     7219     .025     7349     0.16     8360     .11
NH  10960
K1   9.06       32.     7219.     7349.      650.      930.      820.
X3     10                                                  1842.3   1841.9
GR1845.0      500   1840.0     1400   1840.0     2000   1841.0     2800   1844.0     4450
GR1841.0     4800   1842.5     4950   1840.9     5000   1840.0     5350   1840.0     7110
GR1842.3  007136   1840.5  007219    1840.7  007238    1833.3  007255    1828.1  007301
GR1832.1  007328   1841.1  007349    1841.9  007361    1840.3  007375    1840.7  007406
GR1840.3  007451   1840.0     7670   1840.0     8360   1841.0     8750   1841.2     9140
GR1842.0     9180   1842.5     9450   1843.1     9900   1844.0    10200   1844.5    10510
GR1844.5    10700   1846.5    10960
NC                     0.1        0.3
NH      9     .040     4000     0.16     4850     .035     5750     0.13     6630     .030
NH   7212     .026     7447     .036     7900     .050     8700     0.16    10570
ET              6.1        6.1                   6990     7900
X1   9.30       39     7212     7447     1040     1070     1250
X3     10                                         7900   1846.0
X4      1   1850.0     1150
GR1852.0     1000   1845.0     1980   1844.0     3080   1845.0     4000   1846.0     4700
GR1848.0     4850   1846.8     4950   1846.0     5000   1846.0     5300   1845.7     5430
GR1846.2     5750   1843.5     6150   1847.0     6990   1847.0     7162   1847.1     7212
GR1837.8  007232   1835.2  007252    1834.4  007263    1837.8  007291    1842.1  007307
GR1841.4     7327   1840.4     7346   1840.9     7376   1841.2     7390   1840.2     7407
GR1843.8     7422   1844.7     7447   1843.4     7468   1845.5     7840   1846.0     7900
GR1845.5     7980   1845.5     8700   1845.5     9520   1846.0     9750   1848.0    10380
GR1850.0    10570   1850.0    10970   1850.6    11150   1852.0    11340
QT      4     3510
ET              6.1                                   4900     6120
NC                     0.3        0.5
NH      8.    .080     2650     .040     4000     .060     4700     .037     5370     .025
NH   5496     .037     6120     .055     7650     .080     9010
X1   9.41       43     5370.     5496.      340.      330.      570.
X4      3   1850.0     -300   1850.0     1800   1848.5     3410
GR1853.0      -800   1849.0     2200   1849.0     2650   1849.9     2760   1849.0     2960
GR1848.5     4000   1848.0     4150   1847.9     4250   1847.9     4700   1848.5     4900
GR1847.9  005000   1847.9  005065    1847.9  005118    1847.8  005184    1847.9  005242
GR1847.9  005254   1847.9  005306    1848.0  005352    1847.9  005370    1847.8  005389
GR1840.5  005417   1840.5  005461    1845.4  005480    1846.5  005496    1847.4  005535
GR1847.5  005559   1847.2  005579    1847.4  005601    1847.5  005631    1848.9  005676
GR1846.1  005735   1848.3  005762    1846.1  005790    1847.2  005815    1848.2  005850
GR1849.5     6120   1848.3     6200   1849.0     6600   1849.0     7400   1849.0     7650
GR1850.0     8000   1852.0     8650   1854.0     9010
ET              6.1                                   4900     6120
NH      8.    .080     2650     .040     4000     .060     4700     .037     5370     .015
NH   5496     .037     6120     .055     7650     .080     9010
X1  9.411       58     5391.     5459.       5.        5.        5
X4      1   1848.5     3410
BT    -15     2760   1849.9                3410   1849.0                4000   1848.9
BT            4250   1849.9                5065   1849.9                5184   1850.7
BT            5264   1851.3                5391   1851.4   1847.8       5459   1851.4   1847.8
BT            5559   1851.0                5760   1851.0                5950   1851.1
BT            6200   1850.1                7650   1850.1                8000   1850.0
GR1850.0     1800   1849.0     2200   1849.0     2650   1849.9     2750   1849.0     2960
GR1848.5     4000   1848.0     4150   1847.9     4250   1847.9     4700   1848.5     4900
GR1847.9  005000   1847.9  005065    1847.9  005118    1847.8  005184    1847.9  005242
GR1847.9  005254   1847.9  005306    1848.0  005352    1847.9  005370    1847.8  005391
GR1840.5     5391   1840.5     5401   1847.8     5401   1847.8     5404   1840.5     5404
GR1840.5     5415   1847.8     5415   1847.8     5418   1840.5     5418   1840.5     5429
GR1847.8     5429   1847.8     5434   1840.5     5434   1840.5     5445   1847.8     5445
GR1847.8     5448   1840.5     5448   1840.5     5459   1847.8     5459   1847.4     5535
GR1847.5  005559   1847.2  005579    1847.4  005601    1847.5  005631    1848.9  005676
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GR1846.1  005735  1848.3  005762  1846.1  005790  1847.2  005815  1848.2  005850
GR1849.5    6120  1848.3    6200  1349.0    6600  1849.0    7400  1849.0    7650
GR1850.0    8000  1852.0    8650  1854.0    9010
QT      4   6400
ET          6.1                           4470    5730
NC                          0.1     0.3
NH      5.   .090    2350   .035   4500.   .060   5000.   .015   5120.   .040
NH 8820.
K1   9.43      46    5020.   5087.    110.    110.    110.
K2
K3      10                                                1851.0  1851.0
K4       2  1850.0    5600  1850.0    5750
BT     -14    4400  1850.0          5000  1851.4          5020  1851.4  1849.1
BT            5087  1850.1  1849.1  5120  1851.0          5400  1851.8
BT            5500  1851.2          5600  1851.0          5750  1850.2
BT            6120  1850.0          7200  1850.1          7700  1850.6
BT            8290  1852.9          8820  1854.0
GR1850.0      1500  1849.0    1750  1849.0    2250  1849.0    2250  1849.0    2250
GR1850.0      2350  1850.0    2350  1350.0    2350  1849.5    2450  1849.5    3700
GR1849.5    4000.   1850.0  4400.    1350.  5000.   1849.1    5020  1841.8    5020
GR1841.8      5029  1849.1    5029  1849.1    5034  1841.8    5034  1841.8    5043
GR1849.1      5043  1849.1    5048  1841.8    5048  1841.8    5057  1849.1    5057
GR1849.1      5064  1841.8    5064  1841.8    5073  1849.1    5073  1849.1    5078
GR1841.8      5078  1841.8    5087  1849.1    5087  1849.1    5087  1850.0    5100
GR 1850.    5100.    1851.  5120.   1851.0    5400  1850.0    5500  1850.0    6120
GR1849.5      6200  1849.5    7200  1850.0    7700  1850.0    8050  1852.0    8290
GR1854.0      8820
ET          6.1                           4470    5730
NC                          0.3     0.5
NH      5.   .090    2350   .035   4500.   .060   5000.   .025   5100.   .040
NH 8820.
K1  9.431       26    5000.   5100.      5.      5.      5.
K3      10                                                1851.0  1851.0
GR1850.0      1500  1849.0    1750  1849.0    2250  1849.0    2250  1849.0    2250
GR1850.0      2350  1850.0    2350  1850.0    2350  1849.5    2450  1849.5    3700
GR1849.5    4000.   1850.0  4400.    1850.  5000.   1841.8  5040.   1841.8  5070.
GR 1850.    5100.    1851.  5120.   1851.0    5400  1850.0    5500  1850.0    6120
GR1849.5      6200  1849.5    7200  1850.0    7700  1850.0    8050  1852.0    8290
GR1854.0      8820
ET          6.1                           7280    8300
NH      6    .080    5000    .060   5575.   .035   7300.   .060   7655.   .027
NH 7845.     .060   11120
K1   9.47      88    7655    7845     185     185     185
K4       1  1842.3    7728
GR1852.0      4200  1851.0    4450  1850.0    4900  1850.0    4900  1850.0    4900
GR1851.6    005000  1851.4  005059  1850.7  005063  1850.9  005115  1850.4  005147
GR1850.9    005182  1851.0  005217  1850.4  005256  1850.8  005304  1849.7  005380
GR1850.1    005446  1850.4  005631  1850.4  005694  1850.1  005790  1849.9  005861
GR1849.9    005900  1849.6  005925  1849.3  005941  1849.7  005998  1849.9  006040
GR1849.9    006037  1849.2  006171  1849.2  006214  1848.9  006298  1849.2  006340
GR1849.5    006412  1849.5  006461  1849.6  006511  1849.2  006568  1848.4  006675
GR1850.3    006715  1849.7  006735  1850.4  006804  1850.4  006862  1849.6  006928
GR1849.9    006991  1849.9  007041  1849.9  007097  1850.4  007142  1851.2  007181
GR1850.7    007250  1850.1  007276  1850.3  007300  1850.7  007318  1851.2  007345
GR1851.0    007337  1851.4  007425  1851.4  007484  1851.8  007524  1850.8  007556
GR1850.7    007591  1851.2  007622  1852.0  007655  1851.3  007680  1844.5  007702
GR1842.3    007758  1844.6  007777  1843.8  007783  1850.4  007803  1850.7  007845
GR1850.4    007893  1850.3  007955  1850.4  007996  1850.3  008065  1850.1  008129
GR1849.3    008190  1850.1  008239  1849.7  008253  1849.2  008324  1850.0  008364
GR1851.4    008384  1849.7  008418  1849.9  008453  1849.9  008512  1850.8  008521
GR1848.3      9000  1848.3    9500  1848.7   10300  1850.0   10550  1850.0   10700
GR1852.0     11120  1854.0   11320  1854.8   11630
EJ


ER
EOF..
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1*************************************************
 *  LATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 •  RUN DATE  25-JAN-88 TIME   12:33:19          •
 *************************************************
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*****************************************
•  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
•  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X             X     X
X      X  X         X                   X     X
XXXXXXXX  XXXX      X           XXXXX    XXXXX
X      X  X         X
X      X  X         X     X             X
X      X  XXXXXXX   XXXXX               XXXXXXX
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 **********•*********•*********•*********•*********
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **********•*********•*********•*********•*********



 SPLIT FLOW BEING PERFORMED

 SF

 TN         CAREY AVENUE LOB BREAKOUT
 NS      6   8.911     9.06     8.27     .050    .0025
 NG      0  1837.8      200  1837.8      280  1838.0      420  1840.0      530  1842.0
 NG    810  1842.9
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 C
 T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
 T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
 T3       LAS VEGAS WASH - LAKE MEAD BLVD TO LAS VEGAS BLVD  - 25-YEAR

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        0.        2.        3.        0.  0.009000      0.00      0.0       0.  1818.000     0.000

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      -1.000     .00      -1.000     1.00      0.000     0.000     0.000     0.000     0.000    15.000
```

GT	4.000	6400.000	13000.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.140	3800.000	0.060	7800.000	0.050	8941.000	0.030	9014.000	0.050
NH	9204.000	0.140	12020.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE									
	CL = 8980									
X1	8.190	37.000	8941.500	9014.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1823.000	300.000	1817.000	1200.000	1816.000	2500.000	1820.000	3800.000	1818.000	4980.000
GR	1819.000	5810.000	1816.000	7030.000	1820.000	7800.000	1820.000	8000.000	1820.000	8000.000
GR	1819.200	8000.000	1819.600	8169.000	1819.400	8408.000	1820.100	8794.000	1820.500	8849.000
GR	1821.500	8875.000	1820.300	8921.000	1822.600	8927.000	1823.900	8941.000	1812.500	8952.000
GR	1810.600	8975.000	1813.500	8988.000	1813.200	9001.000	1814.100	9010.000	1823.900	9014.000
GR	1820.900	9040.000	1823.500	9062.000	1826.700	9084.000	1826.300	9115.000	1820.800	9150.000
GR	1819.500	9163.000	1821.500	9204.000	1822.000	9255.000	1822.000	10370.000	1823.000	10700.000
GR	1824.000	11221.000	1824.000	12020.000	0.000	0.000	0.000	0.000	0.000	0.000
GT	4.000	6260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.140	4430.000	0.060	9006.000	0.025	9094.000	0.030	9540.000	0.140
NH	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	LAKE MEAD BLVD BRIDGE									
	CL = 9050									
X1	8.270	26.000	9006.000	9094.000	250.000	300.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1819.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9050.000	1814.000	9082.000
GR	1824.000	9094.000	1824.000	9100.000	1824.500	9290.000	1824.500	9540.000	1824.500	10000.000
GR	1824.000	10280.000	1823.500	10620.000	1823.500	10950.000	1824.000	11200.000	1825.000	11900.000
GR	1826.000	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.140	4430.000	0.060	9006.000	0.015	9095.000	0.030	9540.000	0.140
NH	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.271	51.000	9017.000	9095.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
BT	-4.000	9006.000	1824.000	0.000	9017.000	1824.100	1821.700	9025.000	1823.200	1821.700
BT	0.000	9095.000	1823.200	1821.700	0.000	0.000	0.000	0.000	0.000	0.000

GR	1824.000	600.000	1820.000	1300.000	1819.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9017.000	1813.700	9025.000
GR	1821.700	9028.300	1813.700	9028.300	1813.700	9034.300	1821.700	9034.300	1821.700	9037.600
GR	1813.700	9037.600	1813.700	9043.600	1821.700	9043.600	1821.700	9047.200	1813.700	9047.200
GR	1813.700	9057.200	1821.700	9057.200	1821.700	9060.000	1813.700	9060.000	1813.700	9070.000
GR	1821.700	9070.000	1821.700	9073.000	1813.700	9073.000	1813.700	9083.000	1821.700	9083.000
GR	1821.700	9086.600	1813.700	9086.600	1813.700	9095.000	1823.200	9095.000	1823.200	9095.000
GR	1824.000	9096.000	1824.000	9100.000	1824.500	9290.000	1824.500	9540.000	1824.500	10000.000
GR	1824.000	10280.000	1823.500	10620.000	1823.500	10950.000	1824.000	11200.000	1825.000	11900.000
GR	1826.000	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8940.000	9140.000	0.000	0.000	0.000
NC	0.055	0.140	0.015	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CL = 9080									
X1	8.310	48.000	9040.000	9116.000	235.000	235.000	235.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-5.000	8940.000	1824.000	0.000	9040.000	1824.100	1822.000	9046.000	1823.200	1822.000
BT	0.000	9116.000	1824.100	1822.000	9120.000	1824.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9040.000	1814.000	9040.000	1814.000	9046.000

GR	1822.000	9046.000	1822.000	9051.300	1814.000	9051.300	1814.000	9055.300	1822.000	9055.300
GR	1822.000	9060.600	1814.000	9060.600	1814.000	9064.600	1822.000	9064.600	1822.000	9070.200
GR	1814.000	9070.200	1814.000	9078.200	1822.000	9078.200	1822.000	9083.000	1814.000	9083.000
GR	1814.000	9091.000	1822.000	9091.000	1822.000	9096.000	1814.000	9096.000	1814.000	9104.000
GR	1822.000	9104.000	1822.000	9109.600	1814.000	9109.600	1814.000	9116.000	1824.000	9116.000
GR	1824.000	9120.000	1826.000	9140.000	1824.000	9148.000	1823.600	9270.000	1824.200	9580.000
GR	1824.500	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
GT	4.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8900.000	9270.000	0.000	0.000	0.000
NC	0.055	0.140	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	EFFECTIVE FLOW WIDTH RESTRICTED TO RIDGE (LOB) AND ROAD (ROB) WITH ET CARD AND DISCHARGES ADJUSTED BASED ON FLOW DISTRIBUTION									
X1	8.311	23.000	9014.000	9140.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1826.500	830.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	1814.500	9034.000	1814.000	9075.000
GR	1814.500	9120.000	1824.000	9140.000	1824.000	9148.000	1823.600	9270.000	1824.200	9580.000
GR	1824.500	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.040	2023.000	0.060	3700.000	0.160	5380.000	0.040	7000.000	0.160
NH	7863.000	0.025	8094.000	0.160	11520.000	0.000	0.000	0.000	0.000	0.000

CL = 8010

X1	8.610	39.000	7863.000	8094.000	1570.000	1370.000	1560.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	3.000	1830.500	2900.000	1830.000	7400.000	1832.000	7700.000	0.000	0.000	0.000
GR	1832.000	0.000	1833.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.000	5970.000	1827.000	6250.000	1827.000	6730.000	1830.000	6880.000	1825.100	7000.000
GR	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000
GR	1832.700	7754.000	1830.200	7793.000	1830.200	7836.000	1832.800	7863.000	1832.600	7923.000
GR	1829.900	7952.000	1822.700	7970.000	1818.900	8025.000	1820.100	8039.000	1822.100	8062.000
GR	1830.300	8077.000	1832.300	8094.000	1832.300	8135.000	1832.400	8173.000	1832.000	8180.000
GR	1832.000	8710.000	1832.000	9160.000	1832.000	9230.000	1832.000	10070.000	1832.400	10360.000
GR	1834.000	10700.000	1836.000	10800.000	1836.000	11250.000	1838.000	11520.000	0.000	0.000
NH	4.000	0.040	1700.000	0.160	7007.000	0.025	7188.000	0.160	11360.000	0.000

CL = 7090

X1	8.850	49.000	7007.000	7188.000	1370.000	1200.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.000	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1640.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	1833.300	5000.000	1834.200	5102.000	1833.900	5248.000	1834.600	5315.000
GR	1833.900	5362.000	1834.000	5458.000	1834.200	5626.000	1834.000	5773.000	1833.500	5856.000
GR	1833.700	5977.000	1834.600	6104.000	1834.800	6111.000	1833.700	6220.000	1837.700	6395.000
GR	1837.700	6554.000	1838.100	6827.000	1838.800	6858.000	1839.400	6879.000	1837.900	6900.000
GR	1837.200	6953.000	1837.000	6981.000	1837.600	7007.000	1834.400	7013.000	1833.000	7025.000
GR	1827.300	7031.000	1825.100	7044.000	1824.400	7064.000	1824.400	7099.000	1826.200	7119.000
GR	1825.900	7122.000	1833.500	7134.000	1835.600	7142.000	1837.700	7163.000	1837.800	7188.000
GR	1837.800	7250.000	1838.000	7420.000	1838.000	8170.000	1835.500	8550.000	1835.700	9570.000
GR	1838.000	10080.000	1840.000	10450.000	1842.000	10870.000	1844.000	11360.000	0.000	0.000
GT	4.000	6330.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	4503.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	14040.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CAREY AVE BRIDGE
CL = 10000

X1	8.900	35.000	9910.000	10070.000	170.000	360.000	230.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1838.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000

GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1826.000	9950.000	1825.200	9955.000	1825.200	10020.000	1826.000	10025.000
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13220.000	1842.000	13340.000	1843.000	13600.000	1844.000	13820.000	1846.000	14040.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	14040.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.901	50.000	9950.000	10019.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.400
BT	0.000	9988.000	1838.700	1832.400	10019.000	1838.500	1832.400	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000
GR	1838.000	10019.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13220.000	1842.000	13340.000	1843.000	13600.000	1844.000	13820.000	1846.000	14040.000
ET	0.000	6.100	0.000	0.000	0.000	9890.000	10430.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	14040.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 10000									
X1	8.910	50.000	9950.000	10018.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.800
BT	0.000	9988.000	1838.700	1832.800	10018.000	1838.500	1832.800	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.600	9950.000	1825.600	9958.000	1832.800	9958.000
GR	1832.800	9965.000	1825.600	9965.000	1825.600	9973.000	1832.800	9973.000	1832.800	9980.000
GR	1825.600	9980.000	1825.600	9988.000	1832.800	9988.000	1832.800	9995.000	1825.600	9995.000
GR	1825.600	10003.000	1832.800	10003.000	1832.800	10010.000	1825.600	10010.000	1825.600	10018.000
GR	1838.000	10018.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13220.000	1842.000	13340.000	1843.000	13600.000	1844.000	13820.000	1846.000	14040.000
GT	4.000	6400.000	3.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9910.000	10500.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	14040.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SPLIT FLOW OPTION USED TO COMPUTE LEFT OVERBANK BREAKOUTS.									
	RIGHT OVERBANK EFFECTIVE FLOW WIDTH RESTRICTED TO 1:1 EXPANSION									
	AND DISCHARGES ADJUSTED USING FLOW DISTRIBUTION.									
X1	8.911	35.000	9945.000	10025.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	1.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	2800.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1828.000	9945.000	1825.600	9960.000	1825.600	10015.000	1828.000	10025.000

GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13220.000	1842.000	13340.000	1843.000	13600.000	1844.000	13820.000	1846.000	14040.000

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NH	5.000	0.040	2000.000	0.160	7219.000	0.025	7349.000	0.160	8360.000	0.110
NH	10960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 7310									
X1	9.000	32.000	7219.000	7349.000	650.000	830.000	820.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1842.300	1841.900	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2000.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	1840.900	5000.000	1840.000	5350.000	1840.000	7110.000
GR	1842.300	7186.000	1840.500	7219.000	1840.700	7238.000	1832.300	7255.000	1828.100	7301.000
GR	1832.100	7328.000	1841.100	7349.000	1841.900	7361.000	1840.300	7375.000	1840.700	7406.000
GR	1840.300	7451.000	1840.000	7670.000	1840.000	8360.000	1841.000	8750.000	1841.200	9140.000
GR	1842.000	9180.000	1842.500	9450.000	1843.100	9900.000	1844.000	10200.000	1844.500	10510.000
GR	1844.500	10700.000	1846.500	10960.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	4000.000	0.160	4850.000	0.035	5750.000	0.130	6630.000	0.030
NH	7212.000	0.026	7447.000	0.036	7900.000	0.050	8700.000	0.160	10570.000	0.000
ET	0.000	6.100	6.100	0.000	0.000	6990.000	7500.000	0.000	0.000	0.000
	CL = 7270									
X1	9.300	39.000	7212.000	7447.000	1040.000	1070.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	7900.000	1846.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	1000.000	1845.000	1880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1848.000	4850.000	1846.800	4950.000	1846.000	5000.000	1846.000	5300.000	1845.700	5430.000
GR	1846.200	5750.000	1843.500	6150.000	1847.000	6990.000	1847.000	7162.000	1847.100	7212.000
GR	1837.800	7232.000	1835.200	7252.000	1834.400	7263.000	1837.800	7291.000	1842.100	7307.000
GR	1841.400	7327.000	1840.400	7346.000	1840.900	7376.000	1841.200	7390.000	1840.200	7407.000
GR	1843.800	7422.000	1844.700	7447.000	1843.400	7468.000	1845.500	7840.000	1846.000	7900.000
GR	1845.500	7980.000	1845.500	8700.000	1845.500	9520.000	1846.000	9760.000	1848.000	10380.000
GR	1850.000	10570.000	1850.300	10970.000	1850.600	11150.000	1852.000	11340.000	0.000	0.000
GT	4.000	3510.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	4900.000	6120.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.025
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	9010.000	0.000	0.000	0.000
	LAS VEGAS BLVD BRIDGE									
	CL = 5430									
X1	9.410	43.000	5370.000	5496.000	840.000	330.000	570.000	0.000	0.000	0.000
X4	3.000	1850.000	-300.000	1850.000	1800.000	1848.500	3410.000	0.000	0.000	0.000
GR	1853.000	-800.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000
GR	1847.900	5264.000	1847.900	5306.000	1848.000	5352.000	1847.900	5370.000	1840.500	5389.000
GR	1840.500	5417.000	1840.500	5461.000	1845.400	5480.000	1846.500	5496.000	1847.400	5535.000
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1849.000	7650.000
GR	1850.000	8000.000	1852.000	8650.000	1854.000	9010.000	0.000	0.000	0.000	0.000

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ET	0.000	6.100	0.000	0.000	0.000	4900.000	6120.000	0.000	0.000	0.000
NH	8.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.015
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	9010.000	0.000	0.000	0.000
X1	9.411	58.000	5391.000	5459.000	5.000	5.000	5.000	0.000	0.000	0.000
X4	1.000	1848.500	3410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-15.000	2760.000	1849.900	0.000	3410.000	1849.900	0.000	4000.000	1848.900	0.000
BT	0.000	4250.000	1849.900	0.000	5065.000	1849.900	0.000	5184.000	1850.700	0.000

BT	0.000	5264.000	1851.300	0.000	5391.000	1851.400	1847.800	5459.000	1851.400	1847.800
BT	0.000	5559.000	1851.000	0.000	5760.000	1851.000	0.000	5950.000	1851.100	0.000
BT	0.000	6200.000	1850.100	0.000	7650.000	1850.100	0.000	8000.000	1850.000	0.000
GR	1850.000	1500.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000
GR	1847.900	5264.000	1847.900	5306.000	1848.000	5352.000	1847.900	5370.000	1847.800	5391.000
GR	1848.500	5391.000	1848.500	5401.000	1847.800	5401.000	1847.800	5404.000	1848.500	5404.000
GR	1848.500	5415.000	1847.800	5415.000	1847.800	5418.000	1848.500	5418.000	1848.500	5429.000
GR	1847.800	5429.000	1847.800	5434.000	1848.500	5434.000	1848.500	5445.000	1847.800	5445.000
GR	1847.800	5448.000	1848.500	5448.000	1848.500	5459.000	1847.800	5459.000	1847.400	5535.000
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1849.000	7650.000
GR	1850.000	8000.000	1852.000	8650.000	1854.000	9010.000	0.000	0.000	0.000	0.000
GT	4.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	4470.000	5730.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.090	2350.000	0.035	4500.000	0.060	5000.000	0.015	5120.000	0.040
NH	8820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CL = 5150

X1	9.430	46.000	5020.000	5087.000	110.000	110.000	110.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1851.000	1851.000	0.000
X4	2.000	1850.000	5600.000	1850.000	5750.000	0.000	0.000	0.000	0.000	0.000
BT	-14.000	4400.000	1850.000	0.000	5000.000	1851.400	0.000	5020.000	1851.400	1849.100
BT	0.000	5087.000	1850.100	1849.100	5120.000	1851.000	0.000	5400.000	1851.800	0.000
BT	0.000	5500.000	1851.200	0.000	5600.000	1851.000	0.000	5750.000	1850.200	0.000
BT	0.000	6120.000	1850.000	0.000	7200.000	1850.100	0.000	7700.000	1850.600	0.000
BT	0.000	8290.000	1852.900	0.000	8820.000	1854.000	0.000	0.000	0.000	0.000
GR	1850.000	1500.000	1849.000	1750.000	1849.000	2250.000	1849.000	2250.000	1849.000	2250.000
GR	1850.000	2350.000	1850.000	2350.000	1850.000	2350.000	1849.500	2450.000	1849.500	3700.000
GR	1849.500	4000.000	1850.000	4400.000	1850.000	5000.000	1849.100	5020.000	1841.800	5020.000
GR	1841.800	5029.000	1849.100	5029.000	1849.100	5034.000	1841.800	5034.000	1841.800	5043.000
GR	1849.100	5043.000	1849.100	5048.000	1841.800	5048.000	1841.800	5057.000	1849.100	5057.000
GR	1849.100	5064.000	1841.800	5064.000	1841.800	5073.000	1849.100	5073.000	1849.100	5078.000
GR	1841.800	5078.000	1841.800	5087.000	1849.100	5087.000	1849.100	5087.000	1850.000	5100.000
GR	1850.000	5100.000	1851.000	5120.000	1851.000	5400.000	1850.000	5500.000	1850.000	6120.000
GR	1849.500	6200.000	1849.500	7200.000	1850.000	7700.000	1850.000	8050.000	1852.000	8290.000
GR	1854.000	8820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	4470.000	5730.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.090	2350.000	0.035	4500.000	0.060	5000.000	0.025	5100.000	0.040
NH	8820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.431	26.000	5300.000	5100.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1851.000	1851.000	0.000
GR	1850.000	1500.000	1849.000	1750.000	1849.000	2250.000	1849.000	2250.000	1849.000	2250.000
GR	1850.000	2350.000	1850.000	2350.000	1850.000	2350.000	1849.500	2450.000	1849.500	3700.000
GR	1849.500	4000.000	1850.000	4400.000	1850.000	5000.000	1841.800	5040.000	1841.800	5070.000
GR	1850.000	5100.000	1851.000	5120.000	1851.000	5400.000	1850.000	5500.000	1850.000	6120.000
GR	1849.500	6200.000	1849.500	7200.000	1850.000	7700.000	1850.000	8050.000	1852.000	8290.000
GR	1854.000	8820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7280.000	8300.000	0.000	0.000	0.000
NH	6.000	0.080	5000.000	0.060	6675.000	0.035	7300.000	0.060	7655.000	0.027
NH	7845.000	0.060	11120.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

EFFECTIVE FLOW WIDTH RESTRICTED TO 1:1 EXPANSION FROM UPSTREAM CHANNEL. DISCHARGES ADJUSTED USING FLOW DISTRIBUTION. ALSO APPLIES TO BRIDGE SECTIONS.

CL = 7740

X1	9.476	88.000	7655.000	7845.000	185.000	185.000	185.000	0.000	0.000	0.000
X4	1.000	1842.300	7728.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	1852.000	4200.000	1851.000	4450.000	1850.000	4900.000	1850.000	4900.000	1850.000	4900.000
GR	1851.600	5000.000	1851.400	5059.000	1850.700	5063.000	1850.900	5115.000	1850.400	5147.000
GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.500	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7397.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8235.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1848.700	10300.000	1850.000	10550.000	1850.000	10700.000
GR	1852.000	11120.000	1854.000	11320.000	1854.800	11630.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	ASELK	EG	HV	HL	GLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHN= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 8.190
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1823.90 ELREA= 1823.90

START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	8.26	1818.86	1818.86	1818.00	1822.19	3.33	0.00	0.00	1823.90
6400.	0.	6400.	0.	0.	437.	0.	0.	0.	1823.90
0.00	0.00	14.65	0.00	0.000	0.030	0.000	0.000	1810.60	8945.87
0.007957	0.	0.	0.	0	8	0	0.00	66.08	9011.94

0
FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1818.86

STA= 8946. 9014.
PER Q= 100.
AREA= 436.8
VEL= 14.7

1490 NH CARD USED
*SECNO 8.270

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

LAKE MEAD BLVD BRIDGE
CL = 9050

8.27	8.30	1822.00	0.00	0.00	1823.70	1.70	1.34	0.16	1824.00
6260.	0.	6260.	0.	0.	598.	0.	4.	1.	1824.00
0.01	0.00	10.47	0.00	0.000	0.025	0.000	0.000	1813.70	9008.40
0.002444	350.	330.	300.	2	0	0	0.00	83.19	9091.60

0
FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1822.00

STA= 9008. 9094.
PER G= 100.
AREA= 598.1
VEL= 10.5

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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

8.27	8.19	1821.89	0.00	0.00	1823.84	1.95	0.02	0.13	1824.00
5385.	.	5385.	0.	.	480.	0.	4.	1.	1823.20
0.01	0.00	11.21	0.00	0.300	0.015	0.000	0.000	1813.70	9017.00
0.004871	5.	5.	5.	2	0	0	-14.09	75.01	9095.00

0
FLOW DISTRIBUTION FOR SECNO= 8.27 C&SEL= 1821.89

STA= 9017. 9095.
PER G= 100.
AREA= 480.4
VEL= 11.2

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

3470 ENCROACHMENT STATIONS= 3940.0 9140.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1824.10 ELREA= 1824.00

CL = 9080

8.31	8.40	1822.40	1821.75	1822.80	1825.97	3.57	1.65	0.49	1824.10
5385.	0.	5385.	0.	0.	355.	0.	6.	1.	1824.00
0.01	0.00	15.16	0.00	0.055	0.015	0.149	0.000	1814.00	9040.00
0.010946	235.	235.	235.	4	9	0	-30.63	76.00	9116.00

0
1
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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1822.40

STA= 9040. 9116.
PER Q= 100.0
AREA= 355.2
VEL= 15.2

CCHV= 0.300 CEHV= 0.500
*SECNO 8.311
3280 CROSS SECTION 8.31 EXTENDED 8.74 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8900.0 9270.0 TYPE= 1 TARGET= 370.000
EFFECTIVE FLOW WIDTH RESTRICTED TO RIDGE (LCE) AND ROAD (REB)
WITH ET CARD AND DISCHARGES ADJUSTED BASED ON FLOW DISTRIBUTION

8.31	12.75	1826.75	0.00	1825.80	1826.38	0.23	0.00	1.00	1824.10
5525.	74.	5340.	111.	155.	1373.	381.	6.	1.	1824.00
0.01	0.48	3.89	0.29	0.055	0.025	0.140	0.000	1814.00	8900.00
0.000185	5.	5.	5.	3	0	0	0.00	370.00	9270.00

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1826.75

STA= 8900. 8934. 9014. 9140. 9146. 9270.
PER Q= 0.2 1.2 96.6 0.1 1.9
AREA= 29.7 125.3 1373.2 21.9 359.1
VEL= 0.3 0.5 3.9 0.3 0.3

CCHV= 0.100 CEHV= 0.300
1491 NH CARD USED
*SECNO 8.610

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1832.80 ELREA= 1832.30

CL = 8010

8.61	7.79	1826.69	0.00	1825.70	1828.04	1.35	0.72	0.34	1832.80
5525.	0.	5525.	0.	0.	592.	0.	50.	9.	1832.30
0.66	0.00	9.33	0.00	0.055	0.025	0.140	0.000	1818.50	7960.03
0.002693	1570.	1560.	1370.	4	0	0	0.00	110.36	8070.39

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTR	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.61 CWSEL= 1826.69

STA= 7960. 8094.
PER Q= 100.0
AREA= 592.2
VEL= 9.3

1490 NH CARD USED
*SECNO 8.850

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.60 ELREA= 1837.00

CL = 7.90

8.85	6.80	1830.40	0.00	1830.03	1832.19	1.80	4.02	0.13	1837.60
5525.	0.	5525.	0.	0.	513.	0.	66.	12.	1837.80
0.09	0.00	10.76	0.00	0.055	0.026	0.140	0.000	1824.40	7027.74
0.003910	1370.	1250.	1200.	3	0	0	0.00	101.36	7129.10

FLOW DISTRIBUTION FOR SECNO= 8.85 CWSEL= 1830.40

STA= 7028. 7188.
PER Q= 100.0
AREA= 513.3
VEL= 10.8

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

CAREY AVE BRIDGE
CL = 1000.

8.90	6.66	1831.86	0.00	1831.18	1833.07	1.21	0.70	0.18	1837.80
5455.	0.	5455.	0.	0.	617.	0.	69.	13.	1838.00
0.10	0.00	8.84	0.00	0.055	0.029	0.140	0.000	1825.23	9930.16
0.002449	170.	230.	360.	3	0	0	0.00	116.78	10046.95

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	ARCE	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CCHAR	TCRWIC	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1831.86

STA= 9930. 10070.
PER Q= 100.
AREA= 617.2
VEL= 8.8

1490 NH CARD USED
*SECNO 8.901

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.112 EGC= 1836.129 WSEL= 1832.186

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.112 EGC= 1836.117 WSEL= 1832.303

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.40

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

8.90	7.20	1832.40	1832.40	1831.65	1836.11	3.71	0.02	1.25	1837.80

```
      5455.        0.      5455.        0.        0.      353.        0.       69.       13.   1838.00
       0.10       0.00      15.46      0.00      0.050     0.016     0.131     0.000  1825.20   9950.00
  0.000921         5.         5.         5.        20        21         0         0.00   49.00  10019.00
0

 FLOW DISTRIBUTION FOR SECNO=      8.90          CWSEL=   1832.40

 STA=    9950.   10019.
   PER Q=    100.
     AREA=   352.8
      VEL=    15.5

 CCHV=   0.100 CEHV=   0.300
1
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
     Q          GLOB       QCH        QROB       ALOB       ACH        ARCB       VOL        IBA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      ICPMIC      ENDST

 1490 NH CARD USED
 *SECNO 8.910

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=    9890.0   10431.0  TYPE=      1  TARGET=     540.000
           CL = 10000
      8.51      14.21   1839.81   1839.81   1832.80   1840.92      1.11      0.46      0.26   1837.80
      5455.      626.     3671.     1158.       98.      370.      619.       70.       13.   1838.00
       0.10       6.42      9.92      1.87     0.022     0.015     0.074     0.000  1825.60   9890.00
  0.000507         7.         7.         7.        20        10         0   -455.59   540.00  10430.00
0
 FLOW DISTRIBUTION FOR SECNO=      8.91          CWSEL=   1839.81

 STA=    9890.    9951.   10018.   10070.   10270.   10430.
   PER Q=     11.5     67.3     12.5      5.9      2.8
     AREA=    97.5    370.2     75.8    341.7    201.3
      VEL=     6.4      9.9      9.0      0.9      0.8

 CCHV=   0.300 CEHV=   0.500
 1490 NH CARD USED
 *SECNO 8.911

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS=    9910.0   10900.0  TYPE=      1  TARGET=     990.000
           SPLIT FLOW OPTION USED TO COMPUTE LEFT OVERBANK BREAKOUTS.
           RIGHT OVERBANK EFFECTIVE FLOW WIDTH RESTRICTED TO 1:1 EXPANSION
           AND DISCHARGES ADJUSTED USING FLOW DISTRIBUTION.
      8.91      15.51   1841.11      0.00   1837.39   1841.22      1.11      0.00      0.30   1828.00
      5525.      56.      3837.     1129.      288.     1211.     2684.       71.       14.   1828.00
       0.10       1.95      3.17     0.42     0.025     0.025     0.070     0.000  1825.60   9910.00
  0.000076         5.         5.         5.         2         0         0         0.00   990.00  10900.00
0
1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1841.11

STA=	9910.	9945.	10025.	10070.	10270.	10430.	10800.	10900.
PER Q=	10.1	69.4	13.6	2.0	1.1	2.6	1.1	
AREA=	287.5	1211.2	365.2	623.0	410.4	949.0	336.5	
VEL=	1.9	3.2	2.1	0.2	0.2	0.2	0.2	

1490 NH CARD USED
*SECNO 9.060

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1842.30 ELREA= 1841.90

CL = 7310

9.06	12.86	1840.96	0.00	1837.20	1841.70	0.73	0.17	0.31	1840.50
6400.	0.	6400.	0.	0.	931.	0.	119.	24.	1841.10
0.14	0.00	6.87	0.00	0.098	0.025	0.140	0.000	1828.10	7219.00
0.001004	650.	320.	830.	4	0	0	0.00	129.68	7348.68

FLOW DISTRIBUTION FOR SECNO= 9.06 CWSEL= 1840.96

STA=	7219.	7349.
PER Q=	100.0	
AREA=	931.3	
VEL=	6.9	

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.300

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 0.0 7900.0 TYPE= 1 TARGET= 7895.999

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1847.10 ELREA= 1844.70

CL = 7270

9.30	8.54	1842.94	0.00	1843.24	1844.25	1.31	2.38	0.17	1847.10
6400.	0.	6400.	0.	0.	697.	0.	142.	29.	1844.70
0.17	0.00	9.18	0.00	0.043	0.026	0.053	0.000	1824.40	7220.95
0.004888	1040.	1250.	1070.	3	3	3	0.00	157.45	7418.40

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.30 CWSEL= 1842.94

STA=	7221.	7447.
PER Q=	100.0	
AREA=	696.3	
VEL=	9.2	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.410

347 ENCROACHMENT STATIONS= 4900.0 6120.0 TYPE= 1 TARGET= 1220.000
LAS VEGAS BLVD BRIDGE
CL = 5430

9.41	5.08	1845.58	0.00	1845.26	1846.53	0.95	2.17	0.11	1847.90
3510.	.	3510.	0.	0.	445.	0.	149.	31.	1846.50
0.19	0.00	7.81	0.00	0.037	0.025	0.037	0.000	1840.50	5375.96
0.002592	840.	570.	330.	4	0	0	0.00	106.67	5482.62

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1845.58

STA= 5376. 5496.
PER Q= 100.0
AREA= 449.1
VEL= 7.8

1490 NH CARD USED
*SECNO 9.411

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 1848.90 MAX ELLC= 1847.80

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4900.0 6120.0 TYPE= 1 TARGET= 1220.000

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / ARCB / XNR / ICONT	HL / VOL / WTN / CORAR	CLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
9.41	5.06	1845.56	1845.56	1845.56	1848.12	2.56	0.02	0.81	1847.80
3510.	0.	3510.	0.	0.	273.	0.	149.	31.	1847.80
0.15	0.00	12.84	0.00	0.037	0.015	0.037	0.000	1840.50	5391.00
0.004665	5.	5.	5.	20	12	0	0.00	54.00	5459.00

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1845.56

STA= 5391. 5459.
PER Q= 100.0
AREA= 273.4
VEL= 12.8

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.430

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 1850.00 MAX ELLC= 1849.10

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4470.0 5730.0 TYPE= 1 TARGET= 1260.000
CL = 5.50

9.43	10.31	1852.11	1852.11	1852.11	1852.77	0.66	0.41	0.19	1849.10
6400.	1273.	3564.	1563.	719.	420.	602.	152.	32.	1849.10
0.20	1.77	8.49	2.59	0.058	0.015	0.034	0.000	1841.80	4470.00
0.003296	110.	110.	110.	23	13	0	-982.81	1260.00	5730.00

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1852.11

STA=	4470.	5000.	5020.	5087.	5100.	5120.	5400.	5600.	5730.
PER Q=	18.9	1.0	55.7	3.2	3.1	5.3	4.9	8.0	
AREA=	764.6	14.2	419.7	23.8	27.7	199.1	162.2	189.5	
VEL=	1.7	4.5	8.5	8.5	7.1	1.7	1.9	2.7	

CCHV= 0.300 CEHV= 0.500

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 9.431

3470 ENCROACHMENT STATIONS= 4470.0 5730.0 TYPE= 1 TARGET= 1260.000

9.43	10.96	1852.76	0.00	1852.76	1852.92	0.16	0.00	0.15	1850.00
6400.	1289.	3478.	1633.	1460.	809.	1396.	152.	33.	1850.00
0.25	0.88	4.30	1.17	0.061	0.028	0.040	0.000	1841.80	4470.00
0.000331	5.	5.	5.	3	0	0	0.00	1260.00	5730.00

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1852.76

STA=	4470.	5000.	5130.	5120.	5400.	5500.	5730.
PER Q=	20.1	54.3	0.8	7.6	4.1	13.1	
AREA=	1460.3	808.5	45.1	491.5	225.5	633.7	
VEL=	0.9	4.3	1.2	1.0	1.2	1.3	

1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 7280.0 8300.0 TYPE= 1 TARGET= 1020.000
EFFECTIVE FLOW WIDTH RESTRICTED TO 1:1 EXPANSION FROM UPSTREAM
CHANNEL. DISCHARGES ADJUSTED USING FLOW DISTRIBUTION. ALSO APPLIES
TO BRIDGE SECTIONS.
CL = 7740

9.47	10.52	1852.82	0.00	1852.82	1853.00	0.18	0.07	0.01	1852.00
6400.	532.	4538.	1330.	629.	1137.	1239.	167.	37.	1850.70
0.22	0.85	3.99	1.07	0.056	0.027	0.060	0.000	1842.30	7280.00
0.000492	185.	185.	185.	2	0	0	0.00	1020.00	8300.00

FLOW DISTRIBUTION FOR SECNO= 9.47 CWSEL= 1852.82

STA=	7280.	7387.	7591.	7655.	7845.	7955.	8065.	8190.	8253.	8300.
PER Q=	3.6	3.7	1.1	70.9	4.0	4.3	6.2	3.5	2.8	
AREA=	216.3	314.7	98.1	1137.0	261.8	271.4	357.7	193.6	154.3	
VEL=	1.0	0.7	0.7	4.0	1.0	1.0	1.1	1.2	1.2	

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IN CAREY AVENUE LOB BREAKOUT

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1226.2	3.01	3.31	2.57	810.0	476.2

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
875.09	3685.64	123.25	875.09	3685.64	123.25	21	1841.107	1840.964	8.911	9.060

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - LAKE ME

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
•	8.190	0.00	0.00	0.00	1810.60	6400.00	1818.86	1818.86	1822.19	79.57	14.65	436.83	717.46
	8.270	330.00	0.00	0.00	1813.70	6260.00	1822.00	0.00	1823.70	24.44	10.47	598.12	1266.31
	8.271	5.00	1823.20	1821.70	1813.70	5384.91	1821.89	0.00	1823.84	48.71	11.21	480.40	771.52
	8.310	235.00	1823.20	1822.00	1814.00	5384.91	1822.40	1821.75	1825.97	109.46	15.16	355.20	514.76
	8.311	5.00	0.00	0.00	1814.00	5524.91	1826.75	0.00	1826.98	1.85	3.89	1909.20	4059.05
	8.610	1560.00	0.00	0.00	1818.90	5524.91	1826.69	0.00	1828.04	26.93	9.33	592.18	1064.71
	8.850	1250.00	0.00	0.00	1824.40	5524.91	1830.40	0.00	1832.19	39.10	10.76	513.35	883.55
	8.900	230.00	0.00	0.00	1825.20	5454.91	1831.86	0.00	1833.07	24.49	8.84	617.18	1102.17
*	8.901	5.00	1837.80	1832.40	1825.20	5454.91	1832.40	1832.40	1836.11	92.01	15.46	352.80	568.67
*	8.910	70.00	1837.80	1832.80	1825.60	5454.91	1839.81	1839.81	1840.92	50.07	9.92	1086.57	770.95
	8.911	5.00	0.00	0.00	1825.60	5524.91	1841.11	0.00	1841.22	0.76	3.17	4182.81	6320.43
	9.060	820.00	0.00	0.00	1828.10	6400.00	1840.96	0.00	1841.70	10.04	6.87	931.34	2020.02
	9.300	1250.00	0.00	0.00	1834.40	6400.00	1842.94	0.00	1844.25	48.88	9.18	696.81	915.45
	9.410	570.00	0.00	0.00	1840.50	3510.00	1845.58	0.00	1846.53	25.92	7.81	449.14	689.36
*	9.411	5.00	1848.90	1847.80	1840.50	3510.00	1845.56	1845.56	1848.12	46.65	12.84	273.43	513.92
*	9.430	110.00	1850.00	1849.10	1841.80	6400.00	1852.11	1852.11	1852.77	32.96	8.49	1740.80	1114.72
	9.431	5.00	0.00	0.00	1841.80	6400.00	1852.76	0.00	1852.92	3.31	4.30	3664.76	3517.76

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
9.470	185.00	0.00	0.00	1842.30	6400.00	1852.82	0.00	1853.00	4.92	3.99	3004.77	2885.21

LAS VEGAS WASH - LAKE ME
SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	8.190	6400.00	1818.86	0.00	0.00	0.86	66.08	0.00
	8.270	6260.00	1822.00	0.00	3.14	0.00	83.19	330.00
	8.271	5384.91	1821.89	0.00	-0.11	0.00	75.01	5.00
	8.310	5384.91	1822.40	0.00	0.52	-0.40	76.00	235.00
	8.311	5524.91	1826.75	0.00	4.35	0.95	370.00	5.00
	8.610	5524.91	1826.69	0.00	-0.06	0.99	110.36	1560.00
	8.650	5524.91	1830.40	0.00	3.71	0.37	101.36	1250.00
	8.900	5454.91	1831.36	0.00	1.46	0.68	116.78	230.00
*	8.901	5454.91	1832.40	0.00	0.54	0.75	49.00	5.00
*	8.910	5454.91	1839.81	0.00	7.41	7.01	540.00	70.00
	8.911	5524.91	1841.11	0.00	1.30	3.72	990.00	5.00
	9.060	6400.00	1840.96	0.00	-0.14	3.76	129.68	520.00
	9.300	6400.00	1842.94	0.00	1.97	-0.31	197.45	1250.00
	9.410	3510.00	1845.58	0.00	2.64	0.32	106.67	570.00
*	9.411	3510.00	1845.56	0.00	-0.02	0.00	54.00	5.00
*	9.430	6400.00	1852.11	0.00	6.55	0.00	1260.00	110.00
	9.431	6400.00	1852.76	0.00	0.65	0.00	1260.00	5.00
	9.470	6400.00	1852.82	0.00	0.07	0.00	1020.00	185.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 8.190 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 8.901 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.901 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.901 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=     8.910  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     8.910  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.910  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.411  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.411  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.411  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.430  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.430  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.430  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

1
  25-JAN-88     12:40:51                                                    PAGE    1


 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************



EOF..
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     13
   9.47        SECNO=River Mileage (above Advanced Wastewater Treatment Plant)
   9.47        Centerline Station at 7740
   9.59        Centerline Station at 8172
   9.75        Centerline Station at 10000
   9.88        Centerline Station at 3935
  10.01        **** Cheyenne Avenue ****
  10.01        Single Cross Section Normal Bridge
  10.01        Centerline Station at 10300
  10.01        2* Debris Load
  10.01        Future modelers: if low flow prevails, may convert to 5-arch NB
  10.15        Centerline Station at 10000
  10.26        Centerline Station at 10000
  10.34        Centerline Station at 10000
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR
J1              2                                                  1852.20
J2       1            -1
J3     150
QT       2   24000    84000
NC  0.040    0.100    0.035      0.1      0.3
ET         6.1                            4940     8521
NH       6    .080     5000     .060     5575.     .035     7300.     .060     7655.     .027
NH  7845.     .060    11250
X1    9.47       87     7655     7845
X3      10
X4       1   1842.3     7728
GR1852.0      4200   1851.0     4450   1850.0     4900   1850.0     4900   1850.0     4900
GR1851.6   005000    1851.4  005059    1850.7  005063    1850.9  005115    1850.4  005147
GR1850.9   005132    1851.0  005217    1850.4  005256    1850.8  005304    1849.7  005380
GR1850.1   005446    1850.4  005631    1850.4  005694    1850.1  005790    1849.9  005861
GR1849.9   005900    1849.6  005925    1849.3  005941    1849.7  005988    1849.9  006040
GR1849.9   006087    1849.2  006171    1849.2  006214    1848.9  006298    1849.2  006340
GR1849.5   006412    1849.5  006461    1849.6  006511    1849.2  006568    1848.4  006675
GR1850.3   006715    1849.7  006735    1850.4  006804    1850.4  006862    1849.6  006928
GR1849.9   006991    1849.9  007041    1849.9  007097    1850.4  007142    1851.2  007181
GR1850.7   007250    1850.1  007276    1850.3  007300    1850.7  007318    1851.2  007345
GR1851.0   007387    1851.4  007425    1851.4  007484    1851.8  007524    1850.8  007556
GR1850.7   007591    1851.2  007622    1852.0  007655    1851.3  007680    1844.5  007702
GR1842.3   007758    1844.6  007777    1843.8  007783    1850.4  007803    1850.7  007845
GR1850.4   007893    1850.3  007955    1850.4  007996    1850.3  008065    1850.1  008129
GR1849.3   008190    1850.1  008239    1849.7  008253    1849.2  008324    1850.0  008364
GR1851.4   008384    1849.7  008418    1849.9  008453    1849.9  008512    1850.8  008521
GR1848.3      9000   1848.3     9500   1849.2    10200   1850.0    10350   1852.0    10700
GR1854.0     11030   1856.0    11250
QT       2   23000    82000
NH       5    0.04     6215      0.13     7580      0.04     8108     0.035     8229      0.10
NH    9665
ET         7.1                                                  8291
X1    9.59       56     8108.     8229.      640       690       670
X2                                                                          15
GR1856.0      4780   1856.0     5140   1854.0     5400   1852.1     5585   1852.3     6215
GR1854.0      6270   1854.0     6385   1852.9     6465   1854.0     6510   1854.0     6845
GR1852.5      6915   1854.0     6995   1854.0     7580   1853.5     7705   1854.0     7740
GR1854.0   007835    1854.6  008009    1854.6  008078    1854.1  008108    1853.9  008119
GR1844.8   008145    1843.7  008155    1842.7  008168    1842.0  008172    1842.8  008178
GR1842.7   008187    1843.8  008200    1853.6  008229    1853.4  008260    1855.7  008291
GR1854.9   008307    1854.6  008363    1854.4  008403    1854.6  008448    1855.2  008469
GR1854.8   008505    1854.6  008538    1854.8  008555    1854.8  008588    1853.8  008714
GR1854.4   008739    1854.3  008826    1853.4  008867    1855.4  008899    1857.6  008925
GR1858.1   008950    1856.6  009015    1856.6  009037    1856.6  009061    1856.6  009072
GR1858.0      9345   1856.0     9425   1855.0     9540   1856.0     9565   1858.0     9615
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GR1860.0    9665
NH      6   0.04    8785    0.13    9540    0.035   9615    0.13    9940    0.035
NH  10115   0.13   11065
ET          7.1                                             10135
X1   9.75     41    9975   10025     810     890     810
GR1864.0    6460 1862.0     6625 1860.0     6695 1858.0     6960 1859.5     7600
GR1858.0    8070 1856.0     8120 1856.0     8215 1858.0     8275 1858.0     8785
GR1858.0    9355 1856.8     9415 1858.0     9440 1858.8     9505 1858.0     9540
GR1852.0    9562 1849.6     9575 1852.0     9587 1860.0     9615 1860.0     9745
GR1859.0    9805 1860.0     9830 1860.6     9900 1860.0     9940 1850.0     9975
GR1846.0   10000 1850.0    10025 1858.0    10050 1860.0    10115 1860.3    10135
GR1860.0   10155 1855.3    10200 1858.0    10365 1860.0    10395 1862.0    10520
GR1860.0   10780 1858.0    10815 1858.0    10945 1860.0    11040 1862.0    11050
GR1864.0   11065
NH      8   0.04    2572    0.13    3143    0.035   3232    0.13    3860    0.035
NH   3999   0.13    4420    0.05    4910    0.13    5275
X1   9.88     89    3860.   3999.    580.    680.    680.
X3                                  3999    1864.7
GR1883.4 000668 1870.6 000713 1863.3 000746 1863.0 000816 1862.5 000851
GR1862.8 000908 1863.3 000952 1863.2 000981 1863.2 001017 1863.4 001050
GR1862.8 001096 1862.6 001125 1862.1 001160 1862.9 001234 1863.7 001302
GR1863.4 001385 1863.8 001461 1861.9 001533 1861.1 001607 1861.5 001697
GR1861.5 001773 1862.6 001858 1862.8 001933 1862.5 002021 1863.2 002088
GR1861.9 002185 1862.8 002245 1862.9 002295 1863.3 002322 1863.3 002379
GR1863.4 002451 1862.8 002523 1861.2 002564 1862.7 002572 1862.4 002604
GR1862.3 002655 1862.7 002710 1862.1 002745 1861.2 002797 1861.5 002846
GR1864.0 002879 1862.4 002947 1860.0 002978 1860.2 003004 1859.9 003027
GR1860.7 003045 1862.4 003120 1862.0 003143 1856.5 003155 1852.8 003164
GR1852.2 003170 1852.3 003175 1863.6 003194 1863.9 003232 1863.9 003277
GR1862.3 003305 1862.2 003344 1863.9 003423 1863.9 003491 1862.7 003557
GR1862.2 003574 1862.2 003616 1861.7 003666 1861.6 003704 1861.6 003731
GR1861.2 003744 1862.9 003784 1863.4 003831 1862.6 003860 1859.7 003886
GR1851.0 003892 1849.2 003910 1847.3 003935 1852.5 003958 1861.9 003976
GR1864.7 003999 1864.0 004029 1863.1 004086 1861.4 004108 1861.7 004127
GR1860.9 004144 1863.9 004177 1866.2 004263 1866.0    4360 1864.4    4420
GR1866.0    4530 1867.2    4910 1868.0    5020 1870.0    5275
NC                  0.3     0.5
NH      9   0.037   5615    0.13    7040    0.037   8560    0.035   8660    0.040
NH   9520   0.13    9775    0.035  10064    0.040  10295    0.13   11145
X1  10.01     65    9944   10064     605     795     735
BT      4   9944 1868.9 1868.9 9958.2 1868.8 1866.8 10031.7 1868.8 1866.8
BT  10064 1868.9 1868.9
GR1878.0    5330 1876.0     5505 1876.0     5615 1876.0     5685 1874.0     5795
GR1872.0    6155 1870.0     6445 1868.0     6775 1866.0     6860 1865.8     6900
GR1866.0    6950 1867.2     6995 1866.0     7040 1866.0     7085 1868.0     7120
GR1869.1    7150 1868.0     7165 1866.0     7175 1864.0     7195 1864.0     7225
GR1866.0    7250 1868.0     7260 1870.0     7600 1870.0     7925 1868.0     8220
GR1867.6    8560 1860.0     8570 1858.0     8600 1858.1     8610 1868.0     8660
GR1869.8    8750 1868.0     9105 1867.5     9350 1868.0     9520 1868.0     9775
GR1867.5    9850 1868.9     9944 1866.8 9968.2 1859.6 9968.3 1859.6 9975.7
GR1866.8 9975.8 1866.8 9982.2 1859.6 9982.3 1859.6 9989.7 1866.8 9989.8
GR1866.8 9996.0 1859.6 9996.1 1859.6 10003.7 1866.8 10003.8 1866.8 10010.2
GR1859.6 10010.3 1859.6 10017.6 1866.8 10017.7 1866.8 10024.1 1859.6 10024.2
GR1859.6 10031.6 1866.8 10031.7 1868.9 10064 1870.0 10295 1870.0 10575
GR1872.0 10605 1874.0 10625 1874.0 10965 1876.0 11135 1878.0 11145
NH      5   0.037   8670    0.10    9465    0.040   9940    0.035  10050    0.040
NH  10590
X1  10.15     49    9940   10050     845     535     690
GR1878.0    6160 1876.0     6400 1874.0     6420 1874.0     6610 1872.0     6705
GR1870.0    6900 1868.0     7000 1868.0     7360 1870.0     7480 1872.0     7610
GR1871.7    7910 1870.0     8075 1850.0     8100 1860.0     8110 1870.0     8145
GR1872.0    8165 1872.0     8240 1874.0     8460 1874.0     8570 1872.0     8605
GR1874.0    8670 1874.2     8860 1874.0     9015 1872.2     9085 1874.0     9135
GR1874.0    9325 1872.0     9360 1872.0     9465 1874.0     9530 1874.3     9605
GR1874.0    9695 1872.0     9810 1870.0     9820 1870.0     9835 1872.0     9850
GR1874.0    9940 1872.0     9960 1864.0     9990 1864.0    10005 1866.0    10015
GR1872.0   10040 1874.0    10050 1876.0    10160 1876.0    10185 1874.0    10215
GR1874.0   10295 1876.0    10340 1876.0    10530 1878.0    10590
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NC 0.042    0.037    0.035      0.1       0.3
ET              7.1                                  7275
K1 10.26         58      9965    10380       585       540       585
GR1884.0       6005   1882.0     6345  1880.0     6475  1878.0     6540  1876.0     6580
GR1874.0       6650   1872.3     6760  1872.0     6865  1872.0     6915  1872.4     7095
GR1872.0       7230   1872.0     7255  1878.0     7275  1876.3     7345  1876.0     7430
GR1876.0       7530   1870.0     7550  1868.0     7565  1870.0     7580  1876.0     7615
GR1874.0       7745   1872.0     7755  1872.0     7785  1874.0     7795  1876.0     7910
GR1877.8       7865   1876.0     8020  1876.0     8055  1878.0     8130  1878.0     8265
GR1879.8       8550   1878.0     8870  1876.0     8880  1878.0     8895  1878.0     8985
GR1879.5       9050   1878.0     9240  1876.4     9260  1878.0     9270  1878.0     9540
GR1880.0       9550   1880.0     9650  1879.0     9725  1876.8     9865  1876.0     9965
GR1868.0       9995   1867.7    10000  1868.0    10005  1870.0    10015  1870.0    10060
GR1876.0      10080   1878.0    10135  1878.0    10330  1880.0    10445  1882.0    10550
GR1884.0      10640   1884.0    10900  1886.0    10995
NH      5      0.04      6660      0.10      8790   0.042      9965   0.035     10055   0.037
NH 10835
ET              7.1       9.1                                  7900                6505
K1 10.34         53      9965    10055       450       420       450
K2                                                                                    15
GR1888.0       6015   1886.0     6025  1884.0     6075  1882.0     6295  1880.0     6315
GR1878.9       6420   1880.0     6480  1883.0     6505  1880.0     6515  1876.0     6535
GR1876.0       6545   1882.0     6560  1884.0     6660  1886.0     6925  1884.0     7025
GR1884.0       7110   1886.0     7210  1886.0     7320  1884.0     7380  1884.0     7445
GR1882.0       7460   1881.3     7480  1882.0     7505  1884.0     7670  1882.0     7685
GR1882.0       7775   1884.0     7805  1884.2     7900  1884.0     8035  1882.7     8100
GR1884.0       8170   1884.3     8215  1884.0     8270  1882.0     8390  1881.6     8450
GR1882.0       8510   1882.0     8600  1882.0     8790  1881.6     8875  1882.0     8975
GR1882.0       9185   1881.6     9635  1882.0     9775  1882.0     9965  1872.0     9995
GR1872.0      10030   1880.0    10055  1882.0    10190  1882.0    10310  1884.0    10350
GR1884.8      10675   1886.0    10810  1888.0    10835
EJ
T1          CORFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR
J1                3                                                        1853.37
J2     15                -1

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GR1854.8  008505  1854.6  008538  1854.3  008555  1854.8  008588  1853.8  008714
GR1854.4  008739  1854.3  008826  1853.4  008867  1855.4  008899  1857.6  008925
GR1858.1  008950  1856.6  009015  1856.6  009037  1856.6  009061  1856.6  009072
GR1858.0    9345  1856.0    9425  1855.0    9540  1856.0    9565  1858.0    9615
GR1860.0    9665
QT      1   5400
NH      6    0.04    8785    0.13    9540   0.035    9615    0.13    9940   0.035
NH  10115    0.13   11065
XI   9.75      41    9975   10025     810     890     810
X3                   9900  1860.6   10135  1860.3
GR1864.0    6460  1862.0    6625  1860.0    6695  1858.0    6860  1859.5    7600
GR1858.0    8070  1856.0    8120  1856.0    8215  1858.0    8275  1858.0    8785
GR1858.0    9355  1856.8    9415  1858.0    9440  1858.8    9505  1858.0    9540
GR1852.0    9562  1849.6    9575  1852.0    9587  1860.0    9615  1860.0    9745
GR1859.0    9805  1860.0    9830  1860.6    9900  1860.0    9940  1850.0    9975
GR1846.0   10000  1850.0   10025  1858.0   10050  1860.0   10115  1860.3   10135
GR1860.0   10155  1855.3   10200  1858.0   10365  1860.0   10395  1862.0   10520
GR1860.0   10780  1858.0   10815  1858.0   10945  1860.0   11040  1862.0   11050
GR1864.0   11065
NH      8    0.04    2572    0.13    3143   0.035    3232    0.13    3860   0.035
NH   3999    0.13    4420    0.05    4910    0.13    5275
XI   9.88      89    3860.   3999.    680.    680.    680.
X3                   3831  1863.4    3999  1864.7
GR1883.4  000668  1870.6  000713  1863.0  000746  1863.0  000816  1862.5  000851
GR1862.8  000908  1863.3  000952  1863.2  000981  1863.2  001017  1863.4  001050
GR1862.8  001096  1862.6  001125  1862.1  001160  1862.9  001234  1863.7  001302
GR1863.4  001385  1863.8  001461  1851.9  001533  1861.1  001607  1861.5  001697
GR1861.5  001773  1862.6  001858  1862.8  001933  1862.5  002021  1863.2  002088
GR1861.9  002185  1862.8  002245  1862.9  002295  1863.3  002322  1863.3  002379
GR1863.4  002451  1862.8  002523  1861.2  002564  1862.7  002572  1862.4  002604
GR1862.3  002655  1862.7  002710  1852.1  002745  1861.2  002797  1861.5  002846
GR1864.0  002879  1862.4  002947  1860.0  002978  1860.2  003004  1859.9  003027
GR1860.7  003045  1862.4  003120  1862.0  003143  1856.5  003155  1852.8  003164
GR1852.2  003170  1852.3  003175  1863.6  003194  1863.9  003232  1863.9  003277
GR1862.3  003305  1862.2  003344  1863.9  003423  1863.9  003491  1862.7  003557
GR1862.2  003574  1862.2  003616  1851.7  003666  1861.6  003704  1861.6  003731
GR1861.2  003744  1862.9  003784  1863.4  003831  1862.6  003860  1859.7  003886
GR1851.0  003892  1849.2  003910  1847.3  003935  1852.5  003958  1861.9  003976
GR1864.7  003999  1864.0  004029  1863.1  004086  1861.4  004108  1861.7  004127
GR1860.9  004144  1863.9  004177  1856.2  004263  1866.0    4360  1864.4    4420
GR1866.0    4530  1867.2    4910  1868.0    5020  1870.0    5275
NC                   0.3     0.5
NH      9   0.037    5615    0.13    7040   0.037    8560   0.035    8660   0.040
NH   9520    0.13    9775   0.035   10064   0.040   10295    0.13   11145
ET      7.1                                  9944   10150
X1  10.01      65    9944   10064     605     795     735
BT      4    9944  1868.9  1868.9  9958.2  1868.8  1866.8 10031.7  1868.8  1866.8
BT  10064  1868.9  1868.9
GR1878.0    5330  1876.0    5505  1876.0    5615  1876.0    5685  1874.0    5795
GR1872.0    6155  1870.0    6445  1868.0    6775  1866.0    6860  1865.8    6900
GR1866.0    6950  1867.2    6995  1856.0    7040  1866.0    7085  1868.0    7120
GR1869.1    7150  1868.0    7165  1856.0    7175  1864.0    7195  1864.0    7225
GR1866.0    7250  1868.0    7260  1870.0    7600  1870.0    7925  1868.0    8220
GR1867.6    8560  1860.0    8570  1858.0    8600  1858.1    8610  1868.0    8660
GR1869.8    8750  1868.0    9105  1867.5    9350  1868.0    9520  1868.0    9775
GR1867.5    9850  1868.9    9944  1866.8  9968.2  1859.6  9968.3  1859.6  9975.7
GR1866.8  9975.8  1866.8  9982.2  1859.6  9982.3  1859.6  9989.7  1866.8  9989.8
GR1866.8  9996.0  1859.6  9996.1  1859.6 10003.7  1866.8 10003.8  1866.8 10010.2
GR1859.6 10010.3  1859.6 10017.6  1866.8 10017.7  1866.8 10024.1  1859.6 10024.2
GR1859.6 10031.6  1866.8 10031.7  1868.3    10064 1870.0    10295 1870.0    10575
GR1872.0   10605  1874.0   10625  1874.0   10965  1876.0   11135  1878.0   11145
NH      5   0.037    8670    0.10    9465   0.040    9940   0.035   10050   0.040
NH  10590
QT      1    6200
ET      7.1                                  9685   10160
X1  10.15      49    9940   10050     845     535     690
GR1878.0    6160  1876.0    6400  1874.0    6420  1874.0    6610  1872.0    6705
GR1870.0    6900  1868.0    7000  1858.0    7360  1870.0    7480  1872.0    7610
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GR1871.7     7410  1870.0     9975  1850.0     8100  1860.0     8110  1870.0     8145
GR1872.0     8165  1872.0     8240  1874.0     8460  1874.0     8570  1872.0     8605
GR1874.0     8670  1874.2     8960  1874.0     9015  1872.2     9085  1874.0     9135
GR1874.0     9325  1872.0     9360  1872.0     9465  1874.0     9530  1874.3     9605
GR1874.0     9695  1872.0     9810  1870.0     9820  1870.0     9835  1872.0     9850
GR1874.0     9940  1872.0     9960  1864.0     9990  1864.3    10095  1866.0    10015
GR1872.0    10040  1874.0    10050  1876.0    10160  1876.0    10185  1874.0    10215
GR1874.0    10295  1876.0    10340  1876.0    10530  1878.0    10590
NC 0.042    0.037   0.035      0.1        0.3
QT      1    5300
ET             7.1                                  9560
K1 10.26         58     9965    10080      585       540       585
GR1884.0     6015  1882.0     6345  1880.0     6475  1878.0     6540  1876.0     6580
GR1874.0     6660  1872.3     6760  1872.0     6865  1872.0     6915  1872.4     7095
GR1872.0     7230  1872.0     7255  1878.0     7275  1876.3     7345  1876.0     7430
GR1876.0     7530  1870.0     7550  1868.0     7565  1870.0     7580  1876.0     7615
GR1874.0     7745  1872.0     7755  1872.0     7785  1874.0     7795  1876.0     7810
GR1877.8     7865  1876.0     8020  1876.0     8055  1878.0     8130  1878.0     8265
GR1879.8     8550  1878.0     8870  1876.0     8880  1878.0     8835  1878.0     8985
GR1879.5     9050  1878.0     9240  1876.4     9260  1878.0     9270  1878.0     9540
GR1880.0     9560  1880.0     9660  1878.0     9725  1876.8     9865  1876.0     9965
GR1868.0     9995  1867.7    10000  1858.0    10005  1870.0    10015  1870.0    10060
GR1876.0    10080  1878.0    10135  1878.0    10330  1880.0    10445  1882.0    10550
GR1884.0    10640  1884.0    10900  1886.0    10995
NH      5    0.04     6660      0.10     8790   0.042      9965   0.035     10055   0.037
NH 10835
ET             7.1                                  9965
K1 10.34         53     9965    10055      450       420       450
K2                                                                              15
GR1888.0     6015  1886.0     6025  1884.0     6075  1882.0     6295  1880.0     6315
GR1878.9     6420  1880.0     6480  1883.0     6505  1880.0     6515  1876.0     6535
GR1876.0     6545  1882.0     6560  1884.0     6660  1886.0     6925  1884.0     7025
GR1884.0     7110  1886.0     7210  1886.0     7320  1884.0     7380  1884.0     7445
GR1882.0     7460  1881.3     7480  1882.0     7505  1884.0     7670  1882.0     7685
GR1882.0     7775  1884.0     7805  1884.2     7900  1884.0     8035  1882.7     8100
GR1884.0     8170  1884.3     8215  1884.0     8270  1882.0     8390  1881.6     8450
GR1882.0     8500  1882.0     8600  1882.0     8790  1881.6     8875  1882.0     8975
GR1882.0     9135  1881.6     9635  1882.0     9775  1882.0     9965  1872.0     9995
GR1872.0    10030  1880.0    10055  1882.0    10190  1882.0    10310  1884.0    10350
GR1884.8    10675  1886.0    10810  1888.0    10835
EJ


ER
EOF..
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110

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  20-SEP-88 TIME   14:53:05          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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1
20-SEP-88 14:53:05


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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1        CORECO/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.000000      0.00      0.0       0.  1851.750     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      1.000  6400.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.040     0.100     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.000     6.100     0.000     0.000     0.000  7280.000  8300.000     0.000     0.000     0.000
NH      6.000     0.080  5000.000     0.060  6675.000     0.035  7300.000     0.060  7655.000     0.027
NH   7845.000     0.060 11250.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above Advanced Wastewater Treatment Plant)
                Centerline Station at 7740
X1      9.470    87.000  7655.000  7845.000     0.000     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
X4      1.000  1842.300  7728.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1852.000  4200.000  1851.000  4450.000  1859.000  4900.000  1850.000  4900.000  1850.000  4900.000
GR   1851.600  5000.000  1851.400  5059.000  1850.700  5063.000  1850.900  5115.000  1850.400  5147.000
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GR	1853.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1949.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7759.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1956.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.000	6200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6215.000	0.130	7580.000	0.040	8106.000	0.035	8229.000	0.100
NH	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8078.000	8291.000	0.000	0.000
		Centerline Station at 8172								
X1	9.590	56.000	9108.000	8229.000	640.000	690.000	670.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1856.000	4780.000	1956.000	5140.000	1854.000	5400.000	1852.100	5585.000	1852.300	6215.000
GR	1854.000	6270.000	1954.000	6385.000	1852.900	6465.000	1854.000	6510.000	1854.000	6845.000
GR	1852.500	6915.000	1854.000	6995.000	1854.000	7590.000	1853.500	7705.000	1854.000	7740.000
GR	1854.000	7835.000	1854.600	8009.000	1854.600	8078.000	1854.100	8108.000	1853.900	8119.000
GR	1844.300	8145.000	1843.700	8155.000	1842.700	8168.000	1842.000	8172.000	1842.800	8178.000
GR	1842.700	8187.000	1843.800	8200.000	1853.600	8229.000	1853.400	8260.000	1855.700	8291.000
GR	1854.900	8307.000	1854.600	8363.000	1854.400	8403.000	1854.600	8448.000	1855.200	8469.000
GR	1854.300	8505.000	1854.600	8538.000	1854.800	8555.000	1854.200	8588.000	1853.800	8714.000
GR	1854.400	8739.000	1854.300	8826.000	1853.400	8867.000	1855.400	8899.000	1857.600	8925.000
GR	1858.100	8950.000	1856.600	9015.000	1856.600	9037.000	1856.600	9061.000	1856.600	9072.000
GR	1858.000	9345.000	1856.000	9425.000	1855.000	9540.000	1856.000	9565.000	1858.000	9615.000
GR	1860.000	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	5400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	8785.000	0.130	9540.000	0.035	9615.000	0.130	9940.000	0.035
NH	10115.000	0.130	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
		Reduction in Q25 flow by 800 cfs due to split flow at x10.01								
		through 10.15 (flow returns at x9.59)								
X1	9.750	41.000	9975.000	10025.000	810.000	890.000	810.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9900.000	1860.600	10135.000	1860.300	0.000	0.000	0.000
GR	1864.000	6460.000	1862.000	6625.000	1860.000	6695.000	1858.000	6860.000	1859.500	7600.000
GR	1858.000	8070.000	1856.000	8120.000	1856.000	8215.000	1858.000	8275.000	1858.000	8785.000
GR	1858.000	9355.000	1856.800	9415.000	1858.000	9440.000	1858.800	9505.000	1858.000	9540.000
GR	1852.000	9562.000	1849.600	9575.000	1852.000	9587.000	1860.000	9615.000	1860.000	9745.000
GR	1859.000	9805.000	1860.000	9830.000	1860.600	9900.000	1860.000	9940.000	1850.000	9975.000
GR	1846.000	10000.000	1850.000	10025.000	1858.000	10050.000	1860.000	10115.000	1860.300	10135.000
GR	1860.000	10155.000	1855.300	10200.000	1858.000	10365.000	1860.000	10395.000	1862.000	10520.000
GR	1860.000	10780.000	1858.000	10815.000	1858.000	10945.000	1860.000	11040.000	1862.000	11050.000
GR	1864.000	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.040	2572.000	0.130	3143.000	0.035	3232.000	0.130	3860.000	0.035
NH	3999.000	0.130	4420.000	0.050	4910.000	0.130	5275.000	0.000	0.000	0.000
		Centerline Station at 3935								
X1	9.880	89.000	3860.000	3999.000	680.000	680.000	680.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	3831.000	1863.400	3999.000	1864.700	0.000	0.000	0.000
GR	1893.400	668.000	1870.600	713.000	1863.000	746.000	1863.000	816.000	1862.500	851.000
GR	1862.800	908.000	1863.300	952.000	1863.200	981.000	1863.200	1017.000	1863.400	1050.000
GR	1862.300	1096.000	1862.600	1125.000	1862.100	1160.000	1862.900	1234.000	1863.700	1302.000
GR	1863.400	1385.000	1863.800	1461.000	1861.900	1533.000	1861.100	1607.000	1861.500	1697.000

GR	1861.500	1773.000	1862.600	1858.000	1862.800	1933.000	1862.500	2021.000	1863.200	2088.000
GR	1861.900	2185.000	1862.800	2246.000	1862.900	2295.000	1863.300	2322.000	1863.300	2379.000
GR	1863.400	2451.000	1862.800	2523.000	1861.200	2564.000	1862.700	2572.000	1862.400	2604.000
GR	1862.300	2655.000	1862.700	2710.000	1862.100	2745.000	1861.200	2797.000	1861.500	2846.000
GR	1864.300	2879.000	1862.400	2947.000	1860.000	2978.000	1860.200	3004.000	1859.900	3027.000
GR	1860.700	3045.000	1862.400	3120.000	1862.000	3143.000	1856.500	3155.000	1852.800	3164.000

GR	1852.200	3170.000	1852.300	3175.000	1863.600	3194.000	1863.900	3232.000	1863.900	3277.000
GR	1862.300	3305.000	1862.200	3344.000	1863.900	3423.000	1863.900	3491.000	1862.700	3557.000
GR	1862.200	3574.000	1862.200	3616.000	1861.700	3666.000	1861.600	3704.000	1861.600	3731.000
GR	1861.200	3744.000	1862.900	3784.000	1863.400	3831.000	1862.600	3860.000	1859.700	3886.000
GR	1851.300	3892.000	1849.200	3910.000	1847.300	3935.000	1852.500	3958.000	1861.900	3976.000
GR	1864.700	3999.000	1864.000	4029.000	1863.100	4086.000	1861.400	4108.000	1861.700	4127.000
GR	1860.900	4144.000	1863.900	4177.000	1866.200	4263.000	1866.000	4360.000	1864.400	4420.000
GR	1866.300	4530.000	1867.200	4910.000	1868.000	5020.000	1870.000	5275.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.037	5615.000	0.130	7040.000	0.037	8560.000	0.035	8660.000	0.040
NH	9520.000	0.130	9775.000	0.035	10064.000	0.040	10295.000	0.130	11145.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9944.000	10150.000	0.000	0.000

**** Cheyenne Avenue ****
Single Cross Section Normal Bridge
Centerline Station at 10000
2* Debris Load
Future accelers: if low flow prevails, may convert to 5-arch NB

X1	10.010	65.000	9944.000	10064.000	605.000	795.000	735.000	0.000	0.000	0.000
BT	4.000	9944.000	1868.900	1868.900	9968.200	1868.800	1866.800	10031.700	1868.800	1866.800
BT	10064.000	1868.900	1868.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1878.000	5330.000	1876.000	5505.000	1876.000	5615.000	1876.000	5685.000	1874.000	5795.000
GR	1872.000	6155.000	1870.000	6445.000	1868.000	6775.000	1866.000	6860.000	1865.800	6900.000
GR	1866.000	6950.000	1867.200	6995.000	1866.000	7040.000	1866.000	7085.000	1868.000	7120.000
GR	1869.100	7150.000	1868.000	7165.000	1866.000	7175.000	1864.000	7195.000	1864.000	7225.000
GR	1866.000	7250.000	1868.000	7260.000	1870.000	7600.000	1870.000	7925.000	1868.000	8220.000
GR	1867.600	8560.000	1860.000	8570.000	1858.000	8600.000	1858.100	8610.000	1868.000	8660.000
GR	1869.800	8750.000	1868.000	9105.000	1867.500	9350.000	1868.000	9520.000	1868.000	9775.000
GR	1867.500	9850.000	1868.900	9944.000	1866.800	9968.200	1859.600	9968.300	1859.600	9975.700
GR	1866.300	9975.800	1866.800	9982.200	1859.600	9982.300	1859.600	9989.700	1866.800	9989.800
GR	1866.300	9996.000	1859.600	9996.100	1859.600	10003.700	1866.800	10003.800	1866.800	10010.200
GR	1859.600	10010.300	1859.600	10017.600	1866.800	10017.700	1866.800	10024.100	1859.600	10024.200
GR	1859.600	10031.600	1866.800	10031.700	1868.900	10064.000	1870.000	10295.000	1870.000	10575.000
GR	1872.300	10605.000	1874.000	10625.000	1874.000	10965.000	1876.000	11135.000	1878.000	11145.000
NH	5.000	0.037	8670.000	0.100	9465.000	0.040	9940.000	0.035	10050.000	0.040
NH	10590.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	6200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9605.000	10160.000	0.000	0.000

Centerline Station at 10000

X1	10.150	49.000	9940.000	10050.000	845.000	535.000	690.000	0.000	0.000	0.000
GR	1878.000	6160.000	1876.000	6400.000	1874.000	6420.000	1874.000	6610.000	1872.000	6705.000
GR	1870.000	6900.000	1868.000	7000.000	1868.000	7360.000	1870.000	7480.000	1872.000	7610.000
GR	1871.700	7910.000	1870.000	8075.000	1860.000	8100.000	1860.000	8110.000	1870.000	8145.000
GR	1872.000	8165.000	1872.000	8240.000	1874.000	8460.000	1874.000	8570.000	1872.000	8605.000
GR	1874.000	8670.000	1874.200	8860.000	1874.000	9015.000	1872.200	9085.000	1874.000	9135.000
GR	1874.000	9325.000	1872.000	9360.000	1872.000	9465.000	1874.000	9530.000	1874.300	9605.000
GR	1874.300	9695.000	1872.000	9810.000	1870.000	9820.000	1870.000	9835.000	1872.000	9850.000
GR	1874.000	9940.000	1872.000	9960.000	1864.000	9990.000	1864.000	10005.000	1866.000	10015.000
GR	1872.000	10040.000	1874.000	10050.000	1876.000	10160.000	1876.000	10185.000	1874.000	10215.000
GR	1874.300	10295.000	1876.000	10340.000	1876.000	10530.000	1878.000	10590.000	0.000	0.000

NC	0.342	0.037	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	1.000	5300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	0.000	0.000	0.000	0.000	9560.000	0.000	0.000	0.000

Centerline Station at 10000
Reduction in Q25 flow by 900 cfs due to divided flow at x10.46
and 10.49 (flow returns at x10.15)

X1	10.260	58.000	9965.000	10080.000	585.000	540.000	585.000	0.000	0.000	0.000
GR	1884.000	6005.000	1882.000	6345.000	1880.000	6475.000	1878.000	6540.000	1876.000	6580.000
GR	1874.000	6660.000	1872.300	6760.000	1872.000	6865.000	1872.000	6915.000	1872.400	7095.000
GR	1872.000	7230.000	1872.000	7255.000	1878.000	7275.000	1876.300	7345.000	1876.000	7430.000
GR	1876.000	7530.000	1870.000	7550.000	1868.000	7565.000	1870.000	7580.000	1876.000	7615.000
GR	1874.000	7745.000	1872.000	7755.000	1872.000	7785.000	1874.000	7795.000	1876.000	7810.000
GR	1877.300	7865.000	1876.000	8020.000	1876.000	8055.000	1878.000	8130.000	1878.000	8265.000
GR	1879.800	8550.000	1878.000	8870.000	1876.000	8880.000	1878.000	8895.000	1878.000	8985.000
GR	1879.500	9050.000	1878.000	9240.000	1876.400	9260.000	1878.000	9270.000	1878.000	9540.000
GR	1880.000	9560.000	1880.000	9650.000	1878.000	9725.000	1876.800	9865.000	1876.000	9965.000
GR	1868.000	9995.000	1867.700	10000.000	1868.000	10005.000	1870.000	10015.000	1870.000	10060.000
GR	1876.000	10080.000	1878.000	10135.000	1878.000	10330.000	1880.000	10445.000	1882.000	10550.000
GR	1884.000	10640.000	1884.000	10900.000	1886.000	10995.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9565.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9965.000	0.000	0.000	0.000

Centerline Station at 10000

X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1888.000	5015.000	1886.000	5025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.000	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.000	10675.000	1886.000	10910.000	1888.000	10835.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 7283.0 8300.0 TYPE= 1 TARGET= 1020.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1852.00 ELREA= 1850.70

SECNO=River Mileage (above Advanced Wastewater Treatment Plant)
Centerline Station at 7740

9.47	9.45	1851.75	0.33	0.00	1852.20	0.45	0.00	0.00	1852.00
6400.	0.	5450.	950.	0.	935.	753.	0.	0.	1850.70
0.00	0.00	5.83	1.25	0.000	0.027	0.060	0.000	1842.30	7663.53
0.001277	0.	0.	0.	0	0	0	0.00	636.07	8300.00

1490 NH CARD USED
*SECNO 9.590

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8073.0 8291.0 TYPE= 1 TARGET= 213.000
Centerline Station at 8172

9.59	10.54	1852.54	0.00	0.00	1853.71	1.17	1.29	0.22	1854.10
6200.	0.	6200.	0.	0.	713.	0.	19.	6.	1853.60
0.02	0.00	8.69	0.00	0.000	0.035	0.035	0.000	1842.00	8122.89
0.003297	640.	670.	690.	2	0	0	0.00	102.97	8225.86

FLOW DISTRIBUTION FOR SECNO= 9.59 CWSEL= 1852.54

STA= 8123. 8229.
PER Q= 100.0
AREA= 713.3
VEL= 8.7

1490 NH CARD USED
*SECNO 9.750

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9901.0 10135.0 TYPE= 1 TARGET= 235.000
ELENCL= 1860.60 ELENCR= 1860.30
Centerline Station at 10000
Reduction in Q25 flow by 800 cfs due to split flow at x10.01
through 10.15 (flow returns at x9.59)

9.75	9.29	1855.29	0.00	0.00	1857.75	2.46	3.65	0.39	1850.00
5400.	322.	4793.	285.	49.	365.	44.	30.	8.	1850.00
0.04	6.57	13.15	6.53	0.035	0.035	0.035	0.000	1846.00	9956.48
0.006899	810.	810.	893.	3	0	0	0.00	85.05	10041.53

1490 NH CARD USED
*SECNO 9.880

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 3831.0 3999.0 TYPE= 1 TARGET= 168.000
ELENCL= 1863.40 ELENCR= 1864.70
Centerline Station at 3935

9.88	12.00	1859.30	0.00	0.00	1860.16	0.86	2.25	0.16	1862.60
5400.	0.	5400.	0.	0.	726.	0.	39.	9.	1864.70
0.07	0.00	7.44	0.00	0.035	0.035	0.035	0.000	1847.30	3886.28
0.001939	690.	680.	680.	2	0	0	0.00	84.75	3971.02

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 10.010

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.80 MAX ELLC= 1868.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9944.0 10150.0 TYPE= 1 TARGET= 206.000
**** Cheyenne Avenue ****
Single Cross Section Normal Bridge
Centerline Station at 10000
2* Debris Load
Future modelers: if low flow prevails, may convert to 5-arch NB

10.01	10.87	1870.47	1870.47	0.00	1871.84	1.37	3.51	0.25	1868.90
5400.	0.	4559.	841.	0.	468.	117.	50.	11.	1868.90
0.09	0.00	9.74	7.17	0.035	0.035	0.040	0.000	1859.60	9544.00
0.025100	605.	735.	795.	20	10	0	-183.50	206.00	10150.00

1490 NH CARD USED
*SECNO 10.150

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9605.0 10160.0 TYPE= 1 TARGET= 555.000
Centerline Station at 10000

10.15	10.89	1874.89	0.00	0.00	1875.38	0.49	3.28	0.26	1874.00
6200.	1865.	4313.	22.	625.	673.	22.	66.	17.	1874.00
0.12	2.98	6.41	0.99	0.040	0.035	0.040	0.000	1864.00	9605.00
0.002090	845.	690.	535.	7	0	0	0.00	494.08	10099.08

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9561.0 10995.0 TYPE= 1 TARGET= -9560.000
Centerline Station at 10000
Reduction in Q25 flow by 900 cfs due to divided flow at x10.46
and 10.49 (flow returns at x10.15)

10.25	8.41	1876.11	0.00	0.00	1877.26	1.16	1.69	0.20	1876.00
5300.	0.	5300.	0.	1.	614.	0.	79.	21.	1876.00
0.14	0.33	8.64	0.38	0.042	0.035	0.037	0.000	1867.70	9951.91
0.004550	585.	585.	540.	3	0	0	0.00	130.97	10082.88

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 10.340

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9965.0 10835.0 TYPE= 1 TARGET= -9965.000

Centerline Station at 10000

10.34	7.18	1875.18	1879.18	0.00	1881.79	2.60	3.01	0.43	1882.00
5300.	0.	5300.	0.	0.	409.	0.	84.	23.	1880.00
0.15	0.00	12.94	0.00	0.042	0.035	0.037	0.000	1872.00	9973.45
0.010761	450.	450.	420.	20	12	0	0.00	79.00	10052.45

3

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1875.18

STA= 9973. 10055.
PER Q= 100.0
AREA= 409.5
VEL= 12.9

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.470	0.00	0.00	0.00	1842.30	6400.00	1851.75	0.00	1852.20	12.77	5.83	1688.40	1790.78
	9.590	670.00	0.00	0.00	1842.00	6200.00	1852.54	0.00	1853.71	32.97	8.69	713.34	1079.72
	9.750	810.00	0.00	0.00	1846.00	5400.00	1855.29	0.00	1857.75	68.99	13.15	457.21	650.13
	9.880	680.00	0.00	0.00	1847.30	5400.00	1859.30	0.00	1860.16	19.39	7.44	726.09	1226.41
*	10.010	735.00	1868.80	1868.90	1859.60	5400.00	1870.47	1870.47	1871.84	251.00	9.74	585.43	340.85
	10.150	690.00	0.00	0.00	1864.00	6200.00	1874.89	0.00	1875.38	20.90	6.41	1320.54	1356.20
	10.260	585.00	0.00	0.00	1867.70	5300.00	1876.11	0.00	1877.26	45.50	8.64	614.38	785.71
*	10.340	450.00	0.00	0.00	1872.00	5300.00	1879.18	1879.18	1881.79	107.61	12.94	409.49	510.93

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LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.470	6400.00	1851.75	0.00	0.00	0.00	636.07	0.00
9.590	6200.00	1852.54	0.00	0.79	0.00	102.97	670.00

9.750	5400.00	1855.29	0.00	2.75	0.00	85.85	810.00
9.830	5400.00	1859.30	0.00	4.01	0.00	84.75	680.00
* 10.010	5400.00	1870.47	0.00	11.17	0.00	206.00	735.00
10.150	6200.00	1874.89	0.00	4.42	0.00	494.08	690.00
10.250	5300.00	1876.11	0.00	1.21	0.00	130.97	585.00
* 10.340	5300.00	1879.18	0.00	3.08	0.00	79.00	450.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.010 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.010 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.010 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.340 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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EOF..

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CC      13
CC    9.47        SECNO=River Mileage (above FIS xM)
CC    9.47        Centerline Station at 7740
CC    9.59        Centerline Station at 8172
CC    9.75        Centerline Station at 10000
CC    9.88        Centerline Station at 3935
CC   10.01        **** Cheyenne Avenue ****
CC   10.01        Single Cross Section Normal Bridge
CC   10.01        Centerline Station at 10000
CC   10.01        2' Debris Load
CC   10.01        Future modelers: if low flow prevails, may convert to 5-arch NB
CC   10.15        Centerline Station at 10000
CC   10.26        Centerline Station at 10000
CC   10.34        Centerline Station at 10000
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR
J1                2                                                  1852.09
J2     -1               -1
J3    150
JT      1   13000
NC 0.040   0.100    0.035      0.1      0.3
ET            6.1                                4940     8521
NH      6    .080     5000     .060     5575.     .035     7300.     .060     7655.     .027
NH 7845.     .060    11250
X1   9.47      87     7655     7845      185       185      185
X3     10
X4        2 1852.2     4940   1842.3     7728
GR1852.0     4200   1851.0     4450   1852.5     4900   1852.5     4900   1852.5     4900
GR1851.6 005000   1851.4 005059   1850.7 005063   1850.9 005115   1850.4 005147
GR1850.9 005182   1851.0 005217   1850.4 005256   1850.8 005304   1849.7 005380
GR1850.1 005446   1850.4 005631   1850.4 005694   1850.1 005790   1849.9 005861
GR1849.9 005900   1849.6 005925   1849.3 005941   1849.7 005988   1849.9 006040
GR1849.9 006037   1849.2 006171   1849.2 006214   1848.9 006298   1849.2 006340
GR1849.5 006412   1849.5 006461   1849.6 006511   1849.2 006558   1848.4 006675
GR1850.3 006715   1849.7 006735   1850.4 006804   1850.4 006862   1849.6 006929
GR1849.9 006991   1849.9 007041   1849.9 007097   1850.4 007142   1851.2 007181
GR1850.7 007250   1850.1 007276   1850.3 007300   1850.7 007318   1851.2 007345
GR1851.0 007387   1851.4 007425   1851.4 007484   1851.8 007524   1850.8 007556
GR1850.7 007591   1851.2 007622   1852.3 007655   1851.3 007680   1844.5 007702
GR1842.3 007758   1844.6 007777   1843.8 007783   1850.4 007803   1850.7 007845
GR1850.4 007893   1850.3 007955   1850.4 007996   1850.3 008065   1850.1 008129
GR1849.3 008190   1850.1 008239   1849.7 008253   1849.2 008324   1850.0 008364
GR1851.4 008384   1849.7 008418   1849.9 008453   1849.9 008512   1850.8 008521
GR1848.3    9000   1848.3    9500   1849.2   10200   1850.0   10350   1852.0   10700
GR1854.0   11030   1856.0   11250
QT      1   12500
NH      5    0.04     6215     0.13     7580     0.04     8108    0.035     8229     0.10
NH  9665
ET            7.1                                          5770     8291
X1   9.59      56     8108.    8229.     640       690      670
X2                                                                          15
GR1856.0     4780   1856.0     5140   1854.0     5400   1852.1     5585   1852.3     6215
GR1854.0     6270   1854.0     6385   1852.9     6465   1854.0     6510   1854.0     6845
GR1852.5     6915   1854.0     6955   1854.0     7580   1853.5     7705   1854.0     7740
GR1854.0 007935   1854.6 008009   1854.6 008078   1854.1 008108   1853.9 008119
GR1844.8 008145   1843.7 008155   1842.7 008168   1842.0 008172   1842.8 008178
GR1842.7 008187   1843.8 008200   1853.6 008229   1853.4 008260   1855.7 008291
GR1854.9 008307   1854.6 008363   1854.4 008403   1854.6 008448   1855.2 008469
GR1854.8 008505   1854.6 008538   1854.8 008555   1854.8 008588   1853.8 008714
GR1854.4 008739   1854.3 008826   1853.4 008867   1855.4 008899   1857.6 008925
GR1858.1 008950   1856.6 009015   1856.6 009037   1856.6 009051   1856.6 009072
GR1858.0    9345   1856.0    9425   1855.0    9540   1856.0    9565   1858.0    9615
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GR1860.0	9665								
NH 6	0.04	8785	0.13	9540	0.035	9615	0.13	9940	0.035
NH 10115	0.13	11065							
ET	7.1					8785	10135		
X1 9.75	41	9975	10025	810	890	810			
GR1864.0	6460	1862.0	6625	1850.0	6695	1858.0	6860	1859.5	7600
GR1858.0	8070	1856.0	8120	1856.0	8215	1858.0	8275	1858.0	8785
GR1858.0	9355	1856.8	9415	1858.0	9440	1858.8	9505	1858.0	9540
GR1852.0	9562	1849.6	9575	1852.0	9587	1860.0	9615	1860.0	9745
GR1859.0	9805	1860.0	9830	1850.6	9900	1860.0	9940	1850.0	9975
GR1846.0	10000	1850.0	10025	1858.0	10050	1860.0	10115	1860.3	10135
GR1860.0	10155	1855.3	10200	1858.0	10365	1860.0	10395	1862.0	10520
GR1860.0	10780	1858.0	10815	1859.0	10945	1860.0	11040	1862.0	11050
GR1864.0	11065								
NH 8	0.04	2572	0.13	3143	0.035	3232	0.13	3860	0.035
NH 3999	0.13	4420	0.05	4910	0.13	5275			
X1 9.88	89	3960.	3999.	680.	680.	680.			
X3			2879	1864.3	3999	1864.7			
GR1883.4	000658	1870.6	000713	1863.0	000746	1863.0	000816	1862.5	000851
GR1862.8	000908	1863.3	000952	1853.2	000981	1863.2	001017	1863.4	001050
GR1862.8	001096	1862.6	001125	1852.1	001160	1862.9	001234	1863.7	001302
GR1863.4	001335	1863.8	001461	1861.9	001533	1861.1	001607	1861.5	001697
GR1861.5	001773	1862.6	001858	1862.8	001933	1862.5	002021	1863.2	002088
GR1861.9	002135	1862.8	002245	1852.9	002295	1863.3	002322	1863.3	002379
GR1863.4	002451	1862.8	002523	1851.2	002564	1862.7	002572	1862.4	002604
GR1862.3	002655	1862.7	002710	1862.1	002745	1861.2	002797	1861.5	002846
GR1864.0	002879	1862.4	002947	1860.0	002978	1860.2	003004	1859.9	003027
GR1860.7	003045	1862.4	003120	1862.0	003143	1856.5	003155	1852.8	003164
GR1852.2	003170	1852.3	003175	1853.6	003194	1863.9	003232	1863.9	003277
GR1862.3	003305	1862.2	003344	1863.9	003423	1863.9	003491	1862.7	003557
GR1862.2	003574	1862.2	003616	1861.7	003666	1861.6	003704	1861.6	003731
GR1861.2	003744	1862.9	003784	1863.4	003831	1862.6	003860	1859.7	003886
GR1851.0	003892	1849.2	003910	1847.3	003935	1852.5	003958	1861.9	003976
GR1864.7	003999	1864.0	004029	1853.1	004086	1861.4	004108	1861.7	004127
GR1860.9	004144	1863.9	004177	1856.2	004263	1866.0	4360	1864.4	4420
GR1866.0	4530	1867.2	4910	1868.0	5020	1870.0	5275		
NC			0.3		0.5				
NH 9	0.037	5615	0.13	7040	0.037	8560	0.035	8660	0.040
NH 9520	0.13	9775	0.035	10064	0.040	10295	0.13	11145	
ET	7.1					7600			
X1 10.01	65	9944	10064	605	795	735			
BT 4	9944	1868.9	1868.9	9958.2	1868.8	1866.8	10031.7	1868.8	1866.8
BT 10064	1868.9	1868.9							
GR1878.0	5330	1876.0	5505	1876.0	5615	1876.0	5685	1874.0	5795
GR1872.0	6155	1870.0	6445	1868.0	6775	1866.0	6860	1865.0	6900
GR1866.0	6950	1867.2	6995	1866.0	7040	1866.0	7085	1868.0	7120
GR1869.1	7150	1868.0	7165	1866.0	7175	1864.0	7195	1864.0	7225
GR1866.0	7250	1868.0	7260	1870.0	7600	1870.0	7925	1868.0	8220
GR1867.6	8560	1860.0	8570	1858.0	8600	1858.1	8610	1868.0	8660
GR1869.8	8750	1868.0	9105	1867.5	9350	1868.0	9520	1868.0	9775
GR1867.5	9850	1868.9	9944	1866.8	9968.2	1859.6	9968.3	1859.6	9975.7
GR1866.8	9975.8	1866.8	9982.2	1859.6	9982.3	1859.6	9989.7	1866.8	9989.8
GR1866.8	9996.0	1859.6	9996.1	1859.6	10003.7	1866.8	10003.8	1866.8	10010.2
GR1859.6	10019.3	1859.6	10017.6	1856.8	10017.7	1866.8	10024.1	1859.6	10024.2
GR1859.6	10031.6	1866.8	10031.7	1868.9	10064	1870.0	10295	1870.0	10575
GR1872.0	10605	1874.0	10625	1874.0	10965	1876.0	11135	1878.0	11145
NH 5	0.037	8670	0.10	9465	0.040	9940	0.035	10050	0.040
NH 10598									
ET	7.1					7610	10160		
X1 10.15	49	9940	10050	845	535	690			
GR1878.0	6160	1876.0	6400	1874.0	6420	1874.0	6610	1872.0	6705
GR1870.0	6900	1868.0	7000	1868.0	7360	1870.0	7480	1872.0	7610
GR1871.7	7910	1870.0	8075	1860.0	8100	1860.0	8110	1870.0	8145
GR1872.0	8165	1872.0	8240	1874.0	8460	1874.0	8570	1872.0	8605
GR1874.0	8670	1874.2	8960	1874.0	9015	1872.2	9085	1874.0	9135
GR1874.0	9325	1872.0	9360	1872.0	9465	1874.0	9530	1874.3	9605
GR1874.0	9695	1872.0	9810	1870.0	9820	1870.0	9835	1872.0	9850
GR1874.0	9940	1872.0	9960	1864.0	9990	1864.0	10015	1866.0	10015

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GR1872.0   10040   1874.0   10050   1876.0   10160   1876.0   10135   1874.0   10215
GR1874.0   10295   1876.0   10340   1876.0   10530   1878.0   10590
NC 0.042   0.037    0.035     0.1     0.3
ET             7.1                                    7615
X1 10.26        58     9965   10080     585      540     585
GR1884.0      6005   1882.0    6345   1880.0    6475   1878.0    6540   1876.0    6580
GR1874.0      6660   1872.3    6760   1872.0    6865   1872.0    6915   1872.4    7095
GR1872.0      7230   1872.0    7255   1878.0    7275   1876.3    7345   1876.0    7430
GR1876.0      7530   1870.0    7550   1868.0    7565   1870.0    7580   1876.0    7615
GR1874.0      7745   1872.0    7755   1872.0    7785   1874.0    7795   1876.0    7810
GR1877.8      7865   1876.0    8020   1876.0    8055   1878.0    8130   1878.0    8265
GR1879.8      8550   1878.0    8870   1876.0    8880   1878.0    8895   1878.0    8985
GR1879.5      9050   1878.0    9240   1876.4    9260   1878.0    9270   1878.0    9540
GR1880.0      9560   1880.0    9650   1878.0    9725   1876.8    9865   1876.0    9965
GR1868.0      9995   1867.7   10000   1868.0   10005   1870.0   10015   1870.0   10060
GR1876.0     10080   1878.0   10135   1878.0   10330   1880.0   10445   1882.0   10550
GR1884.0     10640   1884.0   10900   1886.0   10995
NH       5    0.04     6660     0.10     8790    0.042     9965    0.035    10055    0.037
NH 10835
ET             7.1                                    8215
X1 10.34        53     9965   10055      450      420     450
X2                                                              15
GR1888.0      6015   1886.0    6025   1884.0    6075   1882.0    6295   1880.0    6315
GR1878.9      6420   1880.0    6480   1883.0    6505   1880.0    6515   1876.0    6535
GR1876.0      6545   1882.0    6560   1884.0    6660   1886.0    6925   1884.0    7025
GR1884.0      7110   1886.0    7210   1886.0    7320   1884.0    7380   1884.0    7445
GR1882.0      7460   1881.3    7490   1882.0    7505   1884.0    7670   1882.0    7685
GR1882.0      7775   1884.0    7805   1884.2    7900   1884.0    8035   1882.7    8100
GR1884.0      8170   1884.3    8215   1884.0    8270   1882.0    8390   1881.6    8450
GR1882.0      8500   1882.0    8600   1882.0    8790   1881.6    8875   1882.0    8975
GR1882.0      9185   1881.6    9635   1882.0    9775   1882.0    9965   1872.0    9995
GR1872.0     10030   1880.0   10055   1882.0   10190   1882.0   10310   1884.0   10350
GR1884.8     10675   1886.0   10910   1888.0   10835
EJ
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ER
EOF..
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I**************************************************
 *  WATER SURFACE PROFILES                        *
 *  VERSION OF NOVEMBER 1976                      *
 *  UPDATED AUGUST 1983                           *
 *                                                *
 *  RUN DATE  20-SEP-88 TIME    15:18:28          *
 **************************************************
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114


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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X           XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX    XXXXX            XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 50-YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.000000      0.00      0.0       0.  1852.080     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      1.000  13000.000      0.000         0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.340      0.100      0.035         0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.000      6.100      0.000         0.000     0.000  4940.000  8521.000     0.000     0.000     0.000
NH      6.000      0.080   5000.000         0.060  6675.000     0.035  7300.000     0.060  7655.000     0.027
NH   7845.000      0.060  11250.000         0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above FIS xM)
                Centerline Station at 7740
X1      9.470     87.000   7655.000      7845.000   185.000   185.000   185.000     0.000     0.000     0.000
X3     10.000      0.000      0.000         0.000     0.000     0.000     0.000     0.000     0.000     0.000
X4      2.000   1852.200   4940.000      1842.300  7728.000     0.000     0.000     0.000     0.000     0.000
GR   1852.100   4200.000   1951.000      4450.000  1852.500  4900.000  1852.500  4900.000  1852.500  4900.000
GR   1851.600   5000.000   1951.400      5059.000  1850.700  5063.000  1650.900  5115.000  1850.400  5147.000
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GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.300	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.300	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6215.000	0.130	7580.000	0.040	8108.000	0.035	8229.000	0.100
NH	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	5770.000	8291.000	0.000	0.000
		Centerline Station at 8172								
X1	9.590	56.000	8108.000	8229.000	640.000	690.000	670.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1856.100	4780.000	1856.000	5140.000	1854.000	5400.000	1852.100	5585.000	1852.300	6215.000
GR	1854.000	6270.000	1854.000	6385.000	1852.900	6465.000	1854.000	6510.000	1854.000	6845.000
GR	1852.500	6915.000	1854.000	6995.000	1854.000	7580.000	1853.500	7705.000	1854.000	7740.000
GR	1854.000	7835.000	1854.600	8009.000	1854.600	8078.000	1854.100	8108.000	1853.900	8119.000
GR	1844.300	8145.000	1843.700	8155.000	1842.700	8168.000	1842.000	8172.000	1842.800	8178.000
GR	1842.700	8187.000	1843.800	8200.000	1853.600	8229.000	1853.400	8260.000	1855.700	8291.000
GR	1854.300	8307.000	1854.600	8363.000	1854.400	8403.000	1854.600	8448.000	1855.200	8469.000
GR	1854.800	8505.000	1854.600	8538.000	1854.800	8555.000	1854.800	8588.000	1853.800	8714.000
GR	1854.400	8739.000	1854.300	8826.000	1853.400	8867.000	1855.400	8899.000	1857.600	8925.000
GR	1858.100	8950.000	1856.600	9015.000	1856.600	9037.000	1856.600	9061.000	1856.600	9072.000
GR	1858.300	9345.000	1856.000	9425.000	1855.000	9540.000	1856.000	9565.000	1858.000	9615.000
GR	1860.300	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.300	0.040	9785.000	0.130	9540.000	0.035	9615.000	0.130	9940.000	0.035
NH	10115.300	0.130	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8785.000	10135.000	0.000	0.000
		Centerline Station at 10000								
X1	9.750	41.000	9975.000	10025.000	810.000	890.000	810.000	0.000	0.000	0.000
GR	1864.300	6460.000	1862.000	6625.000	1860.000	6695.000	1858.000	6860.000	1859.500	7600.000
GR	1858.000	8070.000	1856.000	8120.000	1856.000	8215.000	1858.000	8275.000	1858.000	8785.000
GR	1858.000	9355.000	1856.800	9415.000	1858.000	9440.000	1858.800	9505.000	1858.000	9540.000
GR	1852.000	9562.000	1849.600	9575.000	1852.000	9587.000	1860.000	9615.000	1860.000	9745.000
GR	1859.000	9805.000	1960.000	9830.000	1860.600	9900.000	1860.000	9940.000	1850.000	9575.000
GR	1846.300	10000.000	1850.000	10025.000	1858.000	10050.000	1860.000	10115.000	1860.300	10135.000
GR	1860.000	10155.000	1855.300	10200.000	1858.000	10365.000	1860.000	10395.000	1862.000	10520.000
GR	1860.300	10780.000	1858.000	10815.000	1858.000	10945.000	1860.000	11040.000	1862.000	11050.000
GR	1864.300	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.300	0.040	2572.000	0.130	3143.000	0.035	3232.000	0.130	3860.000	0.035
NH	3999.300	0.130	4420.000	0.050	4910.000	0.130	5275.000	0.000	0.000	0.000
		Centerline Station at 3935								
X1	9.380	89.000	3860.000	3999.000	680.000	680.000	680.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	2879.000	1864.000	3999.000	1864.700	0.000	0.000	0.000
GR	1883.400	668.000	1870.600	713.000	1863.000	746.000	1863.000	816.000	1862.500	851.000
GR	1862.800	908.000	1863.300	952.000	1863.200	981.000	1863.200	1017.000	1863.400	1050.000
GR	1862.300	1096.000	1862.600	1125.000	1862.100	1160.000	1862.900	1234.000	1863.700	1302.000
GR	1863.400	1385.000	1863.800	1461.000	1861.900	1533.000	1861.100	1607.000	1861.500	1697.000
GR	1861.500	1773.000	1862.600	1858.000	1862.800	1933.000	1862.500	2021.000	1863.200	2088.000
GR	1861.900	2185.000	1862.800	2245.000	1862.900	2295.000	1863.300	2322.000	1863.300	2379.000
GR	1863.400	2451.000	1862.800	2523.000	1861.200	2564.000	1862.700	2572.000	1862.400	2604.000

GR	1862.300	2655.000	1862.700	2710.000	1862.100	2745.000	1861.200	2797.000	1861.500	2846.000
GR	1864.100	2879.000	1862.400	2947.000	1860.000	2978.000	1860.200	3004.000	1859.900	3027.000
GR	1860.700	3045.000	1862.400	3120.000	1862.000	3143.000	1856.500	3155.000	1852.800	3164.000
GR	1852.200	3170.000	1852.300	3175.000	1863.600	3194.000	1863.900	3232.000	1863.900	3277.000
GR	1862.300	3305.000	1862.200	3344.000	1863.900	3423.000	1863.900	3491.000	1862.700	3557.000
GR	1862.200	3574.000	1862.200	3616.000	1861.700	3666.000	1861.600	3704.000	1861.600	3731.000

GR	1861.200	3744.000	1862.900	3784.000	1863.400	3831.000	1862.600	3860.000	1859.700	3886.000
GR	1851.100	3892.000	1849.200	3910.000	1847.300	3935.000	1852.500	3958.000	1861.900	3976.000
GR	1864.700	3999.000	1864.000	4029.000	1863.100	4086.000	1861.400	4108.000	1861.700	4127.000
GR	1860.900	4144.000	1863.900	4177.000	1866.200	4263.000	1866.000	4360.000	1864.400	4420.000
GR	1866.300	4530.000	1867.200	4910.000	1868.000	5020.000	1870.000	5275.000	0.000	0.000
NC	0.300	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.300	0.037	5615.300	0.130	7040.000	0.037	8560.000	0.035	8660.000	0.040
NH	9520.000	0.130	9775.000	0.035	10064.000	0.040	10295.000	0.130	11145.000	0.000
ET	0.300	7.100	0.000	0.000	0.000	0.000	7600.000	0.000	0.000	0.000

****** Cheyenne Avenue ******
Single Cross Section Normal Bridge
Centerline Station at 10000
2' Debris Load
Future modelers: if low flow prevails, may convert to 5-arch NB

X1	10.000	65.000	9944.000	10064.000	605.000	795.000	735.000	0.000	0.000	0.000
BT	4.000	9944.000	1868.900	1868.900	9968.200	1868.800	1866.800	10031.700	1868.800	1866.800
BT	10064.000	1868.900	1868.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1878.000	5330.000	1876.000	5505.000	1876.000	5615.000	1876.000	5685.000	1874.000	5795.000
GR	1872.300	6155.000	1870.000	6445.000	1868.000	6775.000	1866.000	6860.000	1865.800	6900.000
GR	1866.300	6950.000	1867.200	6995.000	1866.000	7040.000	1866.000	7085.000	1868.000	7120.000
GR	1869.100	7150.000	1868.000	7165.000	1866.000	7175.000	1864.000	7195.000	1864.000	7225.000
GR	1866.000	7250.000	1868.000	7260.000	1870.000	7600.000	1870.000	7925.000	1868.000	8220.000
GR	1867.600	8560.000	1860.000	8570.000	1858.000	8600.000	1858.100	8610.000	1868.000	8660.000
GR	1869.300	8750.000	1868.000	9105.000	1867.500	9350.000	1868.000	9520.000	1868.000	9775.000
GR	1867.500	9850.000	1868.900	9944.000	1866.800	9968.200	1859.600	9968.300	1859.600	9575.700
GR	1866.300	9975.800	1866.800	9982.200	1859.600	9982.300	1859.600	9989.700	1866.800	9969.800
GR	1866.300	9996.000	1859.600	9996.100	1859.600	10003.700	1866.800	10003.800	1866.800	10010.200
GR	1859.600	10010.300	1859.600	10017.600	1866.800	10017.700	1866.800	10024.100	1859.600	10024.200
GR	1859.600	10031.600	1866.800	10031.700	1868.900	10064.000	1870.000	10295.000	1870.000	10575.000
GR	1872.300	10605.000	1874.000	10625.000	1874.000	10965.000	1876.000	11135.000	1878.000	11145.000
NH	5.300	0.037	8670.000	0.100	9465.000	0.040	9940.000	0.035	10050.000	0.040
NH	10590.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	7.100	0.000	0.000	0.000	0.000	7610.000	10160.000	0.000	0.000

Centerline Station at 10000

X1	10.150	49.000	9940.000	10050.000	845.000	535.000	690.000	0.000	0.000	0.000
GR	1878.000	6160.000	1876.000	6400.000	1874.000	6420.000	1874.000	6610.000	1872.000	6705.000
GR	1870.000	6900.000	1868.000	7000.000	1868.000	7360.000	1870.000	7480.000	1872.000	7610.000
GR	1871.700	7910.000	1870.000	8075.000	1860.000	8100.000	1860.000	8110.000	1870.000	8145.000
GR	1872.300	8165.000	1872.000	8240.000	1874.000	8460.000	1874.000	8570.000	1872.000	8605.000
GR	1874.300	8670.000	1874.200	8860.000	1874.000	9015.000	1872.200	9085.000	1874.000	9135.000
GR	1874.300	9325.000	1872.000	9360.000	1872.000	9465.000	1874.000	9530.000	1874.300	9605.000
GR	1874.000	9695.000	1872.000	9810.000	1870.000	9820.000	1870.000	9835.000	1872.000	9850.000
GR	1874.300	9940.000	1872.000	9960.000	1864.000	9990.000	1864.000	10005.000	1866.000	10015.000
GR	1872.300	10040.000	1874.000	10050.000	1876.000	10160.000	1876.000	10185.000	1874.000	10215.000
GR	1874.000	10295.000	1876.000	10340.000	1876.000	10530.000	1878.000	10590.000	0.000	0.000
NC	0.342	0.037	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.300	7.100	0.000	0.000	0.000	0.000	7615.000	0.000	0.000	0.000

Centerline Station at 10000

X1	10.260	58.000	9965.000	10080.000	585.000	540.000	585.000	0.000	0.000	0.000
GR	1884.100	6005.000	1882.000	6345.000	1880.000	6475.000	1878.000	6540.000	1876.000	6580.000
GR	1874.000	6660.000	1872.300	6760.000	1872.000	6865.000	1872.000	6915.000	1872.400	7095.000

GR	1872.000	7230.000	1872.000	7255.000	1878.000	7275.000	1876.300	7345.000	1876.000	7430.000
GR	1876.000	7530.000	1870.000	7550.000	1868.000	7565.000	1870.000	7580.000	1876.000	7615.000
GR	1874.000	7745.000	1872.000	7755.000	1872.000	7785.000	1874.000	7795.000	1876.000	7810.000
GR	1877.800	7865.000	1876.000	8020.000	1876.000	8055.000	1878.000	8130.000	1878.000	8265.000
GR	1879.300	8550.000	1878.000	8870.000	1876.000	8880.000	1878.000	8895.000	1878.000	8985.000
GR	1879.500	9050.000	1878.000	9240.000	1876.400	9260.000	1876.000	9270.000	1878.000	9540.000
GR	1880.000	9560.000	1880.000	9650.000	1878.000	9725.000	1876.800	9865.000	1876.000	9965.000
GR	1868.000	9995.000	1867.700	10000.000	1868.000	10005.000	1870.000	10015.000	1870.000	10060.000
GR	1876.000	10080.000	1878.000	10135.000	1878.000	10330.000	1880.000	10445.000	1882.000	10550.000
GR	1884.000	10640.000	1884.000	10900.000	1886.000	10995.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9965.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	9.000	7.100	0.001	0.000	0.000	0.000	8215.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1888.000	6015.000	1886.000	6025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.800	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.800	10675.000	1886.000	10810.000	1888.000	10835.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 4940.0 8521.0 TYPE= 1 TARGET= 3581.000
SECNO=River Mileage (above FIS xM)
Centerline Station at 7740

9.47	9.78	1852.08	0.00	0.00	1852.21	0.13	0.00	0.00	1952.00
13000.	6870.	4581.	1549.	5143.	997.	1373.	0.	0.	1850.70
0.00	1.33	4.60	1.13	0.052	0.027	0.060	0.000	1842.30	4952.00
0.000777	185.	185.	185.	0	0	0	0.00	3569.00	8521.00

1490 NH CARD USED
*SECNO 9.590

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 5770.0 8291.0 TYPE= 1 TARGET= 2521.000
Centerline Station at 8172

9.59	12.39	1854.39	1854.39	0.00	1855.31	0.92	0.91	0.23	1854.10

```
  12500.     4021.     8453.       25.     1895.      917.       34.       78.       44.   1853.60
    0.03      2.13      9.22      0.74      0.49      0.35      0.10      0.00   1842.00   5770.00
0.003288       640.      670.      690.        20        13         0      0.00   2360.77   8273.34
)
 FLOW DISTRIBUTION FOR SECNO=      9.59          CWSEL=   1854.35

 STA=    5770.     6215.     7580.     8108.     8229.     8273.
   PER Q=    27.3       3.1       1.8      67.6       0.2
    AREA=   961.4     760.0     163.9     916.9      34.2
     VEL=     3.5       0.5       1.3       9.2       0.7

1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XAL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 1490 NH CARD USED
 *SECNO 9.750

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=    8785.0   10135.0  TYPE=     1  TARGET=    1350.000
                Centerline Station at 10000
      9.75     12.68   1858.68   1858.68      0.00   1860.45      1.76      3.05      0.25   1850.00
   12500.     4440.     7165.      895.     1016.      534.      125.      120.       75.   1850.00
      0.05      4.37     13.41      7.13     0.042     0.035     0.035     0.000   1846.00   8785.00
 0.004313       810.      810.      890.         4         5         0      0.00    938.45  10072.22
)
 1490 NH CARD USED
 *SECNO 9.880

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=    2879.0    3999.0  TYPE=     1  TARGET=    1120.000
  ELENCL=   1864.00  ELENCR=   1864.70
                Centerline Station at 3935
      9.38     14.39   1861.69      0.00      0.00   1863.18      1.48      2.70      0.03   1862.60
   12500.     2471.    10029.         0.       425.      953.        0.      143.       85.   1864.70
      0.07      5.82     10.53      0.00     0.040     0.035     0.035     0.000   1847.30   2956.13
 0.003672       680.      680.      680.         2         0         0      0.00    374.34   3975.60
)
 CCHV=   0.300  CEHV=   0.500
 1490 NH CARD USED
 *SECNO 10.010

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS

1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.80 MAX ELLC= 1868.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7600.0 11145.0 TYPE= 1 TARGET= -7600.000
**** Cheyenne Avenue ****
Single Cross Section Normal Bridge
Centerline Station at 10000
2' Debris Load
Future modelers: if low flow prevails, may convert to 5-arch NB

10.01	10.57	1868.57	1868.57	0.00	1869.26	0.69	3.09	0.24	1868.90
12500.	11155.	1345.	0.	1632.	271.	0.	168.	95.	1868.90
0.10	6.83	4.97	0.00	0.036	0.035	0.040	0.000	1658.00	8135.45
0.006075	605.	735.	795.	20	11	0	-154.90	1594.54	10058.97

1490 NH CARD USED
*SECNO 10.150

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7610.0 10160.0 TYPE= 1 TARGET= 2550.000
Centerline Station at 10000

10.15	12.71	1872.71	0.00	0.00	1873.39	0.68	4.13	0.00	1874.00
12500.	8972.	3528.	0.	1486.	446.	0.	204.	125.	1874.00
0.13	6.03	7.92	0.00	0.038	0.035	0.040	0.000	1860.00	7610.00
0.004286	845.	690.	535.	1	0	0	0.00	1121.71	10043.55

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7615.0 10995.0 TYPE= 1 TARGET= -7615.000
Centerline Station at 10000

10.26	9.64	1877.34	1877.34	0.00	1878.68	1.34	2.84	0.20	1876.00
12500.	4174.	8269.	57.	903.	756.	25.	228.	138.	1876.00
0.15	4.62	10.94	2.29	0.042	0.035	0.037	0.000	1867.70	7615.00
0.005530	585.	585.	540.	20	16	0	0.00	786.19	10116.88

1490 NH CARD USED
*SECNO 10.340

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8215.0 10835.0 TYPE= 1 TARGET= -8215.000
Centerline Station at 10000

10.34	11.24	1883.24	1883.24	0.00	1883.97	0.73	1.69	0.06	1882.00
12500.	4177.	6857.	1465.	2173.	761.	466.	254.	152.	1680.00
0.17	1.92	9.01	3.14	0.049	0.035	0.037	0.000	1872.00	8315.72
0.002721	450.	450.	420.	20	21	0	0.00	2019.04	10334.76

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1883.24

STA=	8316.	8790.	8975.	9185.	9635.	9775.	9965.	10055.	10190.	10335.
PER Q=	4.0	5.0	4.4	12.2	3.8	4.0	54.9	8.7	3.1	
AREA=	563.2	266.0	260.0	647.1	201.3	235.2	761.4	302.1	163.9	
VEL=	0.9	2.4	2.1	2.4	2.4	2.1	9.0	3.6	2.3	

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 50-YR
SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.470	0.00	0.00	0.00	1842.30	13000.00	1852.08	0.00	1852.21	7.77	4.60	7518.39	4662.83
*	9.590	670.00	0.00	0.00	1842.00	12500.00	1854.39	1854.39	1855.31	32.88	9.22	2836.38	2179.88
*	9.750	810.00	0.00	0.00	1846.00	12500.00	1858.68	1858.68	1860.45	43.13	13.41	1675.08	1903.35
	9.880	680.00	0.00	0.00	1847.30	12500.00	1861.69	0.00	1863.18	36.72	10.53	1377.57	2062.76
*	10.010	735.00	1868.90	1868.90	1858.00	12500.00	1868.57	1868.57	1869.26	60.75	4.97	1903.02	1603.76
	10.150	690.00	0.00	0.00	1860.00	12500.00	1872.71	0.00	1873.39	42.86	7.92	1933.53	1909.41
*	10.260	585.00	0.00	0.00	1867.70	12500.00	1877.34	1877.34	1878.68	55.30	10.94	1683.32	1680.96
*	10.340	450.00	0.00	0.00	1872.00	12500.00	1883.24	1883.24	1883.97	27.21	9.01	3400.30	2396.18

1
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LAS VEGAS WASH - 50-YR
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH

	9.470	13000.00	1852.08	0.00	0.00	0.00	3569.00	0.00
*	9.590	12500.00	1854.39	0.00	2.31	0.00	2360.77	670.00
*	9.750	12500.00	1858.68	0.00	4.29	0.00	939.45	810.00
	9.880	12500.00	1861.69	0.00	3.01	0.00	374.34	680.00
*	10.010	12500.00	1868.57	0.00	6.88	0.00	1594.54	735.00
	10.150	12500.00	1872.71	0.00	4.14	0.00	1121.71	690.00
*	10.260	12500.00	1877.34	0.00	4.63	0.00	786.19	585.00
*	10.340	12500.00	1883.24	0.00	5.90	0.00	2019.04	450.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 9.590 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.590 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.590 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 9.750 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.750 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.010 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.010 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.010 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.260 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.260 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.260 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.340 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  20-SEP-88 TIME   14:51:09          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X           XXXXX    XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX  XXXXX                XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        2.        0.        0.  0.000000    0.00      0.0       0.  1852.200    0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECK     FN        ALLDC     IBW       CHNIM     ITRACE
        1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
      150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      2.000  24000.000  84000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.040      0.100      0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.000      6.100      3.000     3.000     0.000  4940.000  8521.000     0.000     0.000     0.000
XH      6.000      0.080   5000.000     0.060  6675.000     0.035  7300.000     0.060  7655.000     0.027
NH   7845.000      0.060  11250.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNO=RIVER MILEAGE (ABOVE ADVANCED WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 7740
X1      9.470     87.000   7655.000  7845.000     0.000     0.000     0.000     0.000     0.000     0.000
X3     10.000      0.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
X4      1.000   1842.300   7728.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1852.000   4200.000   1851.000  4450.000  1850.000  4900.000  1850.000  4900.000  1850.000  4900.000
GR   1851.600   5000.000   1851.400  5059.000  1850.700  5063.000  1850.900  5115.000  1850.400  5147.000
```

GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6049.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1845.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7252.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7753.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8150.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000

GT	2.000	23000.000	32000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	8215.000	0.130	7580.000	0.040	8108.000	0.035	8229.000	0.100
NH	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	8291.000	0.000	0.000
		CENTERLINE STATION AT 8172								
X1	9.590	56.000	8108.000	8229.000	640.000	690.000	670.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1656.000	4780.000	1856.000	5140.000	1854.000	5400.000	1852.100	5585.000	1852.300	6215.000
GR	1854.000	5270.000	1854.000	6385.000	1852.900	6465.000	1854.000	6510.000	1854.000	6845.000
GR	1852.500	6915.000	1854.000	6995.000	1854.000	7580.000	1853.500	7705.000	1854.000	7740.000
GR	1854.000	7835.000	1854.600	8009.000	1854.600	8078.000	1854.100	8108.000	1853.900	8119.000
GR	1844.800	8145.000	1843.700	8155.000	1842.700	8168.000	1842.000	8172.000	1842.800	8178.000
GR	1842.700	8187.000	1843.800	8200.000	1853.600	8229.000	1853.400	8260.000	1855.700	8291.000
GR	1854.900	8307.000	1854.600	8362.000	1854.400	8403.000	1854.600	8448.000	1855.200	8469.000
GR	1854.800	8505.000	1854.600	8538.000	1854.800	8555.000	1854.800	8588.000	1853.800	8714.000
GR	1854.400	8739.000	1854.300	8826.000	1853.400	8867.000	1855.400	8899.000	1857.600	8925.000
GR	1858.100	8950.000	1856.600	9015.000	1856.600	9037.000	1856.600	9061.000	1856.600	9072.000
GR	1858.000	9345.000	1856.000	9425.000	1855.000	9540.000	1856.000	9565.000	1858.000	9615.000
GR	1860.000	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	8785.000	0.130	9540.000	0.035	9615.000	0.130	9540.000	0.035
NH	10115.000	0.130	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	10135.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	9.750	41.000	9975.000	10025.000	810.000	890.000	810.000	0.000	0.000	0.000
GR	1864.000	6460.000	1862.000	6625.000	1860.000	6695.000	1858.000	6860.000	1859.500	7600.000
GR	1858.000	8070.000	1856.000	8120.000	1856.000	8215.000	1858.000	8275.000	1858.000	8785.000
GR	1858.000	9355.000	1856.300	9415.000	1858.000	9440.000	1858.800	9505.000	1858.000	9540.000
GR	1852.000	9562.000	1849.600	9575.000	1852.000	9587.000	1860.000	9615.000	1860.000	9745.000
GR	1859.000	9805.000	1860.000	9830.000	1860.000	9900.000	1860.000	9940.000	1850.000	9975.000
GR	1846.000	10000.000	1850.000	10025.000	1858.000	10050.000	1860.000	10115.000	1860.300	10135.000
GR	1860.000	10155.000	1855.300	10200.000	1858.000	10365.000	1860.000	10395.000	1862.000	10520.000
GR	1860.000	10780.000	1858.000	10815.000	1858.000	10945.000	1860.000	11040.000	1862.000	11050.000
GR	1864.000	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.040	2572.000	0.130	3143.000	0.035	3232.000	0.130	3860.000	0.035
NH	3999.000	0.130	4420.000	0.000	4910.000	0.130	5275.000	0.000	0.000	0.000
		CENTERLINE STATION AT 3935								
X1	9.880	89.000	3860.000	3999.000	680.000	680.000	680.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3999.000	1864.700	0.000	0.000	0.000
GR	1883.400	668.000	1870.600	713.000	1863.000	746.000	1863.000	816.000	1862.500	851.000
GR	1862.800	908.000	1863.300	952.000	1863.200	981.000	1863.200	1017.000	1863.400	1050.000
GR	1862.800	1096.000	1862.600	1125.000	1862.100	1160.000	1862.900	1234.000	1863.700	1302.000
GR	1863.400	1385.000	1863.800	1461.000	1861.900	1533.000	1861.100	1607.000	1861.500	1697.000
GR	1861.500	1773.000	1862.600	1858.000	1862.800	1933.000	1862.500	2021.000	1863.200	2088.000
GR	1861.900	2185.000	1862.800	2245.000	1862.900	2295.000	1863.300	2322.000	1863.300	2379.000
GR	1863.400	2451.000	1862.800	2523.000	1861.200	2564.000	1862.700	2572.000	1862.400	2604.000

GR	1862.300	2655.000	1862.700	2710.000	1862.100	2745.000	1861.200	2797.000	1861.500	2846.000
GR	1864.000	2879.000	1862.400	2947.000	1860.000	2978.000	1860.200	3004.000	1859.900	3027.000
GR	1860.700	3045.000	1862.400	3120.000	1862.000	3143.000	1856.500	3155.000	1852.800	3164.000
GR	1852.200	3170.000	1852.300	3175.000	1863.600	3194.000	1863.900	3232.000	1863.900	3277.000
GR	1862.300	3305.000	1862.200	3344.000	1863.900	3423.000	1863.900	3491.000	1862.700	3557.000
GR	1862.200	3574.000	1862.200	3616.000	1861.700	3666.000	1861.600	3704.000	1861.600	3731.000

GR	1861.200	3744.000	1862.900	3784.000	1863.400	3831.000	1862.600	3860.000	1859.700	3886.000
GR	1851.000	3892.000	1849.200	3910.000	1847.300	3935.000	1852.500	3958.000	1861.900	3976.000
GR	1864.700	3999.000	1864.000	4029.000	1863.100	4086.000	1861.400	4108.000	1861.700	4127.000
GR	1860.900	4144.000	1863.900	4177.000	1866.200	4263.000	1866.000	4360.000	1864.400	4420.000
GR	1866.000	4530.000	1867.200	4910.000	1868.000	5020.000	1870.000	5275.000	0.000	0.000
NC	0.000	0.000	0.100	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.037	5615.000	0.100	7040.000	0.037	8660.000	0.035	8660.000	0.040
NH	9520.000	0.130	5775.000	0.035	10064.000	0.040	10295.000	0.130	11145.000	0.000

**** CHEYENNE AVENUE ****
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000
2' DEBRIS LOAD
FUTURE MODELERS: IF LOW FLOW PREVAILS, MAY CONVERT TO 5-ARCH NB

X1	10.010	65.000	9944.000	10064.000	605.000	795.000	735.000	0.000	0.000	0.000
BT	4.000	9944.000	1868.900	1868.900	9968.200	1868.800	1866.800	10031.700	1868.800	1866.800
BT	10064.000	1868.900	1868.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1878.000	5330.000	1876.000	5505.000	1876.000	5615.000	1876.000	5685.000	1874.000	5795.000
GR	1872.000	6155.000	1870.000	6445.000	1868.000	6775.000	1868.000	6860.000	1865.800	6900.000
GR	1866.000	6950.000	1867.200	6995.000	1866.000	7040.000	1866.000	7085.000	1868.000	7120.000
GR	1869.100	7150.000	1868.000	7165.000	1866.000	7175.000	1864.000	7195.000	1864.000	7225.000
GR	1866.000	7250.000	1868.000	7260.000	1870.000	7600.000	1870.000	7925.000	1868.000	8220.000
GR	1867.600	8560.000	1860.000	8570.000	1858.000	8600.000	1858.100	8610.000	1868.000	8660.000
GR	1869.800	8750.000	1868.000	9105.000	1867.500	9350.000	1868.000	9520.000	1868.000	9775.000
GR	1867.500	9850.000	1868.900	9944.000	1866.800	9968.200	1859.600	9968.300	1859.600	9975.700
GR	1866.800	9975.800	1866.800	9982.200	1859.600	9982.300	1859.600	9989.700	1866.800	9989.800
GR	1866.800	9996.000	1859.600	9996.100	1859.600	10003.700	1866.800	10003.800	1866.800	10010.200
GR	1859.600	10010.300	1859.600	10017.600	1866.800	10017.700	1866.800	10024.100	1859.600	10024.200
GR	1859.600	10031.600	1866.800	10031.700	1866.900	10064.000	1870.000	10295.000	1870.000	10575.000
GR	1872.000	10605.000	1874.000	10625.000	1874.000	10965.000	1876.000	11135.000	1878.000	11145.000
NH	5.000	0.037	8670.000	0.100	9465.000	0.040	9540.000	0.035	10050.000	0.040
NH	10590.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	10.150	49.000	9940.000	10050.000	845.000	535.000	690.000	0.000	0.000	0.000
GR	1878.000	6160.000	1876.000	6400.000	1874.000	6420.000	1874.000	6610.000	1872.000	6705.000
GR	1870.000	6900.000	1868.000	7000.000	1868.000	7360.000	1870.000	7480.000	1872.000	7610.000
GR	1871.700	7910.000	1870.000	8075.000	1866.000	8100.000	1866.000	8110.000	1870.000	8145.000
GR	1872.000	8165.000	1872.000	8240.000	1874.000	8460.000	1874.000	8570.000	1872.000	8605.000
GR	1874.000	8670.000	1874.200	8860.000	1874.000	9015.000	1872.200	9085.000	1874.000	9135.000
GR	1874.000	9325.000	1872.000	9360.000	1872.000	9465.000	1874.000	9530.000	1874.300	9605.000
GR	1874.000	9695.000	1872.000	9810.000	1870.000	9820.000	1870.000	9835.000	1872.000	9850.000
GR	1874.000	9940.000	1872.000	9960.000	1864.000	9990.000	1864.000	10005.000	1866.000	10015.000
GR	1872.000	10040.000	1874.000	10050.000	1876.000	10160.000	1876.000	10185.000	1874.000	10215.000
GR	1874.000	10295.000	1876.000	10340.000	1876.000	10530.000	1878.000	10590.000	0.000	0.000
NC	0.042	0.037	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	7275.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	10.260	58.000	9965.000	10080.000	585.000	540.000	585.000	0.000	0.000	0.000
GR	1884.000	6035.000	1882.000	6345.000	1880.000	6475.000	1878.000	6540.000	1876.000	6580.000
GR	1874.000	6660.000	1872.300	6760.000	1872.000	6865.000	1872.000	6915.000	1872.400	7095.000
GR	1872.000	7230.000	1872.000	7255.000	1878.000	7275.000	1876.300	7345.000	1876.000	7430.000
GR	1876.000	7530.000	1870.000	7550.000	1868.000	7565.000	1870.000	7580.000	1876.000	7615.000

GR	1874.000	7745.000	1872.000	7755.000	1872.000	7785.000	1874.000	7795.000	1876.000	7810.000
GR	1877.800	7865.000	1876.000	8120.000	1876.000	8555.000	1878.000	8130.000	1878.000	8265.000
GR	1879.800	8550.000	1878.000	8870.000	1876.000	8880.000	1878.000	8895.000	1878.000	8985.000
GR	1879.500	9050.000	1878.000	9240.000	1876.400	9260.000	1878.000	9270.000	1878.000	9540.000
GR	1880.000	9560.000	1880.000	9650.000	1878.000	9725.000	1876.800	9865.000	1876.000	9965.000
GR	1868.000	9995.000	1867.700	10000.000	1866.000	10005.000	1870.000	10015.000	1870.000	10060.000
GR	1876.000	10080.000	1878.000	10135.000	1878.000	10330.000	1880.000	10445.000	1882.000	10550.000
GR	1884.000	10640.000	1884.000	10900.000	1886.000	10995.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8750.000	0.042	9565.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	9.100	0.000	0.000	0.000	7500.000	0.000	6505.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1888.000	6015.000	1886.000	6025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.900	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9135.000	1881.600	9625.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.800	10675.000	1886.000	10810.000	1888.000	10835.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 4940.0 8521.0 TYPE= 1 TARGET= 3581.000
SECNO=RIVER MILEAGE (ABOVE ADVANCED WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 7740

9.47	9.90	1852.20	0.00	0.00	1852.59	0.39	0.00	0.00	1852.00
24000.	12953.	8137.	2909.	5520.	1020.	1454.	0.	0.	1850.70
0.00	2.35	7.98	2.00	0.052	0.027	0.060	0.000	1842.30	4540.00
0.002275	0.	0.	0.	0	0	0	0.00	3581.00	8521.00

1490 NH CARD USED
*SECNO 9.590

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 8172

9.59	13.00	1855.00	1855.00	0.00	1855.52	0.92	1.95	0.16	1854.10
23000.	12194.	10750.	56.	4245.	991.	46.	99.	49.	1853.60
0.03	2.87	10.85	1.21	0.050	0.035	0.100	0.000	1842.00	5270.00
0.004108	640.	670.	690.	20	16	0	0.00	2589.92	8260.00

FLOW DISTRIBUTION FOR SECNO= 9.59 CWSEL= 1855.00

STA= 5270. 5585. 6215. 6515. 7705. 8108. 8229. 8260.

PER Q=	6.2	36.3	3.3	4.4	2.8	46.7	0.2
AREA=	425.5	1763.6	867.6	880.8	307.4	998.6	46.5
VEL=	3.4	4.7	3.9	1.1	2.1	10.9	1.2

1490 NH CARD USED
*SECNO 9.750

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CCHAR	TOPWID	ENDST

3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

9.75	13.75	1859.75	1859.75	0.00	1860.61	0.86	2.93	0.01	1850.00
23000.	14584.	7233.	1183.	4854.	588.	194.	201.	106.	1850.00
0.86	3.03	12.31	6.11	0.046	0.035	0.35	0.000	1846.00	6715.34
0.003198	810.	810.	893.	20	9	0	0.00	3128.56	10106.99

1490 NH CARD USED
*SECNO 9.880

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 3999.0 TYPE= 1 TARGET= 3998.999
CENTERLINE STATION AT 3935

9.88	16.45	1863.75	1863.75	0.00	1864.71	0.97	2.24	0.03	1862.60
23000.	10487.	12513.	0.	3985.	1201.	0.	285.	154.	1864.70
0.09	2.63	10.42	0.00	0.053	0.035	0.112	0.000	1847.30	742.75
0.003394	680.	680.	680.	20	13	0	0.00	3072.22	3991.18

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 10.010

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.82 MAX ELLC= 1868.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
**** CHEYENNE AVENUE ****
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000
2% DEBRIS LOAD
FUTURE MODELERS: IF LOW FLOW PREVAILS, MAY CONVERT TO 5-ARCH NB

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
10.01	10.64	1368.64	1363.64	0.00	1869.46	0.83	3.58	0.04	1868.90
23000.	21219.	1781.	0.	2882.	271.	0.	345.	192.	1868.90
0.12	7.36	6.58	0.00	0.042	0.035	0.040	0.000	1858.00	6670.08
0.010651	605.	735.	795.	20	10	0	-161.91	2304.17	10059.94

1490 NH CARD USED
*SECNO 10.150

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

10.15	12.71	1872.71	0.00	0.00	1873.04	0.33	3.43	0.15	1874.00
23000.	20487.	2513.	0.	4563.	446.	0.	423.	234.	1874.00
0.17	4.48	5.64	0.00	0.037	0.035	0.040	0.000	1860.00	6671.25
0.002176	845.	695.	535.	4	0	0	0.00	2060.45	10043.55

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7275.0 10995.0 TYPE= 1 TARGET= -7275.000

CENTERLINE STATION AT 10000

10.26	10.37	1878.07	1878.07	0.00	1879.14	1.08	1.86	0.22	1876.00
23000.	13378.	9441.	181.	2455.	839.	72.	480.	261.	1876.00
0.19	5.45	11.25	2.53	0.042	0.035	0.037	0.000	1867.70	7275.00
0.005086	585.	585.	540.	20	15	0	0.00	2050.21	10333.78

1490 NH CARD USED
*SECNO 10.340

3265 DIVIDED FLOW

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7900.0 10835.0 TYPE= 1 TARGET= -7900.000

CENTERLINE STATION AT 10000

10.34	12.01	1884.01	1884.01	0.00	1884.92	0.91	1.96	0.02	1882.00
23000.	10510.	9360.	3140.	3548.	831.	687.	523.	283.	1880.00
0.21	2.96	11.27	4.57	0.050	0.035	0.037	0.000	1872.00	8030.14
0.003753	450.	450.	420.	20	12	0	0.00	2225.19	10352.93

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1884.01

STA=	8030.	8600.	8875.	8975.	9185.	9635.	9775.	9965.	10055.	10190.	10310.	10353.
PER Q=	3.7	5.4	3.5	6.4	16.0	5.0	5.7	40.7	9.1	4.1	0.4	

AREA=	653.1	569.0	220.7	421.5	993.2	305.0	381.4	830.6	406.0	240.9	40.3
VEL=	1.3	2.2	3.7	3.5	3.7	3.7	3.5	11.3	5.2	3.9	2.5


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  31,32,33,34,35
  MODIFICATION -  50,51,52,53,54,55
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T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 500-YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        3.        0.        0.  0.000000      0.00      0.0       0.  1853.370     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       15.000     0.000    -1.000     0.000     0.000     0.300     0.000     0.000     0.000     0.000
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 2

CCHV=    0.100  CEHV=    0.300
1490 NH CARD USED
*SECNO 9.470
3280 CROSS SECTION       9.47 EXTENDED       1.37 FEET

                SECNO=RIVER MILEAGE (ABOVE ADVANCED WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 7740
     9.47      11.07  1853.37      0.00  1853.37  1853.75      0.38      0.00      0.00  1852.00
   84000.    33236.   12621.    38144.   13578.    1242.    11394.        0.        0.  1850.70
     0.00      3.14     10.16     3.35     0.055     0.027     0.060     0.000  1842.30  4200.00
 0.002835        0.        0.        0.        0         0         0      0.00  6726.05 10926.05

1490 NH CARD USED
*SECNO 9.590

3265 DIVIDED FLOW

3280 CROSS SECTION       9.59 EXTENDED       1.10 FEET


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 8172
     9.59      15.10  1857.10  1857.10      0.00  1858.44      1.34      2.76      0.29  1854.10
   82000.    56887.   20408.    4706.    10798.    1244.     2111.      283.        85.  1853.60
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0.02	5.27	16.41	2.23	0.055	0.035	0.100	0.000	1842.00	4780.00
0.006924	640.	670.	690.	20	15	0	0.00	4525.56	9592.41

0
FLOW DISTRIBUTION FOR SECNO= 9.59 CWSEL= 1857.10

STA=	4780.	5400.	5585.	6215.	6845.	7580.	7705.	7835.	8009.	8108.	8225.	8714.	9592.
PER Q=	4.9	7.2	33.5	5.3	6.1	3.5	3.3	3.6	1.8	24.9	3.5	2.2	
AREA=	939.6	748.5	3184.6	2066.1	2388.2	418.3	411.3	486.5	254.6	1244.3	1240.7	870.3	
VEL=	4.3	7.9	8.9	2.1	2.1	6.9	6.7	6.1	5.8	16.4	2.3	2.1	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 9.750

CENTERLINE STATION AT 10000

9.75	16.25	1862.35	0.00	0.00	1862.32	0.89	4.45	0.05	1850.00
82000.	62523.	11420.	8056.	12355.	702.	2592.	569.	170.	1850.00
0.06	5.06	16.26	2.69	0.049	0.035	0.090	0.000	1846.00	6621.05
0.004399	810.	810.	890.	2	0	0	0.00	4429.31	11050.36

1490 NH CARD USED
*SECNO 9.880

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 3939.0 TYPE= 1 TARGET= 3958.999

CENTERLINE STATION AT 3935

9.88	18.65	1865.95	1865.95	0.00	1867.44	1.49	3.59	0.18	1862.60
82000.	57427.	24165.	408.	10847.	1504.	371.	793.	234.	1864.70
0.08	5.29	16.07	1.10	0.054	0.130	0.107	0.000	1847.30	733.18
0.006441	680.	680.	680.	3	12	0	0.00	3679.47	4526.00

0
CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 10.010

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.80 MAX ELLC= 1868.90

**** CHEYENNE AVENUE ****
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000
2' DEBRIS LOAD
FUTURE MODELERS: IF LOW FLOW PREVAILS, MAY CONVERT TO 5-ARCH NB

10.01	13.30	1871.30	0.00	0.00	1871.55	0.69	4.31	0.24	1868.90
82000.	76143.	3394.	2463.	11248.	568.	802.	575.	292.	1868.90
0.11	6.77	5.98	3.07	0.045	0.035	0.056	0.000	1858.00	6256.97
0.007267	685.	735.	795.	2	1	0	-183.50	4337.48	10594.45

0
1
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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
&	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOP&ID	ENDST

1498 NH CARD USED
*SECNO 10.150

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

10.15	15.34	1875.34	0.00	0.00	1875.97	0.64	3.97	0.02	1874.00
82000.	75444.	6177.	419.	12130.	722.	190.	1218.	366.	1874.00
0.14	6.22	8.55	2.20	0.039	0.035	0.040	0.000	1860.00	6406.60
0.003387	845.	690.	535.	2	0	0	0.00	3847.37	10325.15

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3665 20 TRIALS ATTEMPTED &SEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

10.26	10.92	1878.62	1878.62	0.00	1880.20	1.58	2.53	0.28	1876.00
82000.	67669.	13542.	789.	7661.	903.	222.	1364.	415.	1876.00
0.16	8.83	14.99	3.55	0.042	0.035	0.037	0.000	1867.70	6519.73
0.008185	585.	585.	540.	20	13	0	0.00	3146.47	10365.87

1490 NH CARD USED
*SECNO 10.340

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED &SEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 6505.0 10835.0 TYPE= 1 TARGET= -6505.000

CENTERLINE STATION AT 10000

10.34	13.86	1885.86	1885.86	1884.31	1887.17	1.31	3.30	0.03	1882.00
82000.	52257.	16879.	12864.	10133.	998.	1775.	1476.	452.	1880.00
0.18	5.16	16.92	7.25	0.055	0.035	0.037	0.000	1872.00	6505.00
0.006694	450.	450.	420.	20	15	0	0.00	4144.37	10794.81

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
&	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOP&ID	ENDST

FLOW DISTRIBUTION FOR SECNO= 10.34 C&SEL= 1885.86

STA=	6505.	6545.	6660.	7670.	8170.	8500.	8790.	8875.	8975.	9185.	9635.	9775.	9965.
PER Q=	4.3	3.5	3.5	3.5	3.1	4.1	3.1	3.7	7.1	16.4	5.1	6.4	
AREA=	299.6	389.5	1441.6	1222.3	562.4	1120.8	345.5	406.5	811.6	1829.2	569.1	734.3	
VEL=	11.8	7.3	2.0	2.3	2.6	3.0	7.4	7.4	7.1	7.4	7.4	7.1	

STA= 9965. 10055. 10190. 10310. 10675. 10795.

PER Q=	20.6	7.6	4.6	3.4	0.2
AREA=	997.3	656.8	463.8	597.7	63.8
VEL=	16.9	5.4	3.1	4.7	2.2


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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  31,32,33,34,35
  MODIFICATION -  5.,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.470	0.00	0.00	0.00	1842.30	240000.00	1852.20	0.00	1852.59	22.75	7.98	7994.17	5031.95
	9.470	0.00	0.00	0.00	1842.30	84000.00	1853.37	0.00	1853.75	28.35	10.16	23213.65	15774.85
•	9.590	670.00	0.00	0.00	1842.00	23000.00	1855.00	1855.00	1855.92	41.08	10.85	5281.94	3588.39
*	9.590	670.00	0.00	0.00	1842.00	82000.00	1857.10	1857.10	1858.44	69.24	16.40	14153.05	9854.66
*	9.750	810.00	0.00	0.00	1846.00	23000.00	1859.75	1859.75	1860.61	31.98	12.31	5635.15	4067.32
	9.750	810.00	0.00	0.00	1846.00	82000.00	1862.05	0.00	1862.93	43.99	16.26	16049.33	12362.81
*	9.880	680.00	0.00	0.00	1847.30	23000.00	1863.75	1863.75	1864.71	33.94	10.42	5186.86	3947.85
*	9.880	680.00	0.00	0.00	1847.30	82000.00	1865.95	1865.95	1867.44	64.41	16.07	12721.29	10217.35
•	10.010	735.00	1868.80	1868.80	1856.00	23000.00	1868.64	1868.64	1869.46	106.51	6.58	3152.55	2228.60
	10.010	735.00	1868.80	1868.80	1856.00	82000.00	1871.30	0.00	1871.99	72.67	5.98	12617.44	9619.34
	10.150	690.00	0.00	0.00	1860.00	23000.00	1872.71	0.00	1873.04	21.76	5.64	5013.48	4930.84
	10.150	690.00	0.00	0.00	1860.00	82000.00	1875.34	0.00	1875.97	33.87	8.55	13042.74	14089.56
*	10.260	585.00	0.00	0.00	1867.70	23000.00	1878.07	1878.07	1879.14	50.86	11.25	3365.80	3225.07
•	10.260	585.00	0.00	0.00	1867.70	82000.00	1878.62	1878.62	1880.20	81.85	14.99	8785.95	9063.74
*	10.340	450.00	0.00	0.00	1872.00	23000.00	1884.01	1884.01	1884.92	37.93	11.27	5065.70	3734.35
*	10.340	450.00	0.00	0.00	1872.00	82000.00	1885.86	1885.86	1887.17	66.94	16.92	12905.50	10022.41

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	9.470	240000.00	1852.20	0.00	0.00	0.00	3581.00	0.00
	9.470	84000.00	1853.37	1.17	0.00	0.00	6726.05	0.00
*	9.590	23000.00	1855.00	0.00	2.80	0.00	2989.92	670.00
*	9.590	82000.00	1857.10	2.10	3.73	0.00	4525.56	670.00

*	9.750	23000.00	1859.75	0.00	4.75	0.00	3128.96	810.00
	9.750	82000.00	1862.05	2.29	4.95	0.00	4429.31	810.00
*	9.880	23000.00	1863.75	0.00	3.99	0.00	3072.22	680.00
*	9.880	82000.00	1865.95	2.20	3.91	0.00	3679.47	680.00
*	10.010	23000.00	1868.64	0.00	4.89	0.00	2304.17	735.00
	10.010	82000.00	1871.30	2.66	5.34	0.00	4337.48	735.00
	10.150	23000.00	1872.71	0.00	4.07	0.00	2060.45	690.00
	10.150	82000.00	1875.34	2.63	4.04	0.00	3847.37	690.00
*	10.260	23000.00	1878.07	0.00	5.36	0.00	2050.21	585.00
*	10.260	82000.00	1878.62	0.56	3.29	0.00	3146.47	585.00
*	10.340	23000.00	1884.01	0.00	5.94	0.00	2225.19	450.00
*	10.340	82000.00	1885.86	1.86	7.24	1.86	4144.37	450.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 9.590 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.590 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.590 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 9.590 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.590 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.590 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 9.750 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.750 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.750 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 9.880 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.880 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.880 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 9.880 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.880 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.010 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.010 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.010 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.260 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.260 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.260 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 10.260 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.260 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.260 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.340 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 10.340 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.340 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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ECF..
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108

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   7-FEB-88 TIME   20:40:52          *
 *************************************************
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*************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************


 SPLIT FLOW BEING PERFORMED

 SF

 TN         25-YEAR LOB BREAKOUT U/S OF CHEYENNE AVENUE
 NS      8   10.01    10.15     9.59   0.100  0.0085
 NG      0 1868.9       60  1868.0     130  1870.0      135  1876.0      630  1878.0
 NG    635 1872.0      785  1874.0     925  1874.3
1
   7-FEB-88     20:40:52                                                    PAGE     2

 C
 T1         CCRFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         LAS VEGAS WASH - 25-YEAR
 J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.        2.         0.         0.   0.006000       0.00       0.0        0.        0.000      0.000
 J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
      -1.000     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
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	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	1.000	6200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6215.000	0.130	7580.000	0.040	8108.000	0.035	8229.000	0.100
NH	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8078.000	8291.000	0.000	0.000
		SECNO=River Mileage (above FIS xM)								
		Centerline Station at 8172								
X1	9.590	56.000	8108.000	8229.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1856.000	4780.000	1856.000	5140.000	1854.000	5400.000	1852.100	5585.000	1852.300	6215.000
GR	1854.000	6270.000	1854.000	6385.000	1852.900	6465.000	1854.000	6510.000	1854.000	6845.000
GR	1852.500	6915.000	1854.000	6995.000	1854.000	7580.000	1853.500	7705.000	1854.000	7740.000
GR	1854.000	7835.000	1854.600	8009.000	1854.600	8078.000	1854.100	8108.000	1853.900	8119.000
GR	1844.300	8145.000	1843.700	8155.000	1842.700	8168.000	1842.000	8172.000	1842.800	8178.000
GR	1842.700	8187.000	1843.800	8200.000	1853.600	8229.000	1853.400	8260.000	1855.700	8251.000
GR	1854.900	8307.000	1854.600	8363.000	1854.400	8403.000	1854.600	8448.000	1855.200	8469.000
GR	1854.300	8505.000	1854.600	8538.000	1854.800	8555.000	1854.800	8588.000	1853.800	8714.000
GR	1854.400	8739.000	1854.300	8826.000	1853.400	8867.000	1855.400	8899.000	1857.600	8925.000
GR	1858.100	8950.000	1856.600	9015.000	1856.600	9037.000	1856.600	9061.000	1856.600	9072.000
GR	1858.000	9345.000	1856.000	9425.000	1855.000	9540.000	1856.000	9565.000	1858.000	9615.000
GR	1860.000	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	9785.000	0.130	9540.000	0.035	9615.000	0.130	9940.000	0.035
NH	10115.000	0.130	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	9.750	41.000	9975.000	10025.000	810.000	890.000	910.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9900.000	1860.600	10135.000	1860.300	0.000	0.000	0.000
GR	1864.000	6460.000	1862.000	6625.000	1860.000	6695.000	1858.000	6860.000	1859.500	7600.000
GR	1858.000	8070.000	1856.000	8120.000	1856.000	8215.000	1858.000	8275.000	1858.000	8785.000
GR	1858.000	9355.000	1856.800	9415.000	1858.000	9440.000	1858.800	9505.000	1858.000	9540.000
GR	1852.000	9562.000	1849.600	9575.000	1852.000	9587.000	1860.000	9615.000	1960.000	9745.000
GR	1859.000	9805.000	1960.000	9830.000	1860.600	9900.000	1860.000	9940.000	1850.000	9975.000
GR	1846.000	10000.000	1950.000	10025.000	1858.000	10050.000	1860.000	10115.000	1860.300	10135.000
GR	1860.000	10155.000	1955.300	10200.000	1858.000	10365.000	1860.000	10395.000	1962.000	10520.000
GR	1860.000	10780.000	1858.000	10815.000	1859.000	10945.000	1860.000	11040.000	1862.000	11050.000
GR	1864.000	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NH	8.000	0.040	2572.000	0.130	3143.000	0.035	3232.000	0.130	3860.000	0.035
NH	3999.000	0.130	4420.000	0.050	4910.000	0.130	5275.000	0.000	0.000	0.000
		Centerline Station at 3935								
X1	9.880	89.000	3860.000	3999.000	680.000	680.000	680.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	3931.000	1863.400	3939.000	1864.700	0.000	0.000	0.000
GR	1883.400	668.000	1870.600	713.000	1863.000	746.000	1863.000	816.000	1862.500	851.000
GR	1862.300	908.000	1963.300	952.000	1863.200	981.000	1863.200	1017.000	1863.400	1050.000
GR	1862.300	1096.000	1862.600	1125.000	1862.100	1160.000	1862.900	1234.000	1863.700	1302.000
GR	1863.400	1385.000	1963.800	1461.000	1861.900	1533.000	1861.100	1607.000	1861.500	1657.000
GR	1861.500	1773.000	1862.600	1858.000	1862.800	1933.000	1862.500	2021.000	1863.200	2088.000
GR	1861.900	2185.000	1862.800	2245.000	1862.900	2295.000	1863.300	2322.000	1863.300	2379.000
GR	1863.400	2451.000	1862.800	2523.000	1861.200	2564.000	1862.700	2572.000	1862.400	2604.000
GR	1862.300	2655.000	1962.700	2710.000	1862.100	2745.000	1861.200	2797.000	1861.500	2846.000
GR	1864.000	2879.000	1862.400	2947.000	1860.000	2978.000	1860.200	3004.000	1859.900	3027.000
GR	1860.700	3045.000	1862.400	3120.000	1862.000	3143.000	1856.500	3155.000	1852.800	3164.000
GR	1852.200	3170.000	1852.300	3175.000	1863.600	3194.000	1863.900	3232.000	1863.900	3277.000
GR	1862.300	3305.000	1962.200	3344.000	1863.900	3423.000	1863.900	3491.000	1862.700	3557.000
GR	1862.200	3574.000	1962.200	3616.000	1861.700	3666.000	1861.600	3704.000	1861.600	3731.000
GR	1861.200	3744.000	1862.900	3784.000	1863.400	3831.000	1862.600	3860.000	1859.700	3886.000
GR	1851.000	3892.000	1849.200	3910.000	1847.300	3935.000	1852.500	3958.000	1861.900	3976.000
GR	1864.700	3999.000	1864.000	4029.000	1863.100	4086.000	1861.400	4108.000	1861.700	4127.000
GR	1860.000	4144.000	1863.900	4177.000	1866.200	4263.000	1866.000	4360.000	1864.400	4420.000
GR	1866.000	4530.000	1867.200	4910.000	1868.000	5020.000	1870.000	5275.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000	
NH	5.000	0.037	5615.000	0.130	7040.000	0.037	8560.000	0.035	8660.000	0.040	
NH	9520.000	0.130	9775.000	0.035	10064.000	0.040	10295.000	0.130	11145.000	0.000	
ET	0.000	7.100	0.000	0.000	0.000	0.000	9544.000	10150.000	0.000	0.000	

****** Cheyenne Avenue ******
Single Cross Section Normal Bridge
Centerline Station at 10000
2* Debris Load

X1	10.010	65.000	9944.000	10064.000	605.000	795.000	735.000	0.000	0.000	0.000
RT	4.000	9944.000	1868.900	1868.900	9968.200	1868.200	1866.800	10031.700	1868.800	1866.800
BT	10064.000	1868.900	1868.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1878.000	5330.000	1876.000	5505.000	1876.000	5615.000	1876.000	5685.000	1874.000	5755.000
GR	1872.000	6155.000	1870.000	6445.000	1868.000	6775.000	1866.000	6860.000	1865.800	6900.000
GR	1866.000	6950.000	1867.200	6995.000	1866.000	7040.000	1866.000	7085.000	1868.000	7120.000
GR	1869.100	7150.000	1868.000	7165.000	1866.000	7175.000	1864.000	7195.000	1864.000	7225.000
GR	1866.000	7250.000	1868.000	7260.000	1870.000	7600.000	1870.000	7925.000	1868.000	8220.000
GR	1867.600	8560.000	1960.000	8570.000	1858.000	8600.000	1858.100	8610.000	1868.000	8660.000
GR	1869.300	8750.000	1868.000	9105.000	1867.500	9350.000	1868.000	9520.000	1868.000	9775.000
GR	1867.500	9850.000	1868.900	9944.000	1866.800	9968.200	1859.600	9968.300	1859.600	9975.700
GR	1866.300	9975.800	1866.800	9982.200	1859.600	9982.300	1859.600	9589.700	1866.800	9985.800
GR	1866.300	9996.000	1859.600	9996.100	1859.600	10003.700	1866.800	10003.800	1866.800	10010.200
GR	1859.600	10010.300	1859.600	10017.600	1866.800	10017.700	1865.800	10024.100	1859.600	10024.200
GR	1859.600	10031.600	1866.800	10031.700	1868.900	10064.000	1870.000	10295.000	1870.000	10575.000
GR	1872.000	10605.000	1874.000	10625.000	1874.000	10965.000	1876.000	11135.000	1878.000	11145.000

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NH	5.000	0.037	8670.000	0.100	9465.000	0.040	9940.000	0.035	10050.000	0.040
NH	10590.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9605.000	10160.000	0.000	0.000

Centerline Station at 10000

X1	10.150	49.000	9940.000	10050.000	845.000	535.000	690.000	0.000	0.000	0.000
GR	1878.000	6160.000	1876.000	6400.000	1874.000	6420.000	1874.000	6610.000	1872.000	6705.000
GR	1870.000	6900.000	1868.000	7000.000	1868.000	7360.000	1870.000	7480.000	1872.000	7610.000
GR	1871.700	7910.000	1870.000	8075.000	1860.000	8100.000	1860.000	8110.000	1870.000	8145.000
GR	1872.000	8165.000	1872.000	8240.000	1874.000	8460.000	1874.000	8570.000	1872.000	8605.000
GR	1874.000	8670.000	1874.200	8860.000	1874.000	9015.000	1872.200	9085.000	1874.000	9135.000
GR	1874.000	9325.000	1872.000	9360.000	1872.000	9465.000	1874.000	9530.000	1874.300	9605.000
GR	1874.000	9695.000	1872.000	9810.000	1870.000	9820.000	1870.000	9835.000	1872.000	9850.000
GR	1874.000	9940.000	1872.000	9960.000	1864.000	9990.000	1864.000	10005.000	1866.000	10015.000
GR	1872.000	10040.000	1874.000	10050.000	1876.000	10160.000	1876.000	10185.000	1874.000	10215.000
GR	1874.000	10295.000	1876.000	10340.000	1876.000	10530.000	1878.000	10590.000	0.000	0.000

NC	0.042	0.037	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	1.000	5300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9567.000	0.000	0.000	0.000

Centerline Station at 10000

X1	10.260	58.000	9965.000	10080.000	585.000	540.000	585.000	0.000	0.000	0.000
GR	1884.000	6005.000	1882.000	6345.000	1880.000	6475.000	1878.000	6540.000	1876.000	6580.000
GR	1874.000	6660.000	1872.300	6760.000	1872.000	6865.000	1872.000	6915.000	1872.400	7095.000
GR	1872.000	7230.000	1872.000	7255.000	1878.000	7275.000	1876.300	7345.000	1876.000	7430.000
GR	1876.000	7530.000	1870.000	7550.000	1868.000	7565.000	1870.000	7580.000	1876.000	7615.000
GR	1874.000	7745.000	1872.000	7755.000	1872.000	7785.000	1874.000	7795.000	1876.000	7810.000
GR	1877.800	7865.000	1876.000	8020.000	1876.000	8055.000	1878.000	8130.000	1878.000	8265.000
GR	1879.000	8550.000	1878.000	8870.000	1876.000	8880.000	1878.000	8895.000	1878.000	8985.000
GR	1879.500	9050.000	1878.000	9240.000	1876.400	9260.000	1878.000	9270.000	1878.000	9540.000
GR	1880.000	9560.000	1880.000	9650.000	1878.000	9725.000	1876.800	9865.000	1876.000	9965.000
GR	1868.000	9995.000	1867.700	10000.000	1868.000	10005.000	1870.000	10015.000	1870.000	10060.000
GR	1876.000	10080.000	1878.000	10135.000	1878.000	10330.000	1880.000	10445.000	1882.000	10550.000
GR	1884.000	10640.000	1884.000	10900.000	1886.000	10995.000	0.000	0.000	0.000	0.000

NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9965.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9965.000	0.000	0.000	0.000

Centerline Station at 10000

X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1888.300	6015.000	1886.000	6025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.300	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.300	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.300	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.300	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000
GR	1884.300	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.300	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.300	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.300	10675.000	1886.000	10910.000	1888.000	10935.000	0.000	0.000	0.000	0.000
EJ	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.590
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3470 ENCROACHMENT STATIONS= 8078.0 8291.0 TYPE= 1 TARGET= 213.000
SECNO=River Mileage (above FIS xM)
Centerline Station at 8172

9.59	9.16	1851.16	0.00	1851.16	1852.95	1.79	0.00	0.00	1854.10
6200.	0.	6200.	0.	0.	577.	0.	0.	0.	1853.60
0.00	0.00	10.75	0.00	0.040	0.035	0.100	0.000	1842.00	8126.83
0.005985	0.	0.	0.	0	0	19	0.00	54.96	8221.78

3
FLOW DISTRIBUTION FOR SECNO= 9.59 CWSEL= 1851.16

STA= 8127. 8229.
PER Q= 100.0
AREA= 576.9
VEL= 10.7

1490 NH CARD USED
*SECNO 9.750

3470 ENCROACHMENT STATIONS= 9901.0 10135.0 TYPE= 1 TARGET= 235.000
ELENCL= 1860.60 ELENCR= 1860.30
Centerline Station at 10000

9.75	9.66	1855.66	0.00	1855.66	1857.83	2.16	4.76	0.11	1850.00
5410.	352.	4746.	312.	56.	383.	50.	10.	2.	1850.00
0.02	6.26	12.38	6.23	0.035	0.035	0.035	0.000	1846.00	9955.17
0.005725	810.	810.	890.	2	0	0	0.00	87.53	10042.70

3
1490 NH CARD USED
*SECNO 9.880

3301 HV CHANGED MORE THAN HVIAS

3470 ENCROACHMENT STATIONS= 3831.0 3999.0 TYPE= 1 TARGET= 168.000
ELENCL= 1863.40 ELENCR= 1864.70

1

Centerline Station at 3935

9.88	11.93	1859.23	0.00	1859.23	1860.10	0.88	2.15	0.13	1862.60
5410.	0.	5410.	0.	0.	720.	0.	19.	3.	1864.70
0.04	0.00	7.52	0.00	0.035	0.035	0.035	0.000	1847.30	3886.33
0.001996	680.	680.	680.	3	0	0	0.00	84.55	3970.88

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 10.310

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.80 MAX ELLC= 1868.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9944.0 10150.0 TYPE= 1 TARGET= 206.000

**** Cheyenne Avenue ****
Single Cross Section Normal Bridge
Centerline Station at 10000
2* Debris Load

10.01	10.87	1870.47	1870.47	1870.47	1871.84	1.37	3.59	0.25	1868.50
5410.	0.	4565.	845.	0.	469.	113.	30.	6.	1868.90
0.07	0.00	9.74	7.19	0.035	0.035	0.040	0.000	1859.60	9944.00
0.025098	605.	735.	795.	22	10	0	-183.50	206.00	10150.00

1490 NH CARD USED
*SECNO 10.150

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9605.0 10160.0 TYPE= 1 TARGET= 555.000

Centerline Station at 10000

10.15	10.89	1874.89	0.00	1874.89	1875.38	0.48	3.27	0.27	1874.00
6200.	1867.	4311.	22.	626.	673.	22.	46.	11.	1874.00
0.10	2.98	6.40	0.99	0.040	0.035	0.040	0.000	1864.00	9605.00
0.002086	945.	690.	535.	2	0	0	0.00	494.22	10099.22

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9560.0 10995.0 TYPE= 1 TARGET= -9560.000

Centerline Station at 10000

10.26	8.41	1876.11	0.00	1876.11	1877.27	1.16	1.68	0.20	1876.00
5300.	0.	5300.	0.	1.	614.	0.	59.	16.	1876.00
0.12	0.33	8.64	0.38	0.042	0.035	0.037	0.000	1867.70	9951.89
0.004550	585.	585.	540.	2	0	0	0.00	130.99	10082.88

1490 NH CARD USED
*SECNO 10.340

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9965.0 10835.0 TYPE= 1 TARGET= -9965.000

Centerline Station at 10000

10.34	7.18	1879.18	1879.18	1879.18	1881.79	2.60	3.01	0.43	1882.00		
5300.	0.	5300.	0.	0.	409.	0.	65.	17.	1880.00		
0.13	0.00	12.94	0.00	0.042	0.035	0.037	0.000	1872.00	9973.45		
0.010762	450.	450.	420.	20	12	0	0.00	79.00	10052.45		

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1879.18

STA= 9973. 10055.
PER Q= 100.0
AREA= 409.5
VEL= 12.9

TN 25-YEAR LOB BREAKOUT U/S OF CHEYENNE AVENUE

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
453.6	1.74	2.76	1.07	925.0	422.2

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
790.38	790.32	0.01	790.38	790.32	0.01	5	1870.472	1874.895	10.010	10.150

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.590	0.00	0.00	0.00	1842.00	6200.00	1851.16	0.00	1852.95	59.85	10.75	576.95	801.39
	9.750	810.00	0.00	0.00	1846.00	5409.62	1855.66	0.00	1857.83	57.25	12.38	489.50	714.94
	9.880	680.00	0.00	0.00	1847.30	5409.62	1855.23	0.00	1860.10	19.96	7.52	719.72	1210.76
*	10.010	735.00	1868.80	1858.90	1859.60	5409.62	1870.47	1870.47	1871.84	250.98	9.74	586.11	341.46
	10.150	690.00	0.00	0.00	1864.00	6200.00	1874.89	0.00	1875.38	20.86	6.40	1321.75	1357.60
	10.260	585.00	0.00	0.00	1867.70	5300.00	1876.11	0.00	1877.27	45.50	8.64	614.40	785.74
*	10.340	450.00	0.00	0.00	1872.00	5300.00	1879.18	1879.18	1881.79	107.62	12.94	409.47	510.89

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.590	6200.00	1851.16	0.00	0.00	0.00	94.96	0.00
9.750	5409.62	1855.66	0.00	4.50	0.00	87.53	810.00
9.880	5409.62	1859.23	0.00	3.56	0.00	84.55	680.00
* 10.010	5409.62	1870.47	0.00	11.25	0.00	206.00	735.00
10.150	6200.00	1874.89	0.00	4.42	0.00	494.22	690.00
10.260	5300.00	1876.11	0.00	1.21	0.00	130.99	585.00
* 10.340	5300.00	1879.18	0.00	3.08	0.00	79.00	450.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.010 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.010 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.010 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.340 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

1
7-FEB-88 20:41:18 PAGE 1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

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SF
TN          25-YEAR LOB BREAKOUT U/S OF CHEYENNE AVENUE
NS      8    10.01    10.15     9.59    0.100   0.0085
NG      0  1868.9       60  1868.0      130  1870.0      135  1876.0      630  1878.0
NG    635  1872.0      735  1874.0      925  1874.3
SE
CO
CO
CO
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GR1863.4  001355  1863.8  001461  1851.9  001533  1861.1  001607  1861.5  001697
GR1861.5  001773  1862.6  001858  1852.8  001933  1862.5  002021  1863.2  002088
GR1861.9  002135  1862.8  002245  1852.9  002295  1863.3  002322  1863.3  002379
GR1863.4  002451  1862.8  002523  1851.2  002564  1862.7  002572  1862.4  002604
GR1862.3  002655  1862.7  002710  1852.1  002745  1861.2  002797  1861.5  002846
GR1864.0  002879  1862.4  002947  1850.0  002978  1860.2  003004  1859.9  003027
GR1860.7  003045  1862.4  003120  1852.0  003143  1856.5  003155  1852.8  003164
GR1852.2  003170  1852.3  003175  1863.6  003194  1863.9  003232  1863.9  003277
GR1862.3  003305  1862.2  003344  1863.9  003423  1863.9  003491  1862.7  003557
GR1862.2  003574  1862.2  003615  1851.7  003666  1861.6  003704  1861.6  003731
GR1861.2  003744  1862.9  003784  1863.4  003831  1862.6  003860  1859.7  003886
GR1851.0  003892  1849.2  003910  1847.3  003935  1852.5  003958  1861.9  003976
GR1864.7  003999  1864.0  004029  1853.1  004086  1861.4  004108  1861.7  004127
GR1860.9  004144  1863.9  004177  1866.2  004263  1866.0     4360  1864.4     4420
GR1866.0     4530  1867.2     4910  1868.0     5020  1870.0     5275
VC                    0.3           0.5
NH        9  0.037     5615     0.13     7040  0.037     8560  0.035     8660  0.040
NH     9520     0.13     9775  0.035    10064  0.040    10295  0.13    11145
ET              7.1                             9944    10150
K1 10.01       65     9944    10064      605      795      735
BT        4  9944  1868.9  1869.9  9958.2  1868.8  1866.8 10031.7  1868.8  1866.8
RT 10064  1868.9  1868.9
GR1878.0     5330  1876.0     5505  1876.1     5615  1876.0     5685  1874.0     5795
GR1872.0     6155  1870.0     6445  1868.0     6775  1866.0     6860  1865.8     6905
GR1866.0     6950  1867.2     6955  1856.0     7040  1866.0     7085  1868.0     7120
GR1869.1     7150  1868.0     7165  1856.0     7175  1864.0     7195  1864.0     7225
GR1866.0     7250  1868.0     7260  1870.0     7600  1870.0     7925  1868.0     8220
GR1867.6     8560  1868.0     8570  1858.0     8600  1858.1     8610  1868.0     8660
GR1869.8     9750  1868.0     9105  1867.5     9350  1868.0     9520  1868.0     9775
GR1867.5     9850  1868.9     9944  1856.8  9968.2  1859.6  9968.3  1859.6  9975.7
GR1866.8  9975.8  1866.8  9982.2  1859.6  9982.3  1859.6  9989.7  1866.8  9985.8
GR1866.8  9996.0  1859.6  9996.1  1859.6 10003.7  1866.8 10003.8  1866.8 10010.2
GR1859.6 10010.3  1859.6 10017.6  1856.8 10017.7  1866.8 10024.1  1859.6 10024.2
GR1859.6 10031.6  1866.8 10031.7  1868.9    10064  1870.0    10295  1870.0    10575
GR1872.0    10605  1874.0    10625  1874.0    10965  1876.0    11135  1878.0    11145
NH        5  0.037     8670     0.10     9465  0.040     9940  0.035    10050  0.040
NH 10590
ET              7.1                             9605    10160
K1 10.15       49     9940    10050      845      535      690
GR1878.0     6160  1876.0     6400  1874.0     6420  1874.0     6610  1872.0     6705
GR1870.0     6930  1868.0     7000  1868.0     7360  1870.0     7480  1872.0     7610
GR1871.7     7910  1870.0     8075  1850.0     8100  1860.0     8110  1870.0     8145
GR1872.0     8165  1872.0     8240  1874.0     8460  1874.0     8570  1872.0     8605
GR1874.0     8670  1874.2     8860  1874.0     9015  1872.2     9035  1874.0     9135
GR1874.0     9325  1872.0     9360  1872.0     9465  1874.0     9530  1874.3     9605
GR1874.0     9695  1872.0     9810  1870.0     9820  1870.0     9835  1872.0     9850
GR1874.0     9940  1872.0     9960  1864.0     9990  1864.0    10015  1866.0    10015
GR1872.0    10040  1874.0    10050  1876.0    10160  1876.0    10135  1874.0    10215
GR1874.0    10295  1876.0    10340  1876.0    10530  1878.0    10590
NC 0.042  0.037  0.035    0.1    0.3
DT        1  5300
ET              7.1                             9560
K1 10.26       58     9965    10060      585      540      585
GR1884.0     6005  1882.0     6345  1880.0     6475  1878.0     6540  1876.0     6580
GR1874.0     6660  1872.3     6760  1872.0     6865  1872.0     6915  1872.4     7095
GR1872.0     7230  1872.0     7255  1878.0     7275  1876.3     7345  1876.0     7430
GR1876.0     7530  1870.0     7550  1868.0     7565  1870.0     7580  1876.0     7615
GR1874.0     7745  1872.0     7755  1872.0     7785  1874.0     7795  1876.0     7810
GR1877.8     7965  1876.0     8020  1876.0     8055  1878.0     8130  1878.0     8265
GR1879.8     8550  1878.0     8970  1876.0     8880  1878.0     8895  1878.0     8985
GR1879.5     9050  1878.0     9240  1876.4     9260  1878.0     9270  1878.0     9540
GR1880.0     9560  1880.0     9650  1878.0     9725  1876.8     9855  1876.0     9965
GR1868.0     9995  1867.7    10000  1868.0    10005  1870.0    10015  1870.0    10060
GR1876.0    10080  1878.0    10135  1878.0    10330  1880.0    10445  1882.0    10550
GR1884.0    10640  1884.0    10900  1886.0    10995
NH        5  0.04     6660     0.10     8790  0.042     9965  0.035    10055  0.037
NH 10835
ET              7.1                             9965
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K1 10.34        53      9965    10055      450      420      450
K2                                                              15
GR1888.0    6015  1886.0    6025  1884.0    6075  1882.0    6295  1880.0    6315
GR1878.9    6420  1880.0    6480  1883.0    6505  1880.0    6515  1876.0    6535
GR1876.0    6545  1882.0    6560  1884.0    6660  1886.0    6925  1884.0    7025
GR1884.0    7110  1886.0    7210  1886.0    7320  1884.0    7380  1884.0    7445
GR1882.0    7460  1881.3    7480  1882.0    7505  1884.0    7670  1882.0    7685
GR1882.0    7775  1884.0    7905  1884.2    7900  1884.0    8035  1882.7    8100
GR1884.0    8170  1884.3    8215  1884.0    8270  1882.0    8390  1881.6    8450
GR1882.0    8500  1882.0    8600  1882.0    8790  1881.6    8875  1882.0    8975
GR1882.0    9135  1881.6    9635  1882.0    9775  1882.0    9965  1872.0    9995
GR1872.0   10330  1880.0   10055  1882.0   10190  1882.0   10310  1884.0   10350
GR1884.8   10675  1886.0   10810  1888.0   10835
EJ


ER
EOF..
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SF
TN          LOB BREAKOUT D/S OF I-15
NS       4   10.55  10.665    10.34    0.037   0.0040
NG       0 1895.9        10  1896.0       260  1898.0      500  1899.0
E
C
C       31
C    10.34      SECNO=River Mileage above Advanced Wastewater Treatment Plant
C    10.34      Centerline Station at 10000
C    10.46      Centerline Station at 10000
C    10.49      Centerline Station at 5188
C    10.54      Centerline Station at 10000
C    10.55      **** Civic Center Drive (new structure) ****
C    10.55      Normal Bridge
C    10.55      1* Debris Load
C    10.55      Centerline Station at 10300
C    10.62      Centerline Station at 10000
C   10.627      Centerline Station at 10000
C   10.634      Centerline Station at 10000
C   10.642      Centerline Station at 10000
C   10.649      Centerline Station at 10000
C   10.650      Centerline Station at 10000
C   10.657      Centerline Station at 10000
C   10.658      **** Drop Structure ****
C   10.658      Centerline Station at 10300
C   10.665      Centerline Station at 10000
C   10.686      Centerline Station at 10000
C   10.686      500-Year LOB Breakout of 5,000 cfs d/s of I-15 (rejoins main
C   10.686        channel at x10.34): breakout flow determined by a flow
C   10.686        distribution at I-15
C   10.697      **** I-15 North ****
C   10.697      2* Debris Load
C   10.697      Centerline Station at 10300
C    10.70      Centerline Station at 10000
C    10.71      **** I-15 South ****
C    10.71      2* Debris Load
C    10.71      Centerline Station at 10300
C    10.74      Centerline Station at 2355
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 100-YEAR
J1                    2                -1
J2      -1                -1
J3     150
QT       1   82000
NC                                  0.1      0.3
NH       5    0.04     6660      0.10     8790   0.042     9965   0.035    10055   0.037
NH   10835
X1   10.34      53     9965     10055      450     420      450                            15
X2
GR1888.0    6015  1886.0    6025  1884.0    6075  1882.0    6295  1880.0    6315
GR1878.9    6420  1880.0    6480  1883.0    6505  1880.0    6515  1876.0    6535
GR1876.0    6545  1882.0    6569  1884.0    6660  1886.0    6925  1884.0    7025
GR1884.0    7110  1886.0    7210  1886.0    7320  1884.0    7380  1884.0    7445
GR1882.0    7460  1881.3    7480  1882.0    7505  1884.0    7670  1882.0    7685
GR1882.0    7775  1884.0    7805  1884.2    7900  1884.0    8035  1882.7    8100
GR1884.0    8170  1884.3    8215  1884.0    8270  1882.0    8390  1881.6    8450
GR1882.0    8500  1882.0    8600  1882.0    8790  1881.6    8975  1882.0    8975
GR1882.0    9185  1881.6    9635  1882.0    9775  1882.0    9965  1872.0    9995
GR1872.0   10030  1880.0   10055  1882.0   10190  1882.0   10310  1884.0   10350
GR1884.8   10675  1886.0   10819  1888.0   10835
QT       1   77000
NH       4    0.10     8895    0.042     9905   0.035    10020   0.037    10575
X1   10.46      28     9905     10020      600     700      600
X2
```

```
K2                                                                      15
GR1890.0    7310  1886.0    7375  1886.0    7420  1888.0    7445  1888.0    7680
GR1888.0    8035  1888.0    8515  1887.2    8750  1886.0    8925  1886.0    8975
GR1886.6    9215  1886.0    9390  1884.0    9450  1883.3    9695  1884.0    9815
GR1885.1    9870  1884.0    9960  1882.0    9900  1880.0    9905  1878.0    9970
GR1876.1   10000  1878.0   10010  1880.0   10020  1882.0   10075  1884.0   10155
GR1886.0   10275  1888.0   10425  1890.0   10575
NC 0.042    0.037   0.035
X1 10.49       27    9975   10015     250     140     170
K2                                                                      15
GR1892.0    7615  1886.0    7635  1886.0    7650  1888.0    7680  1890.0    7890
GR1890.6    8075  1890.0    8505  1888.0    8975  1888.0    9215  1886.0    9420
GR1884.0    9640  1884.0    9960  1884.1    9890  1884.0    9925  1880.0    9935
GR1880.0    9875  1878.0    9995  1877.0   10000  1878.0   10005  1880.0   10015
GR1884.0   10035  1884.0   10170  1886.0   10260  1886.0   10325  1888.0   10360
GR1890.0   10430  1892.0   10705
NC                  0.3       0.5
X1 10.54       33    9934   10077     270.    220.     260.
BT      9    9450  1890.7  1890.7    9480  1891.6  1890.0    9520  1890.0  1888.0
BT   9700  1888.5  1886.0    9934  1887.7  1886.0  9938.9  1887.7  1885.7 10061.1
BT1888.8  1885.7   10077  1889.0  1888.0   10225  1890.0  1890.0
GR1894.0    7630  1892.0    7735  1890.0    7800  1888.0  7825.0  1888.0    7875
GR1890.0    7950  1892.0    7990  1892.0    8410  1890.0    8540  1890.0    9380
GR1890.7    9450  1890.     9480  1888.     9520  1886.     9700  1886.0    9934
GR1885.7  9939.9  1881.9    9939  1877.8    9956  1877.8  9974.5  1885.7  9974.6
GR1885.7    9977.5  1877.8    9977.6  1877.8  10022.5  1885.7  10022.6  1885.7  10025.3
GR1877.8  10025.4  1877.8  10043.8  1881.9   10061  1885.7  10061.1  1888.0   10077
GR 1890.    10225  1892.   10680  1894.0   11050
X1 10.55       37    9928   10075     82.     82.     82.
BT      8    9525  1890.0  1890.0    9565  1888.8  1888.0    9825  1888.0  1886.1
BT   9928  1887.2  1886.0  9938.9  1887.7  1885.9 10061.1  1888.8  1885.9   10075
BT1889.0  1888.0   10210  1890.0  1890.0
GR1896.0    7505  1894.0    7645  1892.0    7735  1890.0    7780  1888.0    7805
GR1888.0    7835  1890.0    7890  1892.0    7980  1893.1    8260  1892.0    8595
GR1890.0    9810  1890.0    9210  1892.0    9290  1890.0    9345  1890.7    9475
GR 1890.    9505   1888.    9565  1886.1    9825.  1886.0    9928  1885.9  9938.9
GR1882.1    9939  1878.0    9956  1878.0  9974.5  1885.9  9974.6  1885.9  9977.5
GR1878.0  9977.6  1878.0  10022.5  1885.9  10022.6  1885.9  10025.3  1878.0  10025.4
GR1876.0 10043.8  1882.1   10061  1885.9  10061.1  1888.0   10075   1890.   10210
GR 1892.    10555  1894.0   11020
NH      7    0.037    9849   0.035    9966   0.025   10020   0.035   10095   0.037
NH10100      0.10   11100   0.035   11275
X1 10.62       37    9966   10020     320     245     335
K2                                                                      15
GR1898.0    7620  1896.0    7630  1894.0    7665  1892.5    7710  1894.0    7795
GR1894.0    7885  1896.0    7975  1897.3    8035  1896.0    8109  1894.0    8429
GR1893.0    8549  1894.0    9104  1896.0    9139  1896.0    9204  1894.5    9224
GR1893.7    9275  1894.4    9308  1893.7    9359  1894.2    9391  1893.2    9554
GR1892.5    9849  1892.0    9851  1892.0    9936  1891.7    9966  1875.7  9997.5
GR1875.7 10002.5  1884.2   10020  1890.0   10082  1892.0   10095  1894.0   10100
GR1894.0   10255  1896.8   10590  1894.0   10805  1896.0   10815  1896.0   11025
GR1898.0   11100  1900.0   11275
NH      5    0.037    9965   0.025   10020   0.037   10068    0.10   11050   0.037
NH 11390
X110.627       36    9965   10020      62      62      62
GR1898.8    7500  1898.0    7605  1896.0    7635  1894.0    7670  1892.9    7705
GR1894.0    7775  1894.0    7880  1896.0    7975  1897.5    8035  1896.0    8130
GR1894.0    8450  1893.4    8540  1894.0    8970  1896.0    9145  1898.2    9175
GR1896.0    9255  1896.0    9605  1894.0    9695  1892.0    9740  1892.4    9965
GR1875.9  9997.5  1875.9  10002.5  1884.4   10020  1885.0   10050  1886.0   10060
GR1887.0   10068  1890.0   10085  1892.0   10095  1894.0   10105  1894.0   10255
GR1896.0   10540  1896.0   10810  1896.0   11010  1898.0   11050  1900.0   11250
GR1902.0   11390
NH      5    0.037    9935   0.025   10060   0.037   10100    0.10   11045   0.037
NH11375
X110.634       34    9935   10060      38      38      38
GR1898.9    7525  1898.0    7630  1896.0    7660  1894.0    7685  1893.1    7715
GR1894.0    7785  1894.0    7895  1896.0    7990  1897.7    8045  1896.0    8150
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GR1894.0	9470	1893.6	9540	1894.0	9540	1896.0	9160	1898.0	9155
GR1896.0	9605	1894.0	9685	1892.0	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10805
GR1896.0	10960	1898.0	11045	1900.0	11195	1902.0	11375		
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
K110.642	35	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7890	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8825	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9680	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1896.0	10925	1898.0	10975	1900.0	11120	1902.0	11375
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
K110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1836.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
K110.650	34	9956.9	10043.1	1	1	1			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1889.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1889.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
NH 5	0.037	9941	0.018	10066	0.037	10135	0.10	10735	0.037
NH 11355									
K110.657	37	9956.9	10043.1	41	41	41			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1876.9	9957	1876.5	10000	1876.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10068	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
K110.658	37	9956.9	10043.1	1	1	1			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1884.5	9957	1884.5	10000	1884.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10068	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
NH 3	0.037	9940	0.018	10073	0.037	11345			
K110.665	34	9940	10060	40	40	40			
GR1899.2	7480	1898.0	7530	1896.0	7685	1896.0	7935	1898.0	8015
GR1898.9	8065	1898.0	8125	1896.0	8220	1895.5	8510	1896.0	8560
GR1898.0	9205	1900.0	9365	1900.0	9455	1898.0	9545	1896.0	9680
GR1894.0	9750	1892.0	9871	1889.8	9894	1894.3	9940	1894.8	9945
GR1884.8	9965	1884.5	10000	1884.8	10035	1894.8	10055	1894.3	10060
GR1891.3	10067	1890.3	10070	1891.3	10073	1892.0	10130	1894.0	10140
GR1896.0	10640	1898.0	10975	1900.0	11105	1902.0	11345		
QT 1	82000								
NC 0.037	0.037	0.025							
K110.686	23	9940	10060	115	90	113			
K2									15
K3 10									
GR1904.0	6430	1902.0	6820	1900.0	7810	1899.9	7970	1899.7	8085

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GR1899.7    8220   1898.5    8530   1898.6    8800   1898.1    9140   1898.0    9700
GR1898.0    9915   1896.0    9935   1894.3    9940   1895.1    9960   1884.7   10000
GR1885.1   10040   1894.3   10060   1896.0   10070   1898.0   10100   1898.0   10450
GR1900.0   10800   1902.0   11360   1904.0   11500
SB  1.25    1.56      2.8              70.       5   1194.8     1.74   1885.5   1885.1
NC 0.037   0.037    0.035
X110.697       22     9945   10060     55.      55.      55.
X2                     1.     1899.   1898.6                                        15
X3     10                                                1899.0   1899.0
BT     17    6430   1904.0             6820   1902.0              7810   1900.0
BT   7970   1899.9                    8085   1899.7                     1899.7             6530
BT1898.5                 8800   1898.6             9140   1898.1              9695   1899.
BT             9795   1899.                     9895   1899.              9995   1899.
BT 10075   1899.              10320   1900.0             10870   1902.0             11270
BT1904.0
GR1904.0    6430   1902.0    6820   1900.0    7810   1899.9    7570   1899.7    8085
GR1899.7    8220   1898.5    8530   1898.6    8800   1898.1    9140   1898.0    9625
GR1896.0    9935   1890.0    9945   1886.0    9970   1895.5    9975   1885.5   10025
GR1886.0   10035   1890.0   10060   1896.0   10070   1898.0   10090   1900.0   10290
GR1902.0   10850   1904.0   11300
X1 10.70       23     9945   10060     15.      15.      15.
X2                                                                              15
X3     10                                                1898.6   1898.6
GR1906.0    6210   1904.0    6560   1903.9    6805   1902.0    7235   1903.1    7380
GR1903.0    7680   1902.8    8195   1902.     8465   1900.     9160   1898.     9560
GR 1898.    9900   1890.     9945   1886.     9965   1885.5    9975   1885.5   10025
GR 1886.   10035   1890.    10060   1890.    10075   1898.    10145   1900.0   10235
GR1902.0   10805   1904.0   11205   1906.0   11575
SB  1.25    1.56      2.8              70.       5   1194.8     1.74   1885.5   1885.5
X1 10.71                                   60.      60.      60.
X2                     1.     1899.   1898.6                                        15
X3     10                                                1899.0   1899.0
BT     19    6210   1906.0             6560   1904.0              6805   1903.9
BT   7285   1902.0                    7380   1903.1              7680   1903.0             8185
BT1902.8                 8465   1902.0             9045   1901.9              9160   1900.0
BT             9535   1899.6                    9930   1899.5             10100   1899.5
BT 10200   1899.9              10235   1900.0             10400   1900.9             10805
BT1902.0                11205   1904.0             11575   1906.0
EJ


ER
EOF..
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     32
  10.34        SECNO=River Mileage above Advanced Wastewater Treatment Plant
  10.34        Centerline Station at 10000
  10.46        Centerline Station at 10000
  10.49        Centerline Station at 5188
  10.54        Centerline Station at 10000
  10.55        **** Civic Center Drive (new structure) ****
  10.55        Normal Bridge
  10.55        1' Debris Load
  10.55        Centerline Station at 10000
  10.62        Centerline Station at 10000
 10.627        Centerline Station at 10000
 10.634        Centerline Station at 10000
 10.642        Centerline Station at 10000
 10.649        Centerline Station at 10000
 10.650        Centerline Station at 10000
 10.657        Centerline Station at 10000
 10.658        **** Drop Structure ****
 10.658        Centerline Station at 10000
 10.665        Centerline Station at 10000
 10.686        Centerline Station at 10000
 10.686        500-Year LOB Breakout of 6,500 cfs d/s of I-15 (rejoins main
 10.686          channel at x10.34); breakout flow determined by a flow
 10.686          distribution at I-15 (5,000 cfs) & a split flow model of the
 10.686          LOB ridge d/s of I-15 (1,500 cfs)
 10.697        **** I-15 North ****
 10.697        2' Debris Load
 10.697        Centerline Station at 10000
  10.70        Centerline Station at 10000
  10.71        **** I-15 South ****
  10.71        2' Debris Load
  10.71        Centerline Station at 10000
  10.74        Centerline Station at 2355
T1             CCRFCD/COE OVERFLOW STUDY
T2             JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3             LAS VEGAS WASH - 100-YEAR
J1                   2                    -1
J2         1                -1
J3       150
QT         2    23000    82000
NC                                  0.1       0.3
NH         5     0.04     6660      0.10     8790    0.042     9965    0.035    10055    0.037
NH     10835
ET                 7.1       9.1                                7900                6505
X1     10.34        53      9965     10055      450      420      450                              15
X2
GR1888.0     6015  1886.0     6025  1884.0     6075  1882.0     6295  1880.0     6315
GR1878.9     6420  1880.0     6480  1883.0     6505  1880.0     6515  1876.0     6535
GR1876.0     6545  1882.0     6560  1884.0     6660  1886.0     6925  1884.0     7025
GR1884.0     7110  1886.0     7210  1886.0     7320  1884.0     7380  1884.0     7445
GR1882.0     7460  1881.3     7480  1882.0     7505  1884.0     7670  1882.0     7685
GR1882.0     7775  1884.0     7805  1884.2     7900  1884.0     8035  1882.7     8100
GR1884.0     8170  1884.3     8215  1884.0     8270  1882.0     8390  1881.6     8450
GR1882.0     8500  1882.0     8600  1882.3     8790  1881.6     8875  1882.0     8975
GR1882.0     9135  1881.6     9635  1882.0     9775  1882.0     9965  1872.0     9995
GR1672.0    10030  1880.0    10055  1882.0    10190  1882.0    10310  1884.0    10350
GR1884.8    10675  1886.0    10910  1888.0    10835
QT         2    23000    75500
NH         4     0.10     8095     0.042     9905    0.035    10020    0.037    10575
ET                 7.1                                          9515
X1     10.46        28      9905     10020      600      700      600                              15
X2
GR1890.0     7310  1886.0     7375  1886.0     7420  1888.0     7445  1888.0     7680
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GR1888.0     8095  1886.0     8515  1887.2     8750  1896.0     8925  1886.0     8975
GR1886.6     9215  1886.0     9350  1884.0     9450  1883.3     9695  1884.0     9815
GR1885.1     9870  1884.0     9880  1882.0     9900  1880.0     9905  1878.0     9970
GR1876.1    10000  1878.0    10010  1880.0    10020  1882.0    10075  1884.0    10155
GR1886.0    10275  1888.0    10425  1890.0    10575
NC  0.042    0.037   0.035
ET             7.1                                  8075
K1 10.49        27     9975    10015      250      140       170                          15
K2
GR1892.0     7615  1886.0     7635  1886.0     7650  1888.0     7680  1890.0     7890
GR1890.6     8075  1890.0     8505  1888.0     8975  1888.0     9215  1886.0     9420
GR1884.0     9640  1884.0     9860  1884.1     9890  1884.0     9925  1880.0     9935
GR1880.0     9975  1878.0     9995  1877.0    10000  1878.0    10005  1880.0    10015
GR1884.0    10035  1884.0    10170  1886.0    10260  1886.0    10325  1888.0    10360
GR1890.0    10430  1892.0    10705
NC                             0.3    0.5
ET             7.1                                  8410
K1 10.54        33     9934    10077      270.     220.      260.
BT     9     9450  1890.7     1890.7     9480  1891.6     1890.0     9520  1890.0     1888.0
BT  9700  1888.5     1886.0     9934  1887.7     1886.0     9938.9  1887.7     1885.7 10061.1
BT1888.8  1885.7    10077     1888.0     1888.0    10225     1890.0     1890.0
GR1894.0     7630  1892.0     7735  1890.0     7800  1888.0     7825.0  1888.0     7875
GR1890.0     7950  1892.0     7950  1892.0     8410  1890.0     8940  1890.0     9380
GR1890.7     9450   1890.     9480   1888.     9520   1886.     9700  1886.0     9934
GR1885.7     9938.9  1881.9     9939  1877.8     9956  1877.8     9974.5  1885.7     9974.6
GR1885.7     9977.5  1877.8     9977.6  1877.8  10022.5  1885.7  10022.6  1885.7  10025.3
GR1877.8    10025.4  1877.8    10043.8  1881.9    10061  1885.7  10061.1  1888.0    10077
GR  1890.    10225   1892.     10680  1894.0    11050
ET             7.1                                  8260
X1 10.55        38     9928    10075       82.      82.       82.
BT     8     9505  1890.0     1890.0     9565  1888.8     1888.0     9825  1888.0     1886.1
BT  9928  1887.2     1886.0     9938.9  1887.7     1885.9  10061.1  1888.8     1885.9    10075
BT1889.0  1888.0    10210     1890.0     1890.0
GR1896.0     7515  1894.0     7645  1892.0     7735  1890.0     7780  1888.0     7805
GR1888.0     7835  1890.0     7890  1892.0     7980  1893.1     8260  1892.0     8595
GR1890.0     8910  1890.0     9210  1892.0     9290  1890.0     9345  1890.7     9475
GR 1890.     9515   1888.     9565  1886.1     9825.  1886.0     9928  1885.9     9938.9
GR1882.1     9939  1878.0     9956  1878.0     9974.5  1885.9     9974.6  1885.9     9977.5
GR1878.0     9977.6  1878.0  10022.5  1885.9  10022.6  1885.9  10025.3  1878.0  10025.4
GR1878.0    10043.8  1882.1    10061  1885.9  10061.1  1888.0    10075   1890.     10210
GR 1892.     10665  1894.0    11030  1896.0    11380
NH       7     0.037     9949     0.035     9966     0.025     10020     0.035     10095     0.037
NH10100        0.10    11100     0.035    11275
ET             7.1                                  8035
X1 10.62        35     9966    10020      320      245       335                          15
X2
GR1898.0     7620  1896.0     7630  1894.0     7665  1892.5     7710  1894.0     7795
GR1894.0     7835  1896.0     7975  1897.3     8035  1896.0     8109  1894.0     8429
GR1893.0     8549  1894.0     9104  1896.0     9139  1896.0     9204  1894.5     9224
GR1893.7     9275  1894.4     9308  1893.7     9359  1894.2     9391  1893.2     9554
GR1892.5     9849  1892.0     9891  1892.0     9936  1891.7     9966  1875.7     9997.5
GR1875.7    10002.5  1884.2    10020  1890.0    10082  1892.0    10095  1894.0    10100
GR1894.0    10255  1896.8    10590  1896.0    10805  1898.0    11110  1900.0    11275
NH       5     0.037     9965     0.025    10020     0.037     10068     0.10     11050     0.037
NH 11390
ET             7.1                                  8035
X110.627        35     9965    10020       62       62        62
GR1898.8     7500  1898.0     7605  1896.0     7635  1894.0     7670  1892.9     7705
GR1894.0     7775  1894.0     7880  1896.0     7975  1897.5     8035  1896.0     8130
GR1894.0     8450  1893.4     8540  1894.0     8970  1896.0     9145  1898.0     9175
GR1896.0     9265  1896.0     9605  1894.0     9695  1892.0     9740  1892.4     9965
GR1875.9     9937.5  1875.9  10002.5  1884.4    10020  1885.0    10050  1886.0    10060
GR1887.0    10058  1890.0    10085  1892.0    10095  1894.0    10105  1894.0    10255
GR1896.0    10540  1896.0    10810  1898.0    11050  1900.0    11250  1902.0    11390
NH       5     0.037     9935     0.025    10060     0.037     10100     0.10     11045     0.037
NH11375
ET             7.1                                  8045
X110.634        33     9935    10060       38       38        38
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GR1898.9	7525	1898.0	7630	1896.0	7660	1894.0	7685	1893.1	7715
GR1894.0	7735	1894.0	7895	1896.0	7990	1897.7	8045	1896.0	8150
GR1894.0	8470	1893.6	8540	1894.0	8940	1896.0	9150	1898.0	9195
GR1896.0	9505	1894.0	9685	1892.0	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10805
GR1898.0	11045	1900.0	11155	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					8050			
X110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7890	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8825	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9680	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					8070			
X110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
ET	7.1					8070			
X110.650	34	9956.9	10043.1	1	1	1			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1889.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1889.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
NH 5	0.037	9941	0.018	10066	0.037	10135	0.10	10735	0.037
NH 11355									
ET	7.1					8080			
X110.657	37	9956.9	10043.1	41	41	41			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1876.9	9957	1876.5	10000	1876.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10058	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
ET	7.1					8080			
X110.658	37	9956.9	10043.1	1	1	1			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1884.9	9957	1884.5	10000	1884.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10058	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
NH 3	0.037	9940	0.018	10073	0.037	11345			
ET	7.1					8065			
X110.665	34	9940	10060	40	40	40			
GR1899.2	7480	1898.0	7530	1896.0	7685	1896.0	7935	1898.0	8015
GR1898.9	8065	1898.0	8125	1896.0	8220	1895.5	8510	1896.0	8960
GR1898.0	9205	1900.0	9365	1900.0	9455	1898.0	9545	1896.0	9680
GR1894.0	9750	1892.0	9871	1889.8	9894	1894.3	9940	1894.8	9945
GR1884.8	9965	1884.5	10000	1884.8	10035	1894.8	10055	1894.3	10060

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GR1891.3   19057   1890.3   19070   1891.3   19073   1892.0   19130   1894.0   19140
GR1896.9   19640   1898.0   19675   1900.0   11105   1902.0   11345
QT     2   23000   82000
NC 0.037   0.037   0.025
X110.686      23    9940    10060      115       90      113
X2                                                              15
X3    10
GR1904.0    6430   1902.0    6820   1900.0    7810   1899.9    7970   1899.7    8085
GR1899.7    8220   1898.5    8530   1898.6    8800   1898.1    9140   1898.0    9700
GR1898.0    9915   1896.0    9935   1894.3    9940   1885.1    9960   1884.7   10000
GR1885.1   10040   1894.3   10060   1896.0   10070   1898.9   10100   1898.0   10450
GR1900.0   10800   1902.0   11360   1904.0   11500
SB  1.25    1.56      2.8              70.       5   1194.8     1.74   1885.5   1885.1
NC 0.037   0.037   0.035
ET             7.1                                 8000
X110.697      22    9945    10060      55.       55.     55.
X2                    1.    1899.   1898.6                                    15
BT    17    6430   1904.0            6820   1902.0            7810   1900.0
BT  7970   1899.9            8085   1899.7            8220   1899.7            8530
BT1898.5            8800   1898.6            9140   1898.1            9695   1899.
BT             9735   1899.            9895   1899.            9995   1899.
BT 10075   1899.            10320   1900.0            10870   1902.0           11270
BT1904.0
GR1904.0    6430   1902.0    6820   1900.0    7810   1899.9    7970   1899.7    8085
GR1899.7    8220   1898.5    8530   1898.6    8800   1898.1    9140   1898.0    9625
GR1896.0    9935   1890.0    9945   1896.0    9970   1885.5    9975   1885.5   10025
GR1886.0   10035   1890.0   10060   1896.0   10070   1898.0   10090   1900.0   10290
GR1902.0   10850   1904.0   11300
ET             7.1                                 7380
X1 10.70      23    9945    10060      15.       15.     15.
X2                                                              15
GR1906.0    6210   1904.0    6560   1903.9    6805   1902.0    7285   1903.1    7380
GR1903.0    7680   1902.8    8185   1902.     8465   1900.     9160   1898.     9560
GR 1898.    9900   1890.     9945   1896.     9965   1885.5    9975   1885.5   10025
GR 1886.   10035   1890.    10060   1898.    10075   1898.    10145   1900.0   10235
GR1902.0   10905   1904.0   11205   1906.0   11575
SB  1.25    1.56      2.8              70.       5   1194.8     1.74   1885.5   1885.5
ET             7.1                                 7380
X1 10.71                                    60.       60.     60.
X2                    1.    1899.   1899.5                                    15
BT    19    6210   1906.0            6560   1904.0            6805   1903.9
BT  7285   1902.9            7380   1903.1            7680   1903.0            8185
BT1902.8            8465   1902.0            9045   1901.9            9160   1900.0
BT             9535   1899.6            9930   1899.5           10100   1899.5
BT 10200   1899.9           10235   1900.0           10400   1900.9           10805
BT1902.0           11205   1904.0           11575   1906.0
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR
J1                3                   -1
J2    15                -1


ER
EOF..
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      28
  10.34       SECNO=River Mileage above Advanced Wastewater Treatment Plant
  10.34       Centerline Station at 10000
  10.46       Centerline Station at 10000
  10.49       Centerline Station at 5188
  10.54       Centerline Station at 10000
  10.55       **** Civic Center Drive (new structure) ****
  10.55       Normal Bridge
  10.55       1* Debris Load
  10.55       Centerline Station at 10000
  10.62       Centerline Station at 10000
 10.627       Centerline Station at 10000
 10.634       Centerline Station at 10000
 10.642       Centerline Station at 10000
 10.649       Centerline Station at 10000
 10.650       Centerline Station at 10000
 10.657       Centerline Station at 10000
 10.658       **** Drop Structure ****
 10.658       Centerline Station at 10000
 10.665       Centerline Station at 10000
 10.686       Centerline Station at 10000
 10.697       **** I-15 North ****
 10.697       2* Debris Load
 10.697       Centerline Station at 10000
  10.70       Centerline Station at 10000
  10.71       **** I-15 South ****
  10.71       2* Debris Load
  10.71       Centerline Station at 10000
  10.74       Centerline Station at 2355
T1            CORFCD/COE OVERFLOW STUDY
T2            JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3            LAS VEGAS WASH - 50-YEAR
J1                  2                -1
J2      -1                -1
J3     150
QT       1    12500
VC                          0.1       0.3
NH       5      0.04      6660      0.10      8790     0.042      9965     0.035     10055     0.037
NH   10835
ET                 7.1                                                  8215
X1   10.34          53      9965     10055       450       420       450
X2                                                                                              15
GR1888.0       6015  1886.0      6025  1884.0      6075  1882.0      6295  1880.0      6315
GR1878.9       6420  1880.0      6480  1883.9      6505  1880.0      6515  1876.0      6535
GR1876.0       6545  1882.0      6560  1884.0      6660  1886.0      6925  1884.0      7025
GR1884.0       7110  1886.0      7210  1886.0      7320  1884.0      7380  1884.0      7445
GR1882.0       7450  1881.3      7480  1882.0      7505  1884.0      7670  1882.0      7685
GR1882.0       7775  1884.0      7805  1884.2      7900  1884.0      8035  1882.7      8100
GR1884.0       8170  1884.3      8215  1884.0      8270  1882.0      8390  1881.6      8450
GR1882.0       8500  1882.0      8600  1882.0      8790  1881.6      8875  1882.0      8975
GR1882.0       9185  1881.6      9635  1882.0      9775  1882.0      9965  1872.0      9995
GR1872.0      10030  1880.0     10065  1882.3     10190  1882.0     10310  1884.0     10350
GR1884.8      10675  1886.0     10910  1888.0     10835
NH       4      0.10      8095      0.042      9905     0.035     10020     0.037     10575
ET                 7.1                                                  9215
X1   10.46          28      9905     10020       600       700       600
X2                                                                                              15
GR1890.0       7310  1886.0      7375  1886.0      7420  1888.0      7445  1888.0      7680
GR1888.0       8095  1888.0      9515  1887.2      8750  1886.0      8925  1886.0      8975
GR1886.6       9215  1886.0      9350  1884.0      9450  1883.3      9695  1884.0      9815
GR1885.1       9870  1884.0      9880  1882.0      9900  1880.0      9905  1878.0      9970
GR1876.1      10000  1878.0     10010  1880.0     10020  1882.0     10075  1884.0     10155
GR1886.0      10275  1888.0     10425  1890.0     10575
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NC  0.042     0.037     0.038
ET          7.1                                  8075
X1 10.49        27      9975     10015       250       140       170
X2                                                                    15
GR1892.0     7615  1886.0     7635  1886.0     7650  1888.0     7680  1890.0     7850
GR1890.6     8075  1890.0     8505  1888.0     8975  1888.0     9215  1886.0     9420
GR1884.0     9640  1884.0     9860  1884.1     9890  1884.0     9925  1880.0     9935
GR1880.0     9975  1878.0     9995  1877.0    10000  1878.0    10005  1880.0    10015
GR1884.0    10035  1884.0    10170  1886.0    10260  1886.0    10325  1888.0    10360
GR1890.0    10430  1892.0    10705
NC                              0.3       0.5
ET          7.1                                  9450
X1 10.54        33      9934     10077       270.      220.      260.
X2                                                                    15
BT     9     9450  1890.7  1890.7     9480  1891.6  1890.0     9520  1890.0  1888.0
BT  9700  1888.5  1886.0     9934  1887.7  1886.0  9938.9  1887.7  1885.7 10061.1
BT1888.8  1885.7    10077  1889.0  1888.0    10225  1890.0  1890.0
GR1894.0     7630  1892.0     7735  1890.0     7800  1889.0  7825.0  1889.0     7875
GR1890.0     7950  1892.0     7950  1892.0     8410  1890.0     8940  1890.0     9380
GR1890.7     9450  1890.     9480  1888.     9520  1886.     9700  1886.0     9934
GR1885.7  9938.9  1881.9     9939  1877.8     9956  1877.8  9974.5  1885.7  9974.6
GR1885.7  9977.5  1877.8  9977.6  1877.8 10022.5  1885.7 10022.6  1885.7 10025.3
GR1877.8 10025.4  1877.8 10043.8  1881.9    10061  1885.7 10061.1  1888.0    10077
GR 1890.    10225  1892.    10680  1894.0    11050
ET          7.1                                  9290
X1 10.55        38      9928     10075        82.       82.       82.
X2                                                                    15
BT     8     9505  1890.0  1890.0     9565  1888.8  1888.0     9825  1889.0  1886.1
BT  9928  1887.2  1886.0  9938.9  1887.7  1885.9 10061.1  1888.8  1885.9    10075
BT1889.0  1888.0    10210  1890.0  1890.0
GR1896.0     7505  1894.0     7645  1892.0     7735  1890.0     7780  1888.0     7805
GR1888.0     7835  1890.0     7890  1892.0     7980  1893.1     8260  1892.0     8595
GR1890.0     8910  1890.0     9210  1892.0     9290  1890.0     9345  1890.7     9475
GR 1890.     9505  1888.     9565  1886.1     9825.  1886.0     9928  1885.9  9938.9
GR1882.1     9939  1878.0     9956  1878.0  9974.5  1885.9  9974.6  1885.9  9977.5
GR1878.0  9977.6  1878.0 10022.5  1885.9 10022.6  1885.9 10025.3  1878.0 10025.4
GR1878.0 10043.8  1882.1    10061  1885.9 10061.1  1888.0    10075  1890.     10210
GR 1892.    10665  1894.0    11030  1896.0    11380
NH      7     0.037     9849     0.035     9965     0.025    10020     0.035    10095     0.037
NH10100       0.10    11100     0.035    11275
ET          7.1                                  9204
X1 10.62        35      9966     10020       320       245       335
X2                                                                    15
GR1898.0     7620  1896.0     7630  1894.0     7665  1892.5     7710  1894.0     7795
GR1894.0     7885  1896.0     7975  1897.3     8035  1896.0     9109  1894.0     8429
GR1893.0     8549  1894.0     9104  1896.0     9139  1896.0     9204  1894.5     9224
GR1893.7     9275  1894.4     9308  1893.7     9359  1894.2     9391  1893.2     9554
GR1892.5     9849  1892.0     9991  1892.0     9936  1891.7     9966  1875.7  9997.5
GR1875.7 10002.5  1884.2    10020  1890.0    10082  1892.0    10095  1894.0    10100
GR1894.0    10255  1896.8    10590  1896.0    10805  1898.0    11100  1900.0    11275
NH      5     0.037     9965     0.025    10020     0.037    10068       0.10    11050     0.037
NH 11390
ET          7.1                                  9605
X110.627        35      9965     10020        62        62        62
GR1898.8     7500  1898.0     7605  1896.0     7635  1894.0     7670  1892.9     7705
GR1894.0     7775  1894.0     7880  1896.0     7975  1897.5     8035  1896.0     8130
GR1894.0     8450  1893.4     8540  1894.0     8970  1896.0     9145  1898.0     9175
GR1896.0     9265  1896.0     9605  1894.0     9695  1892.0     9740  1892.4     9965
GR1875.9  9997.5  1875.9 10002.5  1894.4    10020  1885.0    10050  1886.0    10060
GR1887.0    10068  1890.0    10085  1892.0    10095  1894.0    10135  1894.0    10255
GR1896.0    10540  1896.0    10810  1898.0    11050  1900.0    11250  1902.0    11390
NH      5     0.037     9935     0.025    10060     0.037    10100       0.10    11045     0.037
NH11375
ET          7.1                                  9195
X110.634        33      9935     10060        38        38        33
GR1898.9     7525  1898.0     7630  1896.0     7660  1894.0     7685  1893.1     7715
GR1894.0     7785  1894.0     7855  1896.0     7990  1897.7     8045  1896.0     8150
GR1894.0     8470  1893.6     8540  1894.0     8940  1896.0     9150  1898.0     9195
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GR1896.0	9605	1894.0	9685	1892.0	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10805
GR1898.0	11045	1900.0	11155	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					9435			
X110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7850	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8625	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9660	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					9485			
X110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
ET	7.1					9485			
X110.650	34	9956.9	10043.1	1	1	1			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1889.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1889.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
NH 5	0.037	9941	0.018	10065	0.037	10135	0.10	10735	0.037
NH 11355									
ET	7.1					9410			
X110.657	37	9956.9	10043.1	41	41	41			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1876.9	9957	1876.5	10010	1876.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1889.5	10063	1889.5	10066
GR1891.0	10068	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
ET	7.1					9410			
X110.658	37	9956.9	10043.1	1	1	1			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1884.9	9957	1884.5	10000	1884.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10058	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
NH 3	0.037	9940	0.018	10073	0.037	11345			
ET	7.1					9455			
X110.665	34	9940	10060	40	40	40			
GR1899.2	7480	1898.0	7530	1896.0	7685	1896.0	7935	1898.0	8015
GR1898.9	8065	1898.0	8125	1896.0	8220	1895.5	8510	1896.0	8960
GR1898.0	9205	1900.0	9365	1900.0	9455	1898.0	9545	1896.0	9680
GR1894.0	9750	1892.0	9871	1889.8	9894	1894.3	9940	1894.8	9545
GR1884.8	9965	1884.5	10000	1884.8	10035	1894.8	10055	1894.3	10060
GR1891.3	10067	1890.3	10070	1891.3	10073	1892.0	10130	1894.0	10140
GR1896.0	10640	1898.0	10975	1900.0	11105	1902.0	11345		
NC 0.037	0.037	0.025							

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X110.686      23      9940    10060       115       90       113
X2                                                                                                  15
X3    10                                                          1898.6    1898.6
GR1904.0    6430    1902.0     6820    1900.0     7810    1899.9     7970    1899.7     8085
GR1899.7    8220    1898.5     8530    1898.6     8800    1898.1     9140    1899.0     9700
GR1898.0    9915    1896.0     9935    1894.3     9940    1885.1     9960    1884.7    10000
GR1885.1   10040    1894.3    10060    1896.0    10070    1898.0    10150    1898.0    10450
GR1900.0   10800    1902.0    11360    1904.0    11500
SB  1.25    1.56       2.8                 70.        5    1194.8      1.74    1885.5    1885.1
VC 0.037   0.037     0.035
X110.697      22      9945    10060        55.       55.       55.
X2                      1.     1899.    1898.6                                                      15
X3    10                                                          1899.0    1899.0
BT    17    6430    1904.0                6820    1902.0                7810    1900.0
BT  7970  1899.9                8085    1899.7                8220    1899.7                8530
BT1898.5                8800    1898.6                9140    1898.1                9695    1899.
BT          9795    1899.                9895    1899.                9995    1899.
BT 10075    1899.               10320    1900.0              10870    1902.0              11270
BT1904.0
GR1904.0    6430    1902.0     6820    1900.0     7810    1899.9     7970    1895.7     8085
GR1899.7    8220    1898.5     8530    1898.6     8300    1898.1     9140    1898.0     9625
GR1896.0    9935    1890.0     9945    1886.0     9970    1885.5     9975    1885.5    10025
GR1886.0   10035    1890.0    10060    1896.0    10070    1898.0    10090    1900.0    10290
GR1902.0   10850    1904.0    11300
X1 10.70      23      9945    10060        15.       15.       15.
X2                                                                                                  15
X3    10                                                          1898.6    1898.6
GR1906.0    6210    1904.0     6560    1903.3     6805    1902.0     7285    1903.1     7380
GR1903.0    7680    1902.8     8185    1902.      8465    1900.      9150    1898.      9560
GR 1898.    9900    1890.      9945    1886.      9965    1885.5     9975    1885.5    10025
GR 1886.   10035    1890.     10060    1898.     10075    1898.     10145    1900.0    10235
GR1902.0   10805    1904.0    11205    1906.0    11575
SB  1.25    1.56       2.8                 70.        5    1194.8      1.74    1885.5    1885.5
X1 10.71                                    60.       60.       60.
X2                      1.     1895.    1899.5                                                      15
X3    10                                                          1899.0    1899.0
BT    19    6210    1906.0                6560    1904.0                6805    1903.9
BT  7285  1902.8                7380    1903.1                7680    1903.0                8185
BT1902.8                8465    1902.0                9045    1901.9                9160    1900.0
BT          9535    1899.6               9930    1899.5               10100    1899.5
BT 10200    1899.9              10235    1900.0              10400    1900.9              10805
BT1902.0               11205    1904.0               11575    1906.0
EJ


ER
EOF..
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C
     28
  10.34        SECNO=River Mileage above Advanced Wastewater Treatment Plant
  10.34        Centerline Station at 10000
  10.46        Centerline Station at 10000
  10.49        Centerline Station at 5188
  10.54        Centerline Station at 10000
  10.55        **** Civic Center Drive (new structure) ****
  10.55        Normal Bridge
  10.55        1% Debris Load
  10.55        Centerline Station at 10000
  10.62        Centerline Station at 10000
 10.627        Centerline Station at 10000
 10.634        Centerline Station at 10000
 10.642        Centerline Station at 10000
 10.649        Centerline Station at 10000
 10.650        Centerline Station at 10000
 10.657        Centerline Station at 10000
 10.658        **** Drop Structure ****
 10.658        Centerline Station at 10000
 10.665        Centerline Station at 10000
 10.686        Centerline Station at 10000
 10.697        **** I-15 North ****
 10.697        2% Debris Load
 10.697        Centerline Station at 10000
  10.70        Centerline Station at 10000
  10.71        **** I-15 South ****
  10.71        2% Debris Load
  10.71        Centerline Station at 10000
  10.74        Centerline Station at 2355
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - 50-YEAR
J1               2                   -1
J2    -1                -1
J3   150
QT     1   12500
NC                             0.1         0.3
NH     5     0.04      6660     0.10      8790     0.042      9965     0.035     10055     0.037
NH 10835
ET               7.1                                                  8215
X1 10.34          53      9965     10055       450       420       450
K2                                                                                          15
GR1888.0        6015    1886.0      6025    1884.0      6075    1882.0      6295    1880.0      6315
GR1878.9        6420    1880.0      6420    1883.0      6505    1880.0      6515    1876.0      6535
GR1876.0        6545    1882.0      6560    1884.0      6660    1886.0      6925    1884.0      7025
GR1884.0        7110    1886.0      7210    1886.0      7320    1884.0      7380    1884.0      7445
GR1882.0        7450    1881.3      7480    1882.0      7505    1884.0      7670    1882.0      7685
GR1882.0        7775    1884.0      7805    1884.2      7900    1884.0      8035    1882.7      8100
GR1884.0        8170    1884.3      8215    1884.0      8270    1882.0      8390    1881.6      8450
GR1882.0        8500    1882.0      8600    1882.0      8790    1881.6      8875    1882.0      8975
GR1882.0        9185    1881.6      9635    1882.0      9775    1882.0      9965    1872.0      9995
GR1872.0       10030    1880.0     10055    1882.0     10190    1882.0     10310    1884.0     10350
GR1884.8       10675    1886.0     10810    1888.0     10835
NH     4     0.10      8095     0.042      9905     0.035     10020     0.037     10575
ET               7.1                                                  9215
X1 10.46          28      9905     10020       600       700       600
X2                                                                                          15
GR1890.0        7310    1886.0      7375    1886.0      7420    1888.0      7445    1868.0      7680
GR1888.0        8095    1888.0      8515    1887.2      8750    1886.0      8925    1886.0      8975
GR1886.6        9215    1886.0      9390    1884.0      9450    1883.3      9695    1884.0      9815
GR1885.1        9870    1884.0      9880    1882.0      9900    1880.0      9905    1878.0      9970
GR1876.1       10000    1878.0     10010    1880.0     10020    1882.0     10075    1884.0     10155
GR1886.0       10275    1888.0     10425    1890.0     10575
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NC 0.042    0.037    0.035
ET              7.1                                    8075
X1 10.49         27      9975     10015      250       140       170
X2                                                                                                  15
GR1892.0      7615   1886.0      7635   1896.0      7650   1888.0      7680   1890.0      7690
GR1890.6      8075   1890.0      8505   1888.0      8975   1888.0      9215   1886.0      9420
GR1884.0      9640   1884.0      9860   1884.1      9890   1884.0      9925   1880.0      9935
GR1880.0      9975   1878.9      9995   1877.0     10000   1878.0     10005   1880.0     10015
GR1884.0     10035   1884.0     10170   1896.0     10260   1886.0     10325   1888.0     10360
GR1890.0     10430   1892.0     10705
NC                                0.3        0.5
ET              7.1                                    9450
X1 10.54         33      9934     10077      270.      220.      260.
X2                                                                                                  15
BT      9     9450   1890.7   1890.7      9480   1891.6   1890.0      9520   1890.0   1888.0
BT   9700   1888.5   1886.0      9934   1887.7   1886.0   9938.9   1887.7   1885.7  10061.1
BT1888.8   1885.7     10077   1885.0   1888.0     10225   1890.0   1890.0
GR1894.3      7630   1892.0      7735   1890.0      7800   1888.0   7825.0   1888.0      7875
GR1890.0      7950   1892.0      7990   1892.0      8410   1890.0      8940   1890.0      9380
GR1890.7      9450   1890.       9480   1888.       9520   1886.       9700   1886.0      9934
GR1885.7   9938.9   1881.9      9939   1877.8      9956   1877.8   9974.5   1885.7   9974.6
GR1885.7   9977.5   1877.8   9977.6   1877.8   10022.5   1885.7  10022.6   1885.7  10025.3
GR1877.8  10025.4   1877.8  10043.8   1881.9     10061   1885.7  10061.1   1888.0     10077
GR 1890.    10225   1892.     10680   1894.0     11050
ET              7.1                                    9290
X1 10.55         38      9928     10075       82.       82.       82.
X2                                                                                                  15
BT      8     9505   1890.0   1890.0      9565   1888.8   1888.0      9825   1888.0   1886.1
BT   9928   1887.2   1886.0   9938.9   1887.7   1885.9  10061.1   1888.8   1885.9     10075
BT1889.0   1888.0     10210   1890.0   1890.0
GR1896.0      7505   1894.0      7645   1892.0      7735   1890.0      7780   1888.0      7805
GR1888.0      7835   1890.0      7890   1892.0      7980   1893.1      8260   1892.0      8595
GR1890.0      8910   1890.0      9210   1892.0      9290   1890.0      9345   1890.7      9475
GR 1890.      9535   1888.       9565   1886.1      9825.  1886.0      9928   1885.9   9938.9
GR1882.1      9939   1878.0      9956   1878.0      9974.5 1885.9      9974.6 1885.9   9977.5
GR1878.0   9977.6   1878.0  10022.5   1885.9  10022.6   1885.9  10025.3   1878.0  10025.4
GR1878.0  10043.8   1882.1     10061   1885.9  10061.1   1888.0     10075   1890.      10210
GR 1892.    10665   1894.0     11030   1896.0     11380
NH      7   0.037     9849    0.035      9966    0.025     10020    0.035     10095    0.037
NH10100      0.10    11100    0.035     11275                    9204
ET              7.1
X1 10.62         35      9966     10020      320       245       335
X2                                                                                                  15
GR1898.0      7620   1896.0      7630   1894.0      7665   1892.5      7710   1894.0      7795
GR1894.0      7885   1896.0      7975   1897.3      8035   1896.0      8109   1894.0      8429
GR1893.0      8549   1894.0      9104   1896.0      9139   1896.0      9204   1894.5      9224
GR1893.7      9275   1894.4      9308   1893.7      9359   1894.2      9391   1893.2      9554
GR1892.5      9849   1892.0      9891   1892.3      9936   1891.7      9966   1875.7   9997.5
GR1875.7  10002.5   1884.2     10020   1890.0     10082   1892.0     10095   1894.0     10100
GR1894.0     10255   1896.8     10590   1896.0     10805   1898.0     11100   1900.0     11275
NH      5   0.037     9965    0.025     10020    0.037     10068      0.10     11050    0.037
NH 11390
ET              7.1                                    9605
K110.627         35      9965     10020         62        62        62
GR1898.8      7500   1898.0      7605   1896.0      7635   1894.0      7670   1892.9      7705
GR1894.0      7775   1894.0      7980   1896.0      7975   1897.5      8035   1896.0      8130
GR1894.0      8450   1893.4      9540   1894.0      8970   1896.0      9145   1898.0      9175
GR1896.0      9265   1896.0      9605   1894.0      9695   1892.0      9740   1892.4      9965
GR1875.9   9997.5   1875.9  10002.5   1884.4     10020   1885.0     10050   1886.0     10060
GR1887.0     10058   1890.0     10085   1892.0     10095   1894.0     10105   1894.0     10255
GR1896.0     10540   1896.0     10810   1898.0     11050   1900.0     11250   1902.0     11390
NH      5   0.037     9935    0.025     10060    0.037     10100      0.10     11045    0.037
NH11375
ET              7.1                                    9195
K110.634         33      9935     10060         38        38        38
GR1898.9      7525   1898.0      7630   1896.0      7660   1894.0      7685   1893.1      7715
GR1894.0      7785   1894.0      7895   1896.0      7990   1897.7      8045   1896.0      8150
GR1894.0      8470   1893.6      8540   1894.0      8940   1896.0      9160   1898.0      9195
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GR1896.0     9695   1894.0     9685   1892.0     9770   1891.4     9955   1876.4     9965
GR1876.1    10000   1876.4    10035   1887.0    10060   1888.0    10068   1890.0    10090
GR1892.0    10100   1894.0    10110   1894.0    10245   1896.0    10545   1896.0    10905
GR1896.0    11045   1900.0    11195   1902.0    11375
NH      5    0.037     9935    0.018    10055    0.037    10105     0.10    10975    0.037
NH 11375
ET             7.1                                          9435
X110.642        34     9935    10055       40       40       40
GR1899.8      7600   1898.0     7655   1896.0     7665   1894.0     7680   1893.5     7710
GR1894.0      7760   1894.5     7890   1896.0     7990   1898.0     8050   1896.0     8165
GR1894.0      8525   1894.0     8825   1896.0     9155   1898.0     9195   1898.0     9435
GR1896.0      9590   1894.0     9680   1889.5     9935   1886.5     9945   1876.5     9965
GR1876.2     10000   1876.5    10035   1886.5    10055   1887.0    10056   1888.0    10064
GR1890.0     10072   1892.0    10105   1894.0    10120   1894.0    10220   1896.0    10330
GR1896.0     10550   1898.0    10975   1900.0    11120   1902.0    11375
NH      5    0.037     9945    0.018    10058    0.037    10083     0.10    10975    0.037
NH 11380
ET             7.1                                          9485
X110.649        34   9956.9  10043.1       39       39       39
GR1899.6      7520   1898.0     7635   1896.0     7670   1894.3     7720   1895.2     7900
GR1896.0      7975   1898.0     8040   1898.6     8070   1898.0     8130   1896.0     8200
GR1894.4      8540   1896.0     9075   1898.0     9215   1898.0     9485   1896.0     9620
GR1894.0      9690   1892.0     9930   1886.5     9945   1886.3   9956.9   1876.8     9957
GR1876.3     10000   1876.8    10043   1886.3  10043.1   1886.5    10048   1887.0    10058
GR1888.0     10061   1890.0    10070   1892.0    10083   1894.0    10095   1896.0    10275
GR1896.0     10555   1898.0    10975   1900.0    11120   1902.0    11380
ET             7.1                                          9485
X110.650        34   9956.9  10043.1        1        1        1
GR1899.6      7520   1898.0     7635   1896.0     7670   1894.3     7720   1895.2     7900
GR1896.0      7975   1898.0     8040   1898.6     8070   1898.0     8130   1896.0     8200
GR1894.4      8540   1896.0     9075   1898.0     9215   1898.0     9485   1896.0     9620
GR1894.0      9690   1892.0     9930   1886.5     9945   1889.3   9956.9   1876.8     9957
GR1876.3     10000   1876.8    10043   1889.3  10043.1   1886.5    10048   1887.0    10058
GR1888.0     10061   1890.0    10070   1892.0    10083   1894.0    10095   1896.0    10275
GR1896.0     10555   1898.0    10975   1900.0    11120   1902.0    11380
NH      5    0.037     9941    0.018    10066    0.037    10135     0.10    10735    0.037
NH 11355
ET             7.1                                          9410
X110.657        37   9956.9  10043.1       41       41       41
GR1899.8      7525   1898.0     7605   1896.0     7675   1894.2     7725   1896.0     7965
GR1898.0      8030   1898.8     8080   1898.0     8135   1896.0     8210   1894.9     8530
GR1896.0      9005   1898.0     9210   1900.0     9410   1898.0     9500   1896.0     9655
GR1894.0      9700   1892.0     9865   1892.0     9885   1890.0     9941   1899.0     9944
GR1890.0      9947   1894.5   9956.9   1876.9     9957   1876.5    10000   1876.9    10043
GR1894.5  10043.1    1894.3    10048   1889.5    10060   1888.5    10063   1889.5    10066
GR1891.0     10058   1892.0    10135   1894.0    10140   1896.0    10735   1898.0    10950
GR1900.0     11115   1902.0    11355
ET             7.1                                          9410
X110.658        37   9956.9  10043.1        1        1        1
GR1899.8      7525   1898.0     7605   1896.0     7675   1894.2     7725   1896.0     7965
GR1898.0      8030   1898.8     8080   1898.0     8135   1896.0     8210   1894.9     8530
GR1896.0      9005   1898.0     9210   1900.0     9410   1898.0     9500   1896.0     9655
GR1894.0      9700   1892.0     9865   1892.0     9885   1890.0     9941   1889.0     9944
GR1890.0      9947   1894.5   9956.9   1884.9     9957   1884.5    10000   1884.9    10043
GR1894.5  10043.1    1894.3    10048   1889.5    10060   1888.5    10063   1889.5    10066
GR1891.0     10058   1892.0    10135   1894.0    10140   1896.0    10735   1898.0    10950
GR1900.0     11115   1902.0    11355
NH      3    0.037     9940    0.018    10073    0.037    11345
ET             7.1                                          9455
X110.665        34     9940    10060       40       40       40
GR1899.2      7480   1898.0     7530   1896.0     7685   1896.0     7935   1898.0     8015
GR1898.9      8055   1898.0     9125   1896.0     8220   1895.5     8510   1896.0     8960
GR1898.0      9205   1900.0     9365   1900.0     9455   1898.0     9545   1896.0     9680
GR1894.0      9750   1892.0     9871   1889.8     9894   1894.3     9940   1894.8     9545
GR1884.8      9965   1884.5    10000   1884.8    10035   1894.8    10055   1894.3    10060
GR1891.3     10067   1890.3    10070   1891.3    10073   1892.0    10130   1894.0    10140
GR1896.0     10640   1898.0    10975   1900.0    11105   1902.0    11345
NC 0.037     0.037    0.025
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X110.686      23      9940    10060      115       90      113
X2                                                                    15
K3    10                                          1898.6    1898.6
GR1904.0    6430    1902.0    6820    1900.0    7810    1899.9    7970    1899.7    8085
GR1899.7    8220    1898.5    8530    1898.6    8800    1898.1    9140    1898.0    9700
GR1898.0    9915    1896.0    9935    1894.3    9940    1885.1    9950    1884.7   10000
GR1885.1   10040    1894.3   10060    1896.0   10070    1898.0   10100    1898.0   10450
GR1900.0   10800    1902.0   11360    1904.0   11500
SR  1.25    1.56       2.8                70.       5    1194.8    1.74    1885.5    1885.1
NC 0.037   0.037     0.035
X110.697      22      9945    10060       55.       55.       55.
X2                      1.    1899.    1898.6                         15
K3    10                                          1899.0    1899.0
BT    17    6430    1904.0                6820    1902.0               7810    1900.0
BT  7970    1899.9                8085    1899.7                8220    1899.7                8530
BT1898.5                8800    1898.6                9140    1898.1                9655    1899.
BT                  9795    1899.                 9895    1899.                 9995    1899.
BT 10075    1899.               10320    1900.0               10870    1902.0               11270
BT1904.0
GR1904.0    6430    1902.0    6820    1900.0    7810    1899.9    7970    1899.7    8085
GR1899.7    8220    1898.5    8530    1898.6    8800    1898.1    9140    1898.0    9625
GR1896.0    9935    1890.0    9945    1886.0    9970    1885.5    9975    1885.5   10025
GR1886.0   10035    1890.0   10060    1896.0   10070    1898.0   10090    1900.0   10290
GR1902.0   10850    1904.0   11300
X1 10.70      23      9945    10060       15.       15.       15.
X2                                                                    15
K3    10                                          1898.6    1898.6
GR1906.0    6210    1904.0    6560    1903.9    6805    1902.0    7285    1903.1    7380
GR1903.0    7680    1902.8    8185    1902.     8465    1900.     9160    1898.     9560
GR 1898.    9900    1890.     9945    1886.     9965    1885.5    9975    1885.5   10025
GR 1886.   10035    1890.    10060    1890.    10075    1898.    10145    1900.0   10235
GR1902.0   10805    1904.0   11205    1906.0   11575
SR  1.25    1.56       2.8                70.       5    1194.8    1.74    1885.5    1885.5
X1 10.71                               60.       60.       60.
X2                      1.    1899.    1899.5                         15
K3    10                                          1899.0    1899.0
BT    19    6210    1906.0                6560    1904.0               6805    1903.9
BT  7285    1902.0                7380    1903.1                7680    1903.0                8185
BT1902.8                8465    1902.0                9045    1901.9                9160    1900.0
BT                  9535    1899.6                9930    1899.5               10100    1899.5
BT 10200    1899.9              10235    1900.0               10400    1900.9               10805
BT1902.0               11205    1904.0               11575    1906.0
EJ


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EOF..
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      30
   10.34        SECNO=River Mileage above Advanced Wastewater Treatment Plant
   10.34        Centerline Station at 10000
   10.34        Reduced 25-year flow by 900 cfs due to divided flow at x10.46 and
   10.34           x10.49 (rejoins main channel at x 10.15)
   10.46        Centerline Station at 10000
   10.49        Centerline Station at 5188
   10.54        Centerline Station at 10000
   10.55        **** Civic Center Drive (new structure) ****
   10.55        Normal Bridge
   10.55        1* Debris Load
   10.55        Centerline Station at 10000
   10.62        Centerline Station at 10000
  10.627        Centerline Station at 10000
  10.634        Centerline Station at 10000
  10.642        Centerline Station at 10000
  10.649        Centerline Station at 10000
  10.650        Centerline Station at 10000
  10.657        Centerline Station at 10000
  10.658        **** Drop Structure ****
  10.658        Centerline Station at 10000
  10.665        Centerline Station at 10000
  10.686        Centerline Station at 10000
  10.697        **** I-15 North ****
  10.697        2* Debris Load
  10.697        Centerline Station at 10000
   10.70        Centerline Station at 10000
   10.71        **** I-15 South ****
   10.71        2* Debris Load
   10.71        Centerline Station at 10000
   10.74        Centerline Station at 2355
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 25-YEAR
J1                    2                    -1
J2     -1                  -1
J3    150
QT      1    5300
NC                                  0.1       0.3
NH      5    0.04     6660      0.10      9790    0.042     9965    0.035    10055    0.037
NH  10835
ET             7.1                                          9965
X1  10.34       53     9965     10055       450      420      450                              15
GR1888.0     6015   1886.0      6025    1884.0     6075   1882.0     6295   1880.0      6315
GR1878.9     6420   1880.0      6480    1883.0     6505   1880.0     6515   1876.0      6535
GR1876.0     6545   1882.0      6560    1884.0     6660   1886.0     6925   1884.0      7025
GR1884.0     7110   1886.0      7210    1886.0     7320   1884.0     7380   1884.0      7445
GR1882.0     7460   1881.3      7480    1882.0     7505   1884.0     7670   1882.0      7685
GR1882.0     7775   1884.0      7805    1884.2     7900   1884.0     8035   1882.7      8100
GR1884.0     8170   1884.3      8215    1884.0     8270   1882.0     8390   1881.6      8450
GR1882.0     8500   1882.0      8600    1882.0     8790   1881.6     8875   1882.0      8975
GR1882.0     9185   1881.6      9635    1882.0     9775   1882.0     9565   1872.0      9995
GR1872.0    10030   1880.0     10055    1882.0    10190   1882.0    10310   1884.0     10350
GR1884.8    10675   1886.0     10910    1888.0    10835
NH      4    0.10     8095      0.042     9905    0.035    10020    0.037    10575
ET             7.1                                          9870
X1  10.46       28     9905     10020       600      700      600                              15
GR1890.0     7310   1886.0      7375    1886.0     7420   1888.0     7445   1889.0      7680
GR1888.0     8095   1889.0      8515    1887.2     8750   1886.0     8925   1886.0      8975
GR1886.6     9215   1886.0      9390    1884.0     9450   1883.3     9695   1884.0      9815
GR1885.1     9970   1884.0      9980    1882.0     9900   1880.0     9905   1878.0      9970
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GR1876.1   10000   1878.0   10010   1880.0   10020   1882.0   10075   1884.0   10155
GR1886.0   10275   1886.0   10425   1890.0   10575
QT     1    6200
NC 0.042   0.037   0.035
ET           7.1                                    8975
X1 10.49      27    9975    10015     250      140     170                          15
X2
GR1892.0    7615   1886.0    7635   1886.0    7650   1888.0    7680   1890.0    7890
GR1890.6    8075   1890.0    8505   1888.0    8975   1888.0    9215   1886.0    9420
GR1884.0    9640   1884.0    9860   1884.1    9890   1884.0    9925   1880.0    9935
GR1880.0    9975   1878.0    9995   1877.0   10000   1878.0   10005   1880.0   10015
GR1884.0   10035   1884.0   10170   1886.0   10260   1886.0   10325   1888.0   10360
GR1890.0   10430   1892.0   10705
NC                   0.3      0.5
X1 10.54      33    9934    10077     270.     220.     260.
K3    10                                                 1887.0   1888.5
BT     9    9450   1890.7   1890.7    9480   1891.6   1890.0    9520   1890.0   1888.0
BT  9700   1883.5   1886.0    9934   1887.7   1886.0   9938.9   1887.7   1885.7  10061.1
BT1888.8   1885.7  10077     1889.0   1888.0  10225     1890.0   1890.0
GR1894.0    7630   1892.0    7735   1890.0    7800   1888.0   7825.0   1889.0    7875
GR1890.0    7950   1892.0    7990   1892.0    8410   1890.0    8940   1890.0    9380
GR1890.7    9450   1890.     9480   1888.     9520   1886.     9700   1886.0    9934
GR1885.7   9938.9   1881.9   9939   1877.8    9956   1877.8   9974.5   1885.7   9974.6
GR1885.7   9977.5   1877.8   9977.6 1877.8  10022.5  1885.7  10022.6  1885.7  10025.3
GR1877.8  10025.4   1877.8  10043.8 1881.9   10061   1885.7  10061.1  1888.0   10077
GR 1890.    10225   1892.    10690   1894.0   11050
X1 10.55      38    9928    10075      82.      82.      82.
K3    10                                                 1887.2   1889.0
BT     8    9505   1890.0   1890.0    9565   1888.8   1888.0    9825   1889.0   1886.1
BT  9928   1887.2   1886.0   9938.9  1887.7   1885.9  10061.1   1888.8   1885.9   10075
BT1889.0   1888.0  10210     1890.0   1890.0
GR1896.0    7505   1894.0    7645   1892.0    7735   1890.0    7780   1888.0    7805
GR1888.0    7935   1890.0    7990   1892.0    7990   1893.1    8260   1892.0    8595
GR1890.0    8910   1890.0    9210   1892.0    9290   1890.0    9345   1890.7    9475
GR 1890.    9505   1888.     9565   1886.1    9825.  1886.0    9928   1885.9   9936.9
GR1892.1    9939   1878.0    9956   1878.0   9974.5  1885.9   9974.6  1885.9   9977.5
GR1878.0  9977.6   1878.0  10022.5  1885.9  10022.6  1885.9  10025.3  1878.0  10025.4
GR1878.0 10043.8   1882.1   10061   1885.9  10061.1  1888.0   10075    1890.    10210
GR 1892.    10665  1894.0   11030   1896.0   11380
NH     7    0.037    9849    0.035    9966    0.025   10020    0.035   10095    0.037
NH10100     0.10   11100     0.035  11275
ET           7.1                                    9391
X1 10.62      35    9966    10020     320      245     335
K2                                                                               15
GR1898.0    7620   1896.0    7630   1894.0    7665   1892.5    7710   1894.0    7795
GR1894.0    7885   1896.0    7975   1897.3    8035   1896.0    8109   1894.0    8429
GR1893.0    8549   1894.0    9104   1896.0    9139   1896.0    9204   1894.5    9224
GR1893.7    9275   1894.4    9308   1893.7    9359   1894.2    9391   1893.2    9554
GR1892.5    9849   1892.0    9891   1892.0    9936   1891.7    9966   1875.7   9997.5
GR1875.7  10002.5  1884.2   10020   1890.0   10082   1892.0   10095   1894.0   10100
GR1894.0   10255   1896.8   10550   1896.0   10805   1898.0   11100   1900.0   11275
NH     5    0.037    9965    0.025   10020    0.037   10068    0.10    11050    0.037
NH 11390
ET           7.1                                    9605
X110.627      35    9965    10020      62       62      62
GR1898.8    7500   1898.0    7605   1896.0    7635   1894.0    7670   1892.9    7705
GR1894.0    7775   1894.0    7880   1896.0    7975   1897.5    8035   1896.0    8130
GR1894.0    8450   1893.4    8540   1894.0    8970   1896.0    9145   1898.0    9175
GR1896.0    9255   1896.0    9605   1894.0    9695   1892.0    9740   1892.4    9965
GR1875.9  9997.5   1875.9  10002.5  1894.4   10020   1885.0   10050   1886.0   10060
GR1887.0   10068   1890.0   10085   1892.0   10095   1894.0   10115   1894.0   10255
GR1896.0   10540   1896.0   10810   1898.0   11050   1900.0   11250   1902.0   11390
NH     5    0.037    9935    0.025   10060    0.037   10109    0.10    11045    0.037
NH11375
ET           7.1                                    9195
X110.634      33    9935    10060      38       38      38
GR1898.9    7525   1898.0    7630   1896.0    7660   1894.0    7685   1893.1    7715
GR1894.0    7785   1894.0    7895   1896.0    7990   1897.7    8045   1896.0    8150
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GR1894.0     8470  1891.6     8540  1894.0     8440  1896.0     9160  1892.0     9195
GR1896.0     9605  1894.0     9685  1892.0     9770  1891.4     9935  1876.4     9965
GR1876.1    10000  1876.4    10035  1887.0    10060  1888.0    10068  1890.0    10090
GR1892.0    10100  1894.0    10110  1894.0    10245  1896.0    10545  1896.0    10805
GR1898.0    11045  1900.0    11155  1902.0    11375
NH        5  0.037    9935   0.018    10055  0.037    10105   0.10     10975  0.037
NH 11375
ET             7.1                             9435
X110.642        34    9935    10055      40      40        40
GR1899.8      7600  1898.0     7655  1896.0     7665  1894.0     7680  1893.5     7710
GR1894.0      7760  1894.5     7850  1896.0     7990  1898.0     8050  1896.0     8165
GR1894.0      8525  1894.0     8825  1896.0     9155  1898.0     9195  1898.0     9435
GR1896.0      9590  1894.0     9680  1889.5     9935  1896.5     9945  1876.5     9965
GR1876.2     10000  1876.5    10035  1896.5    10055  1887.0    10056  1888.0    10064
GR1890.0     10072  1892.0    10105  1894.0    10120  1894.0    10220  1896.0    10330
GR1896.0     10550  1898.0    10575  1900.0    11120  1902.0    11375
NH        5  0.037    9945   0.018    10058  0.037    10083   0.10     10975  0.037
NH 11380
ET             7.1                             9485
X110.649        34  9956.9  10043.1      39      39        39
GR1899.6      7520  1898.0     7635  1896.0     7670  1894.3     7720  1895.2     7900
GR1896.0      7975  1898.0     8040  1898.6     8070  1898.0     8130  1896.0     8200
GR1894.4      8540  1896.0     9075  1898.0     9215  1898.0     9435  1896.0     9620
GR1894.0      9690  1892.0     9930  1886.5     9945  1886.3  9956.9   1876.8     9957
GR1876.3     10000  1876.8    10043  1886.3  10043.1  1886.5    10048  1887.0    10058
GR1888.0     10061  1890.0    10070  1892.0    10083  1894.0    10095  1896.0    10275
GR1896.0     10555  1898.0    10575  1900.0    11120  1902.0    11380
X110.650        34  9956.9  10043.1       1       1         1
X3      10
GR1899.6      7520  1898.0     7635  1896.0     7670  1894.3     7720  1895.2     7900
GR1896.0      7975  1898.0     8040  1898.6     8070  1898.0     8130  1896.0     8200
GR1894.4      8540  1896.0     9075  1898.0     9215  1898.0     9485  1896.0     9620
GR1894.0      9690  1892.0     9930  1886.5     9945  1889.3  9956.9   1876.8     9957
GR1876.3     10000  1876.8    10043  1889.3  10043.1  1886.5    10048  1887.0    10058
GR1888.0     10061  1890.0    10070  1892.0    10083  1894.0    10095  1896.0    10275
GR1896.0     10555  1898.0    10575  1900.0    11120  1902.0    11380
NH        5  0.037    9941   0.018    10066  0.037    10135   0.10     10735  0.037
NH 11355
X110.657        37  9956.9  10043.1      41      41        41
X3      10
GR1899.8      7525  1898.0     7605  1896.0     7675  1894.2     7725  1896.0     7965
GR1898.0      8030  1898.8     8080  1898.0     8135  1896.0     8210  1894.9     8530
GR1896.0      9005  1898.0     9210  1900.0     9410  1898.0     9500  1896.0     9655
GR1894.0      9700  1892.0     9865  1892.0     9885  1890.0     9941  1889.0     9944
GR1890.0      9947  1894.5  9956.9   1884.9     9957  1884.5    10000  1884.9    10043
GR1894.5  10043.1   1894.3    10048  1889.5    10060  1888.5    10063  1889.5    10066
GR1891.0     10068  1892.0    10135  1894.0    10140  1896.0    10735  1898.0    10950
GR1900.0     11115  1902.0    11355
X110.658        37  9956.9  10043.1       1       1         1
X3      10
GR1899.8      7525  1898.0     7605  1896.0     7675  1894.2     7725  1896.0     7965
GR1898.0      8030  1898.8     8080  1898.0     8135  1896.0     8210  1894.9     8530
GR1896.0      9005  1898.0     9210  1900.0     9410  1898.0     9500  1896.0     9655
GR1894.0      9700  1892.0     9865  1892.0     9885  1890.0     9941  1889.0     9944
GR1890.0      9947  1894.5  9956.9   1884.9     9957  1884.5    10000  1884.9    10043
GR1894.5  10043.1   1894.3    10048  1889.5    10060  1888.5    10063  1889.5    10066
GR1891.0     10068  1892.0    10135  1894.0    10140  1896.0    10735  1898.0    10950
GR1900.0     11115  1902.0    11355
NH        3  0.037    9942   0.018    10073  0.037    11345
X110.665        34    9940    10060      40      40        40
X3      10
GR1899.2      7480  1898.0     7530  1896.0     7685  1896.0     7935  1898.0     8015
GR1898.9      8065  1898.0     8125  1896.0     8220  1895.5     8510  1896.0     8560
GR1898.0      9205  1900.0     9365  1900.0     9455  1898.0     9545  1896.0     9680
GR1894.0      9750  1892.0     9871  1889.8     9894  1894.3     9940  1894.8     9945
GR1884.8      9965  1884.5    10000  1884.8    10035  1894.8    10055  1894.3    10060
GR1891.3     10067  1890.3    10070  1891.3    10073  1892.0    10130  1894.0    10140
GR1896.0     10640  1898.0    10575  1900.0    11105  1902.0    11345
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NC 0.037   0.037   0.025
X110.686      23    9940   10060     115      90     113
X2                                                          15
X3    10                                  1898.6  1898.6
GR1904.0    6430  1902.0    6820  1900.0    7810  1899.9    7970  1899.7    8085
GR1899.7    8220  1898.5    8530  1898.6    8800  1898.1    9140  1898.0    9700
GR1898.0    9915  1896.0    9935  1894.3    9940  1885.1    9960  1884.7   10000
GR1885.1   10040  1894.3   10060  1896.0   10070  1898.0   10130  1898.0   10450
GR1900.0   10800  1902.0   11360  1904.0   11500
SB  1.25    1.56     2.8           70.       5  1194.8    1.74  1885.5  1885.1
NC 0.037   0.037   0.035
X110.697      22    9945   10060     55.      55.     55.
X2                   1.    1899.  1898.6                       15
X3    10                                  1899.0  1899.0
BT    17    6430  1904.0            6820  1902.0            7810  1900.0
BT  7970  1899.9             8095  1899.7            8220  1859.7            8530
BT1898.5             8800  1898.6            9140  1898.1            9695  1899.
BT          9795  1899.            9895  1899.            9995  1899.
BT 10075  1899.            10320  1900.0           10870  1902.0           11270
BT1904.0
GR1904.0    6430  1902.0    6820  1900.0    7810  1899.9    7970  1899.7    8085
GR1899.7    8220  1898.5    8530  1898.6    8800  1898.1    9140  1898.0    9625
GR1896.0    9935  1890.0    9945  1886.0    9970  1885.5    9975  1885.5   10025
GR1886.0   10035  1890.0   10060  1896.0   10070  1898.0   10090  1900.0   10290
GR1902.0   10850  1904.0   11300
X1 10.70      23    9945   10060      15.      15.     15.
X2                                                          15
X3    10                                  1898.6  1898.6
GR1906.0    6210  1904.0    6560  1903.9    6805  1902.0    7235  1903.1    7380
GR1903.0    7630  1902.8    8185  1902.     8465  1900.     9160  1898.     9560
GR 1898.    9900  1890.     9945  1886.     9965  1885.5    9975  1885.5   10025
GR 1886.   10035  1890.    10060  1890.    10075  1898.    10145  1900.0   10235
GR1902.0   10905  1904.0   11205  1906.0   11575
SB  1.25    1.56     2.8           70.       5  1194.8    1.74  1885.5  1885.5
K1 10.71                          60.      60.     60.
X2                   1.    1895.  1899.5                       15
X3    10                                  1899.0  1899.0
BT    19    6210  1906.0            6560  1904.0            6805  1903.9
BT  7285  1902.0             7380  1903.1            7680  1903.0            8185
BT1902.8             8465  1902.0            9045  1901.9            9160  1900.0
BT          9535  1899.6           9930  1899.5           10100  1899.5
BT 10200  1899.9           10235  1900.0           10400  1900.9           10805
BT1902.0            11205  1904.0           11575  1906.0
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T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - NONDAMAGING FLOWS
J1              2                   -1
J2    -1                -1
J3   150
BT     1    1000
NC                              0.1       0.3
NH     5    0.34     6660     0.10      8790    0.042     9965    0.035    10055    0.037
NH 10835
ET             7.1                                        9965
X1 10.34        53     9965    10055       450      420      450
X2                                                                                    15
GR1888.0      6015   1886.0     6025    1884.0     6075   1882.0     6295   1880.0     6315
GR1878.9      6420   1880.0     6480    1883.0     6505   1880.0     6515   1876.0     6535
GR1876.0      6545   1882.0     6560    1884.0     6660   1886.0     6925   1884.0     7025
GR1884.0      7110   1886.0     7210    1886.0     7320   1884.0     7380   1884.0     7445
GR1882.0      7460   1881.3     7480    1882.0     7505   1884.0     7670   1882.0     7685
GR1882.0      7775   1884.0     7805    1884.2     7900   1884.0     8035   1882.7     8100
GR1884.0      8170   1884.3     8215    1884.0     8270   1882.0     8390   1881.6     8450
GR1882.0      8500   1882.0     8600    1882.0     8790   1881.6     8875   1882.0     8975
GR1882.0      9185   1881.6     9635    1882.0     9775   1882.0     9965   1872.0     9995
GR1872.0     10030   1880.0    10055    1882.0    10190   1882.0    10310   1884.0    10350
GR1884.8     10675   1886.0    10810    1888.0    10835
NH     4    0.10     8095     0.042     9905    0.035    10020    0.037    10575
ET             7.1                                        9870
K1 10.46        28     9905    10020       600      700      600
X2                                                                                    15
GR1890.0      7310   1886.0     7375    1886.0     7420   1888.0     7445   1888.0     7680
GR1888.0      8095   1888.0     8515    1887.2     8750   1886.0     8925   1886.0     8975
GR1886.6      9215   1886.0     9350    1884.0     9450   1883.3     9695   1884.0     9815
GR1885.1      9870   1884.0     9880    1882.0     9900   1880.0     9905   1878.0     9970
GR1876.1     10000   1878.0    10010    1880.0    10020   1882.0    10075   1884.0    10155
GR1886.0     10275   1888.0    10425    1890.0    10575
NC 0.042     0.037    0.035
ET             7.1                                        8975
X1 10.49        27     9925    10035       250      140      170
X2                                                                                    15
GR1892.0      7615   1886.0     7635    1886.0     7650   1888.0     7680   1890.0     7890
GR1890.6      8075   1890.0     8505    1888.0     8975   1888.0     9215   1886.0     9420
GR1884.0      9640   1884.0     9860    1884.1     9890   1884.0     9925   1880.0     9935
GR1880.0      9975   1878.0     9995    1877.0    10000   1878.0    10005   1880.0    10015
GR1884.0     10035   1884.0    10170    1886.0    10260   1886.0    10325   1888.0    10360
GR1890.0     10430   1892.0    10705
NC                              0.3       0.5
X1 10.54        33     9934    10077       270.     220.      260.
X3    10                                                  1887.0   1888.5
BT     9     9450   1890.7     1890.7    9483    1891.6   1890.0     9520   1890.0   1888.0
BT  9700   1888.5   1896.0     9934    1887.7    1886.0   9938.9   1887.7   1885.7  10061.1
BT1888.8   1885.7    10077   1889.0    1888.0    10225    1890.0   1890.0
GR1894.0      7630   1892.0     7735    1890.0     7800   1888.0   7825.0   1888.0     7875
GR1890.0      7950   1892.0     7990    1892.0     8410   1890.0     8940   1890.0     9380
GR1890.7      9450   1890.      9480    1888.      9520   1886.      970    1886.0     9934
GR1885.7    9938.9   1881.9     9939    1877.8     9956   1877.8   9974.5   1885.7   9974.6
GR1885.7    9977.5   1877.8   9977.6    1877.8  10022.5   1885.7  10022.6   1885.7  10025.3
GR1877.8   10025.4   1877.8  10043.8    1881.9    10061    1885.7  10061.1   1888.0    10077
GR 1890.    10225    1892.    10680    1894.0    11050
X1 10.55        38     9928    10075       82.      82.      82.
X3    10                                                  1887.2   1889.0
BT     8     9505   1890.0     1890.0    9565    1888.8   1888.0     9825   1888.0   1886.1
BT  9928   1887.2   1886.0     9938.9    1887.7   1885.9  10061.1   1888.8   1885.9    10075
BT1889.0   1888.0    10210   1890.0    1890.0
GR1896.0      7595   1894.0     7645    1892.0     7735   1890.0     7780   1888.0     7805
GR1888.0      7835   1890.0     7850    1892.0     7980   1893.1     8260   1892.0     8595
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GR1890.0	9910	1890.0	9210	1892.0	9290	1890.0	9345	1890.7	9475
GR 1890.	9525	1888.	9565	1886.1	9825.	1886.0	9928	1885.9	9938.9
GR1882.1	9939	1878.0	9956	1878.0	9574.5	1885.9	9574.6	1885.9	9577.5
GR1878.0	9977.6	1878.0	10022.5	1885.9	10022.6	1885.9	10025.3	1878.0	10025.4
GR1878.0	10143.8	1882.1	10061	1895.9	10061.1	1888.0	10075	1890.	10210
GR 1892.	10665	1894.0	11030	1896.0	11380				
NH 7	0.037	9849	0.035	9966	0.025	10020	0.035	10095	0.037
NH10100	0.10	11100	0.035	11275					
ET	7.1					9391			
X1 10.62	35	9966	10020	320	245	335			
X2									15
GR1898.0	7620	1896.0	7630	1894.0	7665	1892.5	7710	1894.0	7795
GR1894.0	7885	1896.0	7975	1897.3	8035	1896.0	8119	1894.0	8429
GR1893.0	8549	1894.0	9104	1896.0	9139	1896.0	9204	1894.5	9224
GR1893.7	9275	1894.4	9309	1893.7	9359	1894.2	9391	1893.2	9554
GR1892.5	9849	1892.0	9951	1892.0	9936	1891.7	9956	1875.7	9997.5
GR1875.7	10102.5	1884.2	10020	1890.0	10082	1892.0	10095	1894.0	10100
GR1894.0	10255	1896.8	10590	1896.0	10805	1898.0	11100	1900.0	11275
NH 5	0.037	9965	0.025	10020	0.037	10068	0.10	11050	0.037
NH 11390									
ET	7.1					9605			
X110.627	35	9965	10020	62	62	62			
GR1898.8	7500	1898.0	7605	1896.0	7635	1894.0	7670	1892.9	7705
GR1894.0	7775	1894.0	7890	1896.0	7975	1897.5	8035	1896.0	8130
GR1894.0	8450	1893.4	8540	1894.0	8970	1896.0	9145	1898.0	9175
GR1896.0	9265	1896.0	9605	1894.0	9695	1892.0	9740	1892.4	9965
GR1875.9	9997.5	1875.9	10002.5	1894.4	10020	1885.0	10050	1886.0	10060
GR1887.0	10058	1890.0	10085	1892.0	10095	1894.0	10105	1894.0	10255
GR1896.0	10540	1896.0	10810	1898.0	11050	1900.0	11250	1902.0	11390
NH 5	0.037	9935	0.025	10060	0.037	10100	0.10	11045	0.037
NH11375									
ET	7.1					9195			
X110.634	33	9935	10060	38	38	38			
GR1898.5	7525	1898.0	7630	1896.0	7660	1894.0	7685	1893.1	7715
GR1894.0	7785	1894.0	7895	1896.0	7990	1897.7	8045	1896.0	8150
GR1894.0	8470	1893.6	8540	1894.0	8940	1896.0	9160	1898.0	9195
GR1896.0	9605	1894.0	9685	1892.0	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10905
GR1898.0	11045	1900.0	11195	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					9435			
X110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7890	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8925	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9680	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					9485			
X110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9435	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
X110.650	34	9956.9	10043.1	1	1	1			
X3 10									
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9435	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957

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GR1576.5   10000   1876.8   10045   1889.3  10043.1   1886.5   10048   1887.0   10058
GR1888.9   10061   1890.0   10070   1892.0   10083   1894.0   10095   1896.0   10275
GR1896.0   10555   1898.0   10975   1900.0   11120   1902.0   11380
NH     5   0.037     9941   0.018    10065   0.037    10135    0.10    10735   0.037
NH 11355
X110.657       37   9956.9  10043.1       41      41       41
X3    10
GR1899.8     7525   1898.0     7605   1896.0     7675   1894.2     7725   1896.0     7965
GR1898.0     8030   1898.8     8080   1898.0     8135   1896.0     8210   1894.9     8530
GR1896.0     9005   1898.0     9210   1900.0     9410   1898.0     9500   1896.0     9655
GR1894.0     9700   1892.0     9865   1892.0     9885   1890.0     9941   1889.0     9944
GR1890.0     9947   1894.5   9956.9   1876.9     9957   1876.5    10000   1876.9    10043
GR1894.5  10043.1   1894.3    10048   1889.5    10060   1889.5    10063   1889.5    10066
GR1891.0    10068   1892.0    10135   1894.0    10140   1896.0    10735   1898.0    10950
GR1900.0    11115   1902.0    11355
X110.658       37   9956.9  10043.1        1       1        1
X3    10
GR1899.8     7525   1898.0     7605   1896.0     7675   1894.2     7725   1896.0     7965
GR1898.0     8030   1898.8     8080   1898.0     8135   1896.0     8210   1894.9     8530
GR1896.0     9005   1898.0     9210   1900.0     9410   1898.0     9500   1896.0     9655
GR1894.0     9700   1892.0     9865   1892.0     9885   1890.0     9941   1889.0     9944
GR1890.0     9947   1894.5   9956.9   1884.9     9957   1884.5    10000   1884.9    10043
GR1894.5  10043.1   1894.3    10048   1889.5    10060   1888.5    10063   1889.5    10066
GR1891.0    10068   1892.0    10135   1894.0    10140   1896.0    10735   1898.0    10950
GR1900.0    11115   1902.0    11355
NH     3   0.037     9940   0.018    10073   0.037    11345
X110.665       34     9940    10060       40      40       40
K3    10
GR1899.2     7430   1898.0     7530   1896.0     7685   1896.0     7935   1898.0     8015
GR1898.9     8065   1898.0     8125   1896.0     8220   1895.5     8510   1896.0     8560
GR1898.0     9205   1900.0     9365   1900.0     9455   1898.0     9545   1896.0     9680
GR1894.0     9750   1892.0     9871   1889.8     9894   1894.3     9940   1894.8     9945
GR1884.8     9965   1884.5    10000   1884.8    10035   1894.8    10055   1894.3    10060
GR1891.3    10067   1890.3    10070   1891.3    10073   1892.0    10130   1894.0    10140
GR1896.0    10640   1898.0    10975   1900.0    11105   1902.0    11345
NC 0.037   0.037    0.025
X110.686       23     9940    10060      115      90      113
X2                                                                        15
K3    10                                          1898.6  1898.6
GR1904.0     6430   1902.0     6920   1900.0     7810   1899.9     7970   1899.7     8085
GR1899.7     8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9700
GR1898.0     9915   1896.0     9935   1894.3     9940   1885.1     9950   1884.7    10000
GR1885.1    10040   1894.3    10060   1896.0    10070   1898.0    10100   1898.0    10450
GR1900.0    10800   1902.0    11360   1904.0    11500
SB  1.25    1.56     2.8              70.        5     1194.8     1.74   1885.5   1885.1
NC 0.037   0.037    0.035
K110.697       22     9945    10060      55.      55.      55.
X2                     1.     1899.   1898.6                                    15
K3    10                                          1899.0  1899.0
BT    17     6430   1904.0                6820   1902.0                7810   1900.0
BT  7970   1899.9                8085   1899.7                8220   1899.7                8530
BT1898.5                8800   1898.6                9140   1898.1                9695   1899.
BT           9795   1899.             9895   1899.             9995   1899.
BT 10075   1899.             10320   1900.0             10870   1902.0             11270
BT1904.0
GR1904.0     6430   1902.0     6920   1900.0     7810   1899.9     7970   1899.7     8085
GR1899.7     8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9625
GR1896.0     9935   1890.0     9945   1886.0     9970   1885.5     9975   1885.5    10025
GR1886.0    10035   1890.0    10060   1896.0    10070   1898.0    10090   1900.0    10290
GR1902.0    10850   1904.0    11300
X1 10.70       23     9945    10060      15.      15.      15.
X2                                                                        15
K3    10                                          1898.6  1898.6
GR1906.0     6210   1904.0     6560   1903.9     6805   1902.0     7235   1903.1     7380
GR1903.0     7680   1902.8     8185   1902.      8465   1900.      9160   1898.      9560
GR 1898.     9900   1890.      9945   1886.      9965   1885.5     9975   1885.5    10025
GR 1886.    10035   1890.     10060   1890.     10075   1898.     10145   1900.0    10235
GR1902.0    10805   1904.0    11205   1906.0    11575
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SB  1.25     1.56      2.8                 70.        5   1194.8      1.74   1885.5   1885.5
X1 10.71                                   60.       60.      60.
X2                          1.    1899.   1899.5                                        15
X3    10                                                  1899.0   1899.0
BT    19     6210   1906.0                5560   1904.0              6805   1903.9
BT  7285   1902.0                7380   1903.1              7680   1903.0              8185
BT1902.8                 8465   1902.0                8045   1901.9              9160   1900.0
BT             9535   1899.6                9930   1899.5             10100   1899.5
BT 10200   1899.9               10235   1900.0             10400   1900.9             10805
BT1902.0                11205   1904.0                11575   1906.0
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     30
  10.34        SECNO=River Mileage above Advanced Wastewater Treatment Plant
  10.34        Centerline Station at 10000
  10.34        Reduced 25-year flow by 900 cfs due to divided flow at x10.46 and
  10.34           x10.49 (rejoins main channel at x 10.15)
  10.46        Centerline Station at 10000
  10.49        Centerline Station at 5188
  10.54        Centerline Station at 10000
  10.55        **** Civic Center Drive (new structure) ****
  10.55        Normal Bridge
  10.55        1* Debris Load
  10.55        Centerline Station at 10000
  10.62        Centerline Station at 10000
 10.627        Centerline Station at 10000
 10.634        Centerline Station at 10000
 10.642        Centerline Station at 10000
 10.649        Centerline Station at 10000
 10.650        Centerline Station at 10000
 10.657        Centerline Station at 10000
 10.658        **** Drop Structure ****
 10.658        Centerline Station at 10000
 10.665        Centerline Station at 10000
 10.686        Centerline Station at 10000
 10.697        **** I-15 North ****
 10.697        2* Debris Load
 10.697        Centerline Station at 10000
  10.70        Centerline Station at 10000
  10.71        **** I-15 South ****
  10.71        2* Debris Load
  10.71        Centerline Station at 10000
  10.74        Centerline Station at 2355
T1             CCRFCD/COE OVERFLOW STUDY
T2             JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3             LAS VEGAS WASH - 25-YEAR
J1                  2                   -1
J2    -1                 -1
J3   150
ET     1     5300
NC                                0.1       0.3
NH     5     0.04     6660     0.10     8790    0.042     9965    0.035    10055    0.037
NH 10835
ET                 7.1                                    9965
X1 10.34        53     9965    10055      450      420      450                              15
X2
GR1888.0     6015   1886.0     6025   1884.0     6075   1882.0     6295   1880.0     6315
GR1878.9     6420   1880.0     6480   1883.0     6505   1880.0     6515   1876.0     6535
GR1876.0     6545   1882.0     6560   1884.0     6660   1886.0     6925   1884.0     7025
GR1884.0     7110   1886.0     7210   1886.0     7320   1884.0     7380   1884.0     7445
GR1882.0     7460   1881.3     7480   1882.0     7505   1884.0     7670   1882.0     7685
GR1882.0     7775   1884.0     7805   1884.2     7900   1884.0     8035   1882.7     8100
GR1884.0     8170   1884.3     8215   1884.0     8270   1882.0     8390   1881.6     8450
GR1882.0     8500   1882.0     8600   1882.0     8790   1881.6     8875   1882.0     8975
GR1882.0     9185   1881.6     9635   1882.0     9775   1882.0     9955   1872.0     9995
GR1872.0    10030   1880.0    10055   1882.0    10190   1882.0    10310   1884.0    10350
GR1884.8    10575   1886.0    10510   1888.0    10835
NH     4     0.10     8095    0.042     9905    0.035    10020    0.037    10575
ET                 7.1                                    9870
X1 10.46        28     9905    10020      600      700      600                              15
X2
GR1890.0     7310   1886.0     7375   1886.0     7420   1888.0     7445   1888.0     7680
GR1888.0     8095   1888.0     8515   1887.2     8750   1886.0     8925   1886.0     8975
GR1886.6     9215   1886.0     9390   1884.0     9450   1883.3     9695   1884.0     9815
GR1885.1     9870   1884.0     9880   1882.0     9900   1880.0     9915   1878.0     9970
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GR1576.1   10090   1878.0   10010   1880.0   10020   1882.0   10075   1884.0   10155
GR1886.0   10275   1888.0   10425   1890.0   10575
BT     1    6200
VC 0.042   0.037   0.035
ET             7.1                                    8075
X1 10.49       27    9975    10015     250      140     170                              15
X2
GR1892.0    7615   1886.0    7635   1886.0    7650   1888.0    7680   1890.0    7890
GR1890.6    8075   1890.0    8505   1888.0    8975   1888.0    9215   1886.0    9420
GR1884.0    9640   1884.0    9860   1884.1    9890   1884.0    9925   1880.0    9935
GR1880.0    9975   1878.0    9955   1877.0   10000   1878.0   10005   1880.0   10015
GR1884.0   10035   1894.0   10170   1886.0   10260   1886.0   10325   1886.0   10360
GR1890.0   10430   1892.0   10705
VC                     0.3     0.5
X1 10.54       33    9934    10077     270.     220.     260.
X3    10                                                 1887.0   1888.5
BT     9    9450   1890.7   1890.7    9480   1891.6   1890.0    9520   1890.0   1888.0
BT  9700   1888.5   1886.0    9934   1887.7   1886.0   9938.9   1887.7   1885.7  10061.1
BT1886.8   1885.7   10077   1889.0   1886.0   10225   1890.0   1890.0
GR1894.0    7630   1892.0    7735   1890.0    7800   1888.0   7825.0   1888.0    7875
GR1890.0    7950   1892.0    7990   1892.0    8410   1890.0    8940   1890.0    9380
GR1890.7    9450   1890.     9480   1888.     9520   1886.     9700   1886.0    9934
GR1885.7   9938.9   1881.9   9939   1877.8    9956   1877.8   9974.5   1885.7   9974.6
GR1885.7   9977.5   1877.8   9977.6   1877.8  10022.5   1885.7  10022.6   1885.7  10025.3
GR1877.8  10025.4   1877.8  10043.8   1881.9   10061   1885.7  10061.1   1888.0   10077
GR 1890.   10225    1892.   10680    1894.0   11050
X1 10.55       38    9928    10075      82.      82.      82.
X3    10                                                 1887.2   1889.0
BT     8    9505   1890.0   1890.0    9565   1888.8   1888.0    9825   1888.0   1886.1
BT  9928   1887.2   1886.0   9938.9   1887.7   1885.9  10061.1   1888.8   1885.9   10075
BT1889.0   1888.0   10210   1890.0   1890.0
GR1896.0    7505   1894.0    7645   1892.0    7735   1890.0    7780   1888.0    7805
GR1888.0    7835   1890.0    7990   1892.0    7980   1893.1    8260   1892.0    8595
GR1890.0    8910   1890.0    9210   1892.0    9290   1890.0    9345   1890.7    9475
GR 1890.    9505    1888.    9565   1886.1    9825.   1886.0    9928   1885.9   9938.9
GR1882.1    9939   1878.0    9956   1878.0   9974.5   1885.9   9974.6   1885.9   9977.5
GR1878.0   9977.6   1878.0  10022.5   1885.9  10022.6   1885.9  10025.3   1878.0  10025.4
GR1878.0  10043.8   1882.1   10061   1885.9  10061.1   1888.0   10075    1890.    10210
GR 1892.   10665   1894.0   11030   1896.0   11380
VH     7   0.037    9849    0.035    9966    0.025   10020    0.035   10095    0.037
VH10100     0.10   11100    0.035   11275
ET             7.1                                    9391
K1 10.62       35    9966    10020     320      245     335
K2                                                                                    15
GR1898.0    7620   1896.0    7630   1894.0    7665   1892.5    7710   1894.0    7795
GR1894.0    7885   1896.0    7975   1897.3    8035   1896.0    8109   1894.0    8429
GR1893.0    8549   1894.0    9104   1896.0    9139   1896.0    9204   1894.5    9224
GR1893.7    9275   1894.4    9308   1893.7    9359   1894.2    9391   1893.2    9554
GR1892.5    9849   1892.0    9951   1892.0    9936   1891.7    9966   1875.7   9997.5
GR1875.7  10002.5   1884.2   10020   1890.0   10082   1892.0   10095   1894.0   10100
GR1894.0   10255   1896.8   10590   1896.0   10805   1898.0   11100   1900.0   11275
VH     5   0.037    9965    0.025   10020    0.037   10068     0.10   11050    0.037
VH 11390
ET             7.1                                    9605
X110.627       35    9965    10020      62       62      62
GR1898.8    7500   1898.0    7605   1896.0    7635   1894.0    7670   1892.9    7705
GR1894.0    7775   1894.0    7880   1896.0    7975   1897.5    8035   1896.0    8130
GR1894.0    8450   1893.4    8540   1894.0    8970   1896.0    9145   1898.0    9175
GR1896.0    9265   1896.0    9605   1894.3    9695   1892.0    9740   1892.4    9965
GR1875.9   9997.5   1875.9  10002.5   1884.4   10020   1885.0   10050   1886.0   10060
GR1887.0   10068    1890.0   10095    1892.0   10095   1894.0   10105   1894.0   10255
GR1896.0   10540    1896.0   10810    1898.0   11050   1900.0   11250   1902.0   11390
VH     5   0.037    9935    0.025   10060    0.037   10100     0.10   11045    0.037
VH11375
ET             7.1                                    9195
X110.634       33    9935    10060      38       38      38
GR1898.9    7525   1898.0    7630   1896.0    7660   1894.0    7685   1893.1    7715
GR1894.0    7785   1894.0    7895   1896.0    7990   1897.7    8045   1896.0    8150
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GR1894.0	8470	1893.6	9540	1894.0	8940	1896.0	9160	1898.0	9195
GR1896.0	9605	1894.9	9685	1892.3	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10805
GR1898.0	11045	1900.0	11155	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					9435			
K110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7890	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8825	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9680	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					9485			
K110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
K110.650	34	9956.9	10043.1	1	1	1			
K3 10									
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1889.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1889.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
NH 5	0.037	9941	0.018	10066	0.037	10135	0.10	10735	0.037
NH 11355									
K110.657	37	9956.9	10043.1	41	41	41			
K3 10									
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1876.9	9957	1876.5	10000	1876.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10068	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
K110.658	37	9956.9	10043.1	1	1	1			
K3 10									
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1884.9	9957	1884.5	10000	1884.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10068	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
NH 3	0.037	9940	0.018	10073	0.037	11345			
X110.665	34	9940	10060	40	40	40			
K3 10									
GR1899.2	7480	1898.0	7530	1896.0	7685	1896.0	7935	1898.0	8015
GR1898.9	8065	1898.0	8125	1896.0	8220	1895.5	8510	1896.0	8960
GR1898.0	9205	1900.0	9365	1900.0	9455	1898.0	9545	1896.0	9680
GR1894.8	9750	1892.0	9871	1889.8	9894	1894.3	9940	1894.8	9945
GR1884.8	9965	1894.5	10000	1884.8	10035	1894.8	10055	1894.3	10060
GR1891.3	10067	1890.3	10070	1891.3	10073	1892.0	10130	1894.0	10140
GR1896.0	10640	1898.0	10975	1900.0	11105	1902.0	11345		

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NC 0.037    0.037    0.025
X110.686        23     9940    10060      115       90      113
X2                                                                      15
X3     10                                          1898.6   1898.6
GR1904.0      6430   1902.0     6820   1900.0     7810   1899.9     7970   1899.7     8085
GR1899.7      8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9700
GR1898.0      9915   1896.0     9935   1894.3     9940   1885.1     9960   1884.7    10000
GR1885.1     10040   1894.3    10060   1896.0    10070   1898.0    10100   1898.0    10450
GR1900.0     10900   1902.0    11360   1904.0    11500
SB  1.25      1.56      2.8                70.        5   1194.8     1.74   1885.5   1885.1
NC 0.037    0.037    0.035
X110.697        22     9945    10060       55.       55.      55.
X2                      1.     1895.   1898.6                                   15
X3     10                                          1899.0   1899.0
BT     17     6430   1904.0                6820   1902.0                7810   1900.0
BT   7970   1899.9                8085   1899.7                8220   1899.7                8530
BT1898.5                8800   1898.6                9140   1898.1                9695   1899.
BT            9795   1899.              9895   1899.              9995   1899.
BT 10075   1899.              10320   1900.0              10870   1902.0              11270
BT1904.0
GR1904.0      6430   1902.0     6820   1900.0     7810   1899.9     7970   1899.7     8085
GR1899.7      8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9625
GR1896.0      9935   1890.0     9945   1896.0     9970   1885.5     9975   1885.5    10025
GR1886.0     10035   1890.0    10060   1896.0    10070   1898.0    10090   1900.0    10290
GR1902.0     10950   1904.0    11300
X1 10.70        23     9945    10060       15.       15.      15.
X2                                                                      15
X3     10                                          1898.6   1898.6
GR1906.0      6210   1904.0     6560   1903.9     6805   1902.0     7285   1903.1     7380
GR1903.0      7680   1902.8     8185   1902.      8465   1900.      9150   1898.      9560
GR 1898.      9900   1890.      9945   1886.      9965   1885.5     9975   1885.5    10025
GR 1886.     10035   1890.     10060   1890.     10075   1898.     10145   1900.0    10235
GR1902.0     10935   1904.0    11205   1906.0    11575
SB  1.25      1.56      2.8                70.        5   1194.8     1.74   1885.5   1885.5
X1 10.71                                 60.       60.      60.
X2                      1.     1895.   1899.5                                   15
X3     10                                          1899.0   1899.0
BT     19     6210   1906.0                6560   1904.0                6805   1903.9
BT   7285   1902.0                7380   1903.1                7680   1903.0                8185
BT1902.8                8465   1902.0                9045   1901.9                9160   1900.0
BT            9535   1899.6              9930   1899.5              10100   1899.5
BT 10200   1899.9             10235   1900.0              10400   1900.9              10805
BT1902.0             11205   1904.0             11575   1906.0
EJ


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EOF..
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1**********
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 29-APR-88 TIME 12:58:41 *
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****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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29-APR-88 12:58:41

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HEC2 RELEASE DATED NOV 75 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - NONDAMAGING FLOWS

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	-1.000000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.000	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9565.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9565.000	0.000	0.000	0.000
X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1885.000	6015.000	1886.000	6025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.000	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000

GR	1854.300	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8575.000
GR	1882.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9955.000
GR	1872.000	10030.000	1890.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.300	10675.000	1886.000	10910.000	1888.000	10835.000	0.000	0.000	0.000	0.000
NH	4.000	0.100	8055.000	0.042	9905.000	0.035	10020.000	0.037	10575.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9870.000	0.000	0.000	0.000
X1	10.450	28.000	9905.000	10020.000	600.000	700.000	600.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1890.000	7310.000	1886.000	7375.000	1886.000	7420.000	1888.000	7445.000	1888.000	7680.000
GR	1888.000	8095.000	1888.000	8515.000	1887.200	8750.000	1886.000	8925.000	1886.000	8975.000
GR	1886.600	9215.000	1886.000	9390.000	1884.000	9450.000	1883.300	9695.000	1884.000	9815.000
GR	1885.100	9870.000	1884.000	9880.000	1882.000	9900.000	1880.000	9905.000	1878.000	9970.000
GR	1876.100	10000.000	1878.000	10010.000	1880.000	10020.000	1882.000	10075.000	1884.000	10155.000
GR	1886.000	10275.000	1888.000	10425.000	1890.000	10575.000	0.000	0.000	0.000	0.000

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NC	0.042	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8075.000	0.000	0.000	0.000
X1	10.490	27.000	9925.000	10035.000	250.000	140.000	170.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1892.000	7615.000	1886.000	7635.000	1886.000	7650.000	1888.000	7680.000	1890.000	7890.000
GR	1890.600	8075.000	1890.000	8505.000	1888.000	8975.000	1889.000	9215.000	1886.000	9420.000
GR	1884.000	9640.000	1884.000	9860.000	1884.100	9890.000	1884.000	9925.000	1880.000	9935.000
GR	1880.000	9975.000	1878.000	9995.000	1877.000	10000.000	1878.000	10005.000	1880.000	10015.000
GR	1884.000	10035.000	1884.000	10170.000	1886.000	10260.000	1886.000	10325.000	1888.000	10360.000
GR	1890.000	10430.000	1892.000	10705.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	10.540	33.000	9934.000	10077.000	270.000	220.000	260.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1887.000	1888.500	0.000
BT	9.000	9450.000	1890.700	1890.700	9480.000	1891.600	1890.000	9520.000	1890.000	1888.000
BT	9700.000	1889.500	1886.000	9934.000	1887.700	1886.000	9938.900	1887.700	1885.700	10061.100
BT	1888.800	1885.700	10077.000	1889.000	1888.000	10225.000	1890.000	1890.000	0.000	0.000
GR	1894.000	7630.000	1892.000	7735.000	1890.000	7800.000	1888.000	7825.000	1888.000	7875.000
GR	1890.000	7950.000	1892.000	7990.000	1892.000	8410.000	1890.000	8540.000	1890.000	9380.000
GR	1890.700	9450.000	1890.000	9480.000	1888.000	9520.000	1886.000	9700.000	1886.000	9934.000
GR	1885.700	9938.900	1881.900	9939.000	1877.800	9956.000	1877.800	9974.500	1885.700	9974.600
GR	1885.700	9977.500	1877.800	9977.600	1877.800	10022.500	1885.700	10022.600	1885.700	10025.300
GR	1877.800	10025.400	1877.800	10043.800	1881.900	10061.000	1885.700	10061.100	1888.000	10077.000
GR	1890.000	10225.000	1892.000	10690.000	1894.000	11050.000	0.000	0.000	0.000	0.000
X1	10.550	38.000	9928.000	10075.000	82.000	82.000	82.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1887.200	1889.000	0.000
BT	8.000	9505.000	1890.000	1890.000	9565.000	1888.800	1888.000	9825.000	1888.000	1886.100
BT	9928.000	1887.200	1886.000	9938.900	1887.700	1885.900	10061.100	1888.800	1885.500	10075.000
BT	1889.000	1888.000	10210.000	1890.000	1890.000	0.000	0.000	0.000	0.000	0.000
GR	1896.000	7505.000	1894.000	7645.000	1892.000	7735.000	1890.000	7780.000	1888.000	7805.000
GR	1888.000	7835.000	1890.000	7890.000	1892.000	7980.000	1893.100	8260.000	1892.000	8595.000
GR	1890.000	8910.000	1890.000	9210.000	1892.000	9290.000	1890.000	9345.000	1890.700	9475.000
GR	1890.000	9505.000	1888.000	9565.000	1886.100	9825.000	1886.000	9928.000	1885.900	9938.900
GR	1882.100	9939.000	1878.000	9956.000	1878.000	9974.500	1885.900	9974.600	1885.900	9977.500
GR	1878.000	9977.600	1878.000	10022.500	1885.900	10022.600	1885.900	10025.300	1878.000	10025.400
GR	1878.000	10043.800	1882.100	10061.000	1885.900	10061.100	1888.000	10075.000	1890.000	10210.000
GR	1892.000	10665.000	1894.000	11030.000	1896.000	11380.000	0.000	0.000	0.000	0.000
NH	7.000	0.037	9849.000	0.035	9966.000	0.025	10020.000	0.035	10095.000	0.037
NH	10100.000	0.100	11100.000	0.035	11275.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9391.000	0.000	0.000	0.000
X1	10.520	35.000	9966.000	10020.000	320.000	245.000	335.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1898.000	7620.000	1896.000	7630.000	1894.000	7665.000	1892.500	7710.000	1894.000	7795.000
GR	1894.000	7885.000	1896.000	7975.000	1897.300	8035.000	1896.000	8109.000	1894.000	8429.000
GR	1893.000	8549.000	1894.000	9104.000	1896.000	9139.000	1896.000	9204.000	1894.500	9224.000

GR	1893.700	9275.000	1894.400	9308.000	1893.700	9359.000	1894.200	9391.000	1893.200	9554.000
GR	1892.500	9849.000	1892.000	9891.000	1892.000	9936.000	1891.700	9966.000	1875.700	9997.500
GR	1875.700	10002.500	1884.200	10020.000	1890.000	10082.000	1892.000	10095.000	1894.000	10100.000
GR	1894.000	10255.000	1896.800	10590.000	1896.000	10805.000	1898.000	11100.000	1900.000	11275.000

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NH	5.000	0.037	9965.000	0.025	10020.000	0.037	10068.000	0.100	11050.000	0.037
NH	11390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9605.000	0.000	0.000	0.000
X1	10.627	35.000	9965.000	10020.000	62.000	62.000	62.000	0.000	0.000	0.000
GR	1898.800	7500.000	1898.000	7605.000	1896.000	7635.000	1894.000	7670.000	1892.900	7705.000
GR	1894.000	7775.000	1894.000	7880.000	1896.000	7975.000	1897.500	8035.000	1896.000	8130.000
GR	1894.000	8450.000	1893.400	8540.000	1894.000	8970.000	1896.000	9145.000	1898.000	9175.000
GR	1896.000	9265.000	1895.000	9605.000	1894.000	9695.000	1892.000	9740.000	1892.400	9965.000
GR	1875.900	9997.500	1875.900	10002.500	1884.400	10020.000	1885.000	10050.000	1886.000	10060.000
GR	1887.000	10068.000	1890.000	10085.000	1892.000	10095.000	1894.000	10105.000	1894.000	10255.000
GR	1896.000	10540.000	1896.000	10810.000	1898.000	11050.000	1900.000	11250.000	1902.000	11390.000
NH	5.000	0.037	9935.000	0.025	10060.000	0.037	10100.000	0.100	11045.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9195.000	0.000	0.000	0.000
X1	10.634	33.000	9935.000	10060.000	38.000	38.000	38.000	0.000	0.000	0.000
GR	1898.900	7525.000	1893.000	7630.000	1896.000	7660.000	1894.000	7685.000	1893.100	7715.000
GR	1894.000	7785.000	1894.000	7895.000	1896.000	7990.000	1897.700	8045.000	1896.000	8150.000
GR	1894.000	8470.000	1893.600	8540.000	1894.000	8940.000	1896.000	9160.000	1898.000	9195.000
GR	1896.000	9605.000	1894.000	9685.000	1892.000	9770.000	1891.400	9935.000	1876.400	9965.000
GR	1876.100	10000.000	1876.400	10035.000	1887.000	10060.000	1888.000	10068.000	1890.000	10090.000
GR	1892.000	10100.000	1894.000	10110.000	1894.000	10245.000	1896.000	10545.000	1896.000	10805.000
GR	1898.000	11045.000	1900.000	11195.000	1902.000	11375.000	0.000	0.000	0.000	0.000
NH	5.000	0.037	9935.000	0.018	10055.000	0.037	10105.000	0.100	10975.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9435.000	0.000	0.000	0.000
X1	10.642	34.000	9935.000	10055.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.300	7600.000	1898.000	7655.000	1896.000	7665.000	1894.000	7680.000	1893.500	7710.000
GR	1894.000	7760.000	1894.500	7890.000	1896.000	7990.000	1898.000	8050.000	1896.000	8165.000
GR	1894.000	8525.000	1894.000	8825.000	1896.000	9155.000	1898.000	9195.000	1898.000	9435.000
GR	1896.000	9590.000	1894.000	9680.000	1889.500	9935.000	1886.500	9945.000	1876.500	9965.000
GR	1876.200	10000.000	1876.500	10035.000	1886.500	10055.000	1887.000	10056.000	1888.000	10064.000
GR	1890.000	10072.000	1892.000	10105.000	1894.000	10120.000	1894.000	10220.000	1896.000	10330.000
GR	1896.000	10550.000	1898.000	10975.000	1900.000	11120.000	1902.000	11375.000	0.000	0.000
NH	5.000	0.037	9945.000	0.018	10058.000	0.037	10083.000	0.100	10975.000	0.037
NH	11380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9485.000	0.000	0.000	0.000
X1	10.649	34.000	9956.900	10043.100	39.000	39.000	39.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1898.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000

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X1	10.650	34.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1898.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1889.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1889.300	10043.100	1886.500	10048.000	1887.000	10058.000

GR	1898.000	10061.000	1898.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000
NH	5.000	0.037	9941.000	0.018	10066.000	0.037	10135.000	0.100	10735.000	0.037
NH	11355.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.557	37.000	9956.900	10043.100	41.000	41.000	41.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1899.300	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1858.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1876.900	9957.000	1876.500	10000.000	1876.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1889.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.558	37.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1899.300	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1858.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1884.900	9957.000	1884.500	10000.000	1884.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1889.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	0.037	9940.000	0.018	10073.000	0.037	11345.000	0.000	0.000	0.000
X1	10.565	34.000	9940.000	10060.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1899.200	7480.000	1898.000	7530.000	1896.000	7685.000	1896.000	7935.000	1898.000	8015.000
GR	1898.900	8065.000	1898.000	8125.000	1896.000	8220.000	1895.500	8510.000	1896.000	8960.000
GR	1898.000	9205.000	1900.000	9365.000	1900.000	9455.000	1898.000	9545.000	1896.000	9680.000
GR	1894.000	9750.000	1892.000	9871.000	1889.800	9894.000	1894.300	9940.000	1894.800	9545.000
GR	1884.300	9965.000	1884.500	10000.000	1884.800	10035.000	1894.800	10055.000	1894.300	10060.000
GR	1891.300	10067.000	1890.300	10070.000	1891.300	10073.000	1892.000	10130.000	1894.000	10140.000
GR	1896.000	10640.000	1898.000	10975.000	1900.000	11105.000	1902.000	11345.000	0.000	0.000
NC	0.037	0.037	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.686	23.000	9940.000	10060.000	115.000	90.000	113.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1898.600	1898.600	0.000
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1899.700	8085.000
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1898.000	9700.000
GR	1898.000	9915.000	1896.000	9935.000	1894.300	9940.000	1885.100	9960.000	1884.700	10000.000
GR	1885.100	10040.000	1894.300	10060.000	1896.000	10070.000	1898.000	10100.000	1898.000	10450.000

GR	1900.000	10800.000	1902.000	11360.000	1904.000	11500.000	0.000	0.000	0.000	0.000
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.100
NC	0.037	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.597	22.000	9945.000	10060.000	55.000	55.000	55.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	1899.000	1898.600	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1899.000	1899.000	0.000
BT	17.000	6430.000	1904.000	0.000	6820.000	1902.000	0.000	7810.000	1900.000	0.000
BT	7970.000	1899.900	0.000	8085.000	1899.700	0.000	8220.000	1899.700	0.000	8530.000
BT	1898.500	0.000	8800.000	1898.600	0.000	9140.000	1898.100	0.000	9695.000	1899.000
BT	0.000	9795.000	1899.000	0.000	9895.000	1899.000	0.000	9995.000	1899.000	0.000
BT	10075.000	1899.000	0.000	10320.000	1900.000	0.000	10870.000	1902.000	0.000	11270.000
BT	1904.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1899.700	8085.000
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1898.000	9625.000
GR	1896.000	9935.000	1890.000	9945.000	1886.000	9970.000	1885.500	9975.000	1885.500	10025.000
GR	1886.000	10035.000	1890.000	10060.000	1896.000	10070.000	1898.000	10090.000	1900.000	10290.000
GR	1902.000	10850.000	1904.000	11300.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	10.700	23.000	9945.000	10060.000	15.000	15.000	15.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1898.600	1898.600	0.000
GR	1906.300	6210.000	1904.800	6560.000	1903.900	6805.000	1902.000	7285.000	1903.100	7380.000
GR	1903.300	7680.000	1902.800	8185.000	1902.000	8465.000	1900.000	9160.000	1898.000	9560.000
GR	1898.300	9900.000	1890.000	9945.000	1886.000	9965.000	1885.500	9975.000	1885.500	10025.000
GR	1886.300	10035.000	1890.000	10060.000	1890.000	10075.000	1898.000	10145.000	1900.000	10235.000
GR	1902.000	10805.000	1904.000	11205.000	1906.000	11575.000	0.000	0.000	0.000	0.000
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.500
X1	10.710	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	1899.000	1899.500	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1899.000	1899.000	0.000
BT	19.000	6210.000	1906.000	0.000	6560.000	1904.000	0.000	6805.000	1903.900	0.000
BT	7285.000	1902.000	0.000	7380.000	1903.100	0.000	7680.000	1903.000	0.000	8185.000
BT	1902.300	0.000	8465.000	1902.000	0.000	9945.000	1901.900	0.000	9160.000	1900.000
BT	0.000	9535.000	1899.600	0.000	9930.000	1899.500	0.000	10100.000	1899.500	0.000
BT	10200.000	1899.900	0.000	10235.000	1900.000	0.000	10400.000	1900.900	0.000	10805.000
BT	1902.000	0.000	11205.000	1904.000	0.000	11575.000	1906.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 10.340
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	9965.0	10835.0	TYPE=	1	TARGET=	-9965.000			
10.34	2.69	1874.69	1874.69	0.00	1875.84	1.14	0.00	0.00	1882.00
1000.	0.	1000.	0.	0.	117.	0.	0.	0.	1880.00
0.00	0.00	8.58	0.00	0.000	0.035	0.037	0.000	1872.00	9986.92
0.014069	450.	450.	420.	0	52	0	0.00	51.50	10038.42

3
FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1874.69

STA= 9987. 10055.
PER Q= 100.0
AREA= 116.5
VEL= 8.6

1490 NH CARD USED
*SECNO 10.460

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	9873.0	10575.0	TYPE=	1	TARGET=	-9870.000			
10.46	4.13	1880.23	0.00	0.00	1880.55	0.32	4.63	0.08	1880.00
1000.	0.	1000.	0.	0.	220.	1.	2.	1.	1880.00
0.04	0.02	4.55	0.57	0.042	0.035	0.037	0.000	1876.10	9904.42
0.004865	600.	600.	700.	5	0	0	0.00	121.98	10026.40

3
FLOW DISTRIBUTION FOR SECNO= 10.46 CWSEL= 1880.23

STA= 9904. 9905. 10020. 10026.

```
  PER Q=        0.0      100.0        0.1
   AREA=        0.1      219.8        0.7
    VEL=        0.3        4.5        0.7

I
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

  *SECNO 10.490

  3470 ENCROACHMENT STATIONS=    8075.0   10705.0  TYPE=     1  TARGET=   -8075.000
      10.49      4.20  1881.20      0.00      0.00  1881.83      0.64      1.19      0.09   1884.00
      1000.        0.     1000.        3.        0.      156.        3.        3.        2.    1884.00
       0.04      0.00      6.41      0.30     0.042     0.035     0.037     0.000  1877.00   9932.01
  0.010904       250.      170.      140.         3         0         0      0.00    88.97  10020.98
)
  FLOW DISTRIBUTION FOR SECNO=     10.49          CWSEL=   1881.20

  STA=    9932.    10035.
    PER Q=    100.0
     AREA=    156.1
      VEL=      6.4

  CCHV=   0.300 CEHV=   0.500
  *SECNO 10.540

  3265 DIVIDED FLOW

  3301 HV CHANGED MORE THAN HVINS

  3370 NORMAL BRIDGE,NRD=  9 MIN ELTRD= 1887.70 MAX ELLC= 1890.70

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1887.00 ELREA=     1888.50

      10.54      4.50  1882.30      0.00      0.00  1882.38      0.08      0.38      0.17   1886.00
      1000.        0.     1000.        3.        0.      453.        3.        5.        2.    1888.00
       0.08      0.00      2.21      0.00     0.042     0.035     0.037     0.000  1877.80   9938.99
  0.000543       270.      260.      220.         3         0         0      0.00   116.25  10061.01
)
  *SECNO 10.550
  3265 DIVIDED FLOW

  3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD= 1887.20 MAX ELLC= 1890.00

1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1887.20 ELREA=     1889.00
```

```
    10.59      4.35   1882.35      0.00      0.00   1882.43      0.08      0.85      0.00   1886.00
    1000.        0.      1000.        0.        0.       434.        0.        6.        2.   1868.00
      0.09      0.00      2.30      0.00     0.042     0.035     0.037     0.000   1878.00   9938.99
 0.000618        82.       82.       82.         2         0         0      0.00    116.23  10061.01
0
 1490 NH CARD USED
 *SECNO 10.620

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     9391.0    11275.0   TYPE=       1   TARGET=    -9391.000
    10.62      6.57   1882.27      0.00      0.00   1883.35      1.08      0.42      0.50   1891.70
    1000.        0.      1000.        0.        0.       120.        0.        8.        3.   1884.20
      0.10      0.00      8.35      0.00     0.042     0.025     0.037     0.000   1875.70   9984.56
 0.003758         320.      335.      245.         2         0         0      0.00     31.46  10016.03
0
 FLOW DISTRIBUTION FOR SECNO=      10.62          CWSEL=   1882.27

 STA=    9935.    10020.
   PER Q=    100.0
    AREA=    119.8
     VEL=      8.3

 1490 NH CARD USED
 *SECNO 10.627

 3470 ENCROACHMENT STATIONS=     9605.0    11390.0   TYPE=       1   TARGET=    -9605.000
    10.63      6.65   1882.55      0.00      0.00   1883.59      1.04      0.23      0.01   1892.40
    1000.        0.      1000.        0.        0.       122.        1.        8.        3.   1884.40
      0.10      0.00      8.19      0.00     0.042     0.025     0.037     0.000   1875.50   9984.42
 0.003575         62.       62.       62.         3         0         0      0.00     31.76  10016.17
0
 1490 NH CARD USED
 *SECNO 10.634
1
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         QLOSS     BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        ARCB       VOL        TWA     LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IOC        ICONT      CORAR      TOPWID       ENDST


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     9195.0    11375.0   TYPE=       1   TARGET=    -9195.000
    10.63      7.76   1883.86      0.00      0.00   1883.90      0.04      0.01      0.30   1891.40
    1000.        0.      1000.        0.        0.       654.        0.        8.        3.   1887.00
      0.11      0.00      1.53      0.00     0.042     0.025     0.037     0.000   1876.10   9950.07
 0.000058         38.       38.       38.         2         0         0      0.00    102.53  10052.60
0
 1490 NH CARD USED
 *SECNO 10.642

 3470 ENCROACHMENT STATIONS=     9435.0    11375.0   TYPE=       1   TARGET=    -9435.000
    10.64      7.66   1883.86      0.00      0.00   1883.90      0.04      0.00      0.00   1889.50
    1000.        0.      1000.        0.        0.       634.        0.        9.        3.   1886.50
      0.11      0.00      1.58      0.00     0.042     0.018     0.037     0.000   1876.20   9950.28
 0.000032         40.       40.       40.         2         0         0      0.00     59.45  10049.72
0
 1490 NH CARD USED
 *SECNO 10.649

 3470 ENCROACHMENT STATIONS=     9485.0    11380.0   TYPE=       1   TARGET=    -9485.000
```

10.65	7.56	1883.86	0.00	0.00	1883.90	0.04	0.00	0.00	1886.30	
1000.	0.	1000.	0.	0.	629.	0.	10.	3.	1886.30	
0.12	0.00	1.59	0.00	0.042	0.018	0.037	0.000	1876.30	9956.93	
0.000032	39.	39.	39.	0	0	0	0.00	86.15	10043.07	

*SECNO 10.650

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1889.30 ELREA= 1889.30

10.65	7.56	1883.86	0.00	0.00	1883.90	0.04	0.00	0.00	1889.30
1000.	0.	1000.	0.	0.	629.	0.	10.	3.	1889.30
0.12	0.00	1.59	0.00	0.042	0.018	0.037	0.000	1876.30	9956.94
0.000032	1.	1.	1.	0	0	0	0.00	86.11	10043.06

1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.657

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1894.50 ELREA= 1894.50

10.66	7.36	1883.86	0.00	0.00	1883.90	0.04	0.00	0.00	1894.50
1000.	0.	1000.	0.	0.	616.	0.	10.	3.	1894.50
0.13	0.00	1.62	0.00	0.042	0.018	0.037	0.000	1876.50	9956.96
0.000034	41.	41.	41.	0	0	0	0.00	86.08	10043.04

*SECNO 10.658

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSE
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1894.50 ELREA= 1894.50

10.66	1.80	1886.30	1886.30	0.00	1887.12	0.82	0.00	0.39	1894.50
1000.	0.	1000.	3.	0.	138.	1.	10.	3.	1894.50
0.13	0.00	7.27	0.00	0.042	0.018	0.037	0.000	1884.50	9956.99
0.004325	1.	1.	1.	20	11	0	0.00	86.03	10043.01

1490 NH CARD USED
*SECNO 10.665
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1894.30 ELREA= 1894.30

10.66	1.97	1886.47	1886.47	0.00	1887.35	0.88	0.17	0.03	1894.30
1000.	0.	1000.	0.	0.	133.	0.	10.	3.	1894.30
0.13	0.00	7.52	0.00	0.042	0.018	0.037	0.000	1884.50	9961.66
0.004029	40.	40.	40.	2	8	0	0.00	76.66	10038.34

*SECNO 10.686

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1898.60 ELREA= 1898.60

10.69	2.79	1887.49	0.00	0.00	1887.81	0.32	0.30	0.17	1894.30
1000.	0.	1000.	0.	0.	219.	0.	11.	4.	1894.30
0.14	0.00	4.57	0.00	0.037	0.025	0.037	0.000	1884.70	9954.82
0.001840	115.	113.	90.	3	0	0	0.00	90.36	10045.18

FLOW DISTRIBUTION FOR SECNO= 10.69 CWSEL= 1887.49

STA= 9955. 10060.
PER Q= 100.0
AREA= 219.0
VEL= 4.6

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	ROLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.50	1.74	1885.50	1885.10

*SECNO 10.697
CLASS A LOW FLOW

3420 BRIDGE W.S.= 1887.50 BRIDGE VELOCITY=, 6.60 CALCULATED CHANNEL AREA=, 137.

EGPRS	EGLWC	FR	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD
0.00	1888.30	0.11	0.	1000.	1195.	1195.	1899.00	1898.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1899.00 ELREA= 1899.00

10.70	2.10	1887.60	0.00	0.00	1888.30	0.70	0.49	0.00	1890.00
1000.	0.	1000.	0.	0.	148.	0.	11.	4.	1890.00
0.14	0.00	6.74	0.00	0.037	0.035	0.037	0.000	1885.50	9960.02
0.012013	55.	55.	55.	0	0	0	0.00	84.96	10044.98

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1887.60

STA= 9950. 10060.
PER Q= 100.0
AREA= 148.5
VEL= 6.7

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.700

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1898.60 ELREA= 1898.60

10.70	2.64	1888.14	0.00	0.00	1888.51	0.37	0.11	0.10	1890.00

```
     1000.        0.      1000.        0.        0.      206.        0.       11.        4.    1890.00
      0.14       0.00      4.86       0.00     0.037     0.035     0.037     0.000  1885.50    9954.30
 0.004654         15.       15.        15.         4         0         0      0.00    94.08   10048.38

 FLOW DISTRIBUTION FOR SECNO=     10.70          CWSEL=   1888.14

 STA=    9954.   10060.
   PER Q=    100.0
    AREA=    205.6
     VEL=      4.9


 SPECIAL BRIDGE

 SB  XK         XKOR       COEP       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      1.25       1.56       2.80       0.00      70.00       5.00    1194.80       1.74    1885.50    1885.50

 *SECNO 10.710
 CLASS A LOW FLOW

 3420 BRIDGE W.S.=   1889.04 BRIDGE VELOCITY=.      5.67      CALCULATED CHANNEL AREA=.      176.

  EGPRS      EGLWC       H3        QWEIR      QLOW       BAREA    TRAPEZOID      ELLC       ELTRD
                                                                     AREA
      0.00  1888.60       0.13         0.      1000.      1195.      1195.      1899.00    1899.50


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=     1899.00 ELREA=     1899.00

     10.71      2.77  1888.27       0.00       0.00  1888.60       0.33       0.09       0.00  1890.00
     1000.        0.      1000.        0.        0.      218.        1.       11.        4.    1890.00
      0.14       0.00      4.59       0.00     0.037     0.035     0.037     0.000  1885.50    9953.66
 0.003929         60.       60.        60.         0         0         0      0.00    95.51   10049.17

 FLOW DISTRIBUTION FOR SECNO=     10.71          CWSEL=   1888.27

 STA=    9954.   10060.
   PER Q=    100.0
    AREA=    217.6
     VEL=      4.6

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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   LAS VEGAS WASH - NONDA

 SUMMARY PRINTOUT TABLE  150

       SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
 *     10.340      0.00       0.00       0.00    1872.00    1000.00    1874.69    1874.69    1875.84     140.69       8.58     116.50      84.31
       10.460    600.00       0.00       0.00    1876.10    1000.00    1880.23       0.00    1880.55      48.65       4.55     220.58     143.38
```

	10.490	170.00	0.00	0.00	1877.00	1000.00	1881.20	0.00	1881.83	109.04	6.41	156.06	95.76
	10.540	260.00	1887.70	1890.70	1877.80	1000.00	1882.30	0.00	1882.38	5.43	2.21	452.93	429.29
	10.550	82.00	1887.20	1890.00	1878.00	1000.00	1882.35	0.00	1882.43	6.18	2.30	434.28	402.15
	10.620	335.00	0.00	0.00	1875.70	1000.00	1882.27	0.00	1883.35	37.58	8.35	119.79	163.12
	10.627	62.00	0.00	0.00	1875.90	1000.00	1882.55	0.00	1883.59	35.75	8.19	122.06	167.26
	10.634	38.00	0.00	0.00	1876.10	1000.00	1883.86	0.00	1883.90	0.58	1.53	654.38	1310.57
	10.642	40.00	0.00	0.00	1876.20	1000.00	1883.86	0.00	1883.90	0.32	1.58	634.22	1759.92
	10.649	39.00	0.00	0.00	1876.30	1000.00	1883.86	0.00	1883.90	0.32	1.59	629.48	1770.22
	10.650	1.00	0.00	0.00	1876.30	1000.00	1883.86	0.00	1883.90	0.32	1.59	629.30	1769.36
	10.657	41.00	0.00	0.00	1876.50	1000.00	1883.86	0.00	1883.90	0.34	1.62	616.38	1711.53
*	10.658	1.00	0.00	0.00	1884.50	1000.00	1886.30	1886.30	1887.12	43.25	7.27	137.57	152.05
*	10.665	40.00	0.00	0.00	1884.50	1000.00	1886.47	1886.47	1887.35	40.29	7.52	133.06	157.53
	10.686	113.00	0.00	0.00	1884.70	1000.00	1887.49	0.00	1887.81	18.40	4.57	219.02	233.11
	10.697	55.00	1898.60	1899.00	1885.50	1000.00	1887.60	0.00	1888.30	120.13	6.74	148.46	91.24
	10.700	15.00	0.00	0.00	1885.50	1000.00	1888.14	0.00	1888.51	46.54	4.86	205.61	146.59

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	10.710	60.00	1898.50	1899.00	1885.50	1000.00	1888.27	0.00	1888.60	39.29	4.59	217.63	159.53

LAS VEGAS WASH - NONDA

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	10.340	1000.00	1874.69	0.00	0.00	0.00	51.50	0.00
	10.450	1000.00	1880.23	0.00	5.54	0.00	121.98	600.00
	10.490	1000.00	1881.20	0.00	0.97	0.00	88.97	170.00
	10.540	1000.00	1882.30	0.00	1.11	0.00	116.25	260.00
	10.550	1000.00	1882.35	0.00	0.04	0.00	116.23	82.00
	10.620	1000.00	1882.27	0.00	-0.08	0.00	31.46	335.00
	10.627	1000.00	1882.55	0.00	0.28	0.00	31.76	62.00
	10.634	1000.00	1883.86	0.00	1.31	0.00	102.53	38.00
	10.642	1000.00	1883.86	0.00	0.00	0.00	99.45	40.00

	10.649	1000.00	1883.86	0.00	0.00	0.00	86.15	39.00
	10.650	1000.00	1883.86	0.00	0.00	0.00	86.11	1.00
	10.657	1000.00	1883.86	0.00	0.00	0.00	86.08	41.00
*	10.658	1000.00	1896.30	0.00	2.44	0.00	86.03	1.00
*	10.665	1000.00	1886.47	0.00	0.17	0.00	76.68	40.00
	10.696	1000.00	1887.49	0.00	1.02	0.00	93.36	113.00
	10.697	1000.00	1887.60	0.00	0.11	0.00	84.96	55.00
	10.709	1000.00	1888.14	0.00	0.54	0.00	94.08	15.00
	10.710	1000.00	1888.27	0.00	0.13	0.00	95.51	60.00

1

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.658 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.658 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.658 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.665 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.665 PROFILE= 1 MINIMUM SPECIFIC ENERGY

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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
 ERROR CORR -  01,02,03,04,05
 MODIFICATION -  50,51,52,53,54,55
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EOF..

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1*************************************************
*  LATER SURFACE PROFILES                       *
*  VERSION OF NOVEMBER 1976                     *
*  UPDATED AUGUST 1983                          *
*                                               *
*  RUN DATE   5-FEB-88 TIME   23:09:55          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X        X     X              X     X
X      X  X        X                    X     X
XXXXXXXX  XXXX     X           XXXXX    XXXXX
X      X  X        X                    X
X      X  X        X     X              X
X      X  XXXXXXX  XXXXX                XXXXXXX

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  5-FEB-88     23:09:55                                        PAGE     1


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************



 SPLIT FLOW BEING PERFORMED

 SE

 TN         LOB BREAKOUT D/S OF I-15
 NS      4   10.55   10.665   10.34    0.037   0.0040
 NG      5   1895.9       13  1896.0      250  1898.0      500  1899.0
1
  5-FEB-88     23:09:55                                        PAGE     2

 C
 T1         CCRFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         LAS VEGAS WASH - 100-YEAR
 J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          0.       2.         0.         0. -1.000000       0.00       0.0        0.       0.000      0.000
 J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
       -1.000     0.000     -1.000     0.000      0.000      0.000      0.000      0.000      0.000      0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
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	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
QT	1.000	82000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8750.000	0.042	9965.000	0.035	10055.000	0.037	
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT										
	CENTERLINE STATION AT 10000										
X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
GR	1888.000	6315.000	1886.000	6325.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000	
GR	1878.900	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000	
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000	
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000	
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000	
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000	
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000	
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000	
GR	1862.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000	
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000	
GR	1884.800	10675.000	1886.000	10810.000	1888.000	10835.000	0.000	0.000	0.000	0.000	
QT	1.000	77000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NH	4.000	0.100	8095.000	0.042	9905.000	0.035	10020.000	0.037	10575.000	0.000	
	CENTERLINE STATION AT 10000										
X1	10.460	28.000	9905.000	10020.000	600.000	700.000	600.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
GR	1890.000	7310.000	1886.000	7375.000	1886.000	7420.000	1888.000	7445.000	1888.000	7680.000	
GR	1888.000	8095.000	1883.000	8515.000	1887.200	8750.000	1886.000	8925.000	1886.000	8975.000	
GR	1886.600	9215.000	1886.000	9390.000	1884.000	9450.000	1883.300	9695.000	1884.000	9815.000	
GR	1885.100	9870.000	1884.000	9880.000	1882.000	9900.000	1880.000	9905.000	1878.000	9970.000	
GR	1876.100	10000.000	1878.000	10010.000	1880.000	10020.000	1882.000	10075.000	1884.000	10155.000	
GR	1886.000	10275.000	1888.000	10425.000	1890.000	10575.000	0.000	0.000	0.000	0.000	

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NC	0.042	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	CENTERLINE STATION AT 5188										
X1	10.490	27.000	9975.000	10015.000	250.000	140.000	170.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
GR	1892.000	7615.000	1886.000	7635.000	1886.000	7650.000	1888.000	7680.000	1890.000	7890.000	
GR	1890.600	8075.000	1890.000	8505.000	1888.000	8975.000	1888.000	9215.000	1886.000	9420.000	
GR	1884.000	9640.000	1884.000	9860.000	1884.100	9890.000	1884.000	9925.000	1880.000	9935.000	
GR	1880.000	9975.000	1878.000	9995.000	1877.000	10000.000	1878.000	10005.000	1880.000	10015.000	
GR	1884.000	10035.000	1884.000	10170.000	1886.000	10260.000	1886.000	10325.000	1888.000	10360.000	
GR	1890.000	10435.000	1892.000	10705.000	0.000	0.000	0.000	0.000	0.000	0.000	
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000	
	CENTERLINE STATION AT 10000										
X1	10.540	33.000	9934.000	10077.000	270.000	220.000	260.000	0.000	0.000	0.000	
BT	9.000	9450.000	1850.700	1850.700	9480.000	1891.600	1890.000	9520.000	1890.000	1888.500	
BT	9700.000	1883.500	1886.000	9934.000	1887.700	1886.000	9938.900	1887.700	1885.700	10061.100	
BT	1888.800	1885.700	10077.000	1869.000	1888.000	10225.000	1890.000	1890.000	0.000	0.000	
GR	1894.000	7630.000	1892.000	7735.000	1890.000	7800.000	1888.000	7825.000	1888.000	7875.000	
GR	1890.000	7950.000	1892.000	7990.000	1892.000	8410.000	1890.500	8940.000	1890.000	9380.000	
GR	1890.700	9451.000	1890.000	9480.000	1888.000	9520.000	1886.000	9700.000	1886.000	9934.000	
GR	1885.700	9938.900	1881.900	9939.000	1877.800	9956.000	1877.800	9974.500	1885.700	9974.600	
GR	1885.700	9977.500	1877.800	9977.600	1877.800	10022.500	1885.700	10022.600	1885.700	10025.300	
GR	1877.800	10025.400	1877.800	10043.800	1881.900	10061.000	1885.700	10061.100	1888.000	10077.000	
GR	1890.000	10225.000	1892.000	10680.000	1894.000	11050.000	0.000	0.000	0.000	0.000	

**** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
NORMAL BRIDGE
1' DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.550	37.000	9928.000	10075.000	82.000	82.000	82.000	0.000	0.000	0.000
BT	8.000	9525.000	1890.000	1890.000	9565.000	1888.800	1888.000	9825.000	1888.000	1886.100
BT	9928.000	1887.200	1886.000	9938.900	1887.700	1885.900	10061.100	1888.800	1885.900	10075.000
BT	1889.000	1886.000	10210.000	1890.000	1890.000	0.000	0.000	0.000	0.000	0.000
GR	1896.000	7505.000	1894.000	7645.000	1892.000	7735.000	1890.000	7780.000	1888.000	7805.000
GR	1888.000	7835.000	1890.000	7890.000	1892.000	7980.000	1893.100	8260.000	1892.000	8595.000
GR	1890.000	8910.000	1890.000	9210.000	1892.000	9290.000	1890.000	9345.000	1890.700	9475.000
GR	1890.000	9505.000	1888.000	9565.000	1886.100	9825.000	1886.000	9928.000	1885.900	9538.900
GR	1882.100	9939.000	1878.000	9956.000	1878.000	9974.600	1885.900	9974.600	1885.900	9977.500
GR	1878.000	9977.600	1878.000	10022.500	1885.900	10022.600	1885.900	10025.300	1878.000	10025.400
GR	1878.000	10043.800	1882.100	10161.100	1885.900	10161.100	1888.000	10175.100	1890.000	10210.000
GR	1892.000	10665.000	1894.000	11520.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.037	9849.000	0.035	9966.000	0.025	10020.000	0.035	10055.000	0.037
NH	10100.000	0.100	11100.000	0.035	11275.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.620	37.000	9966.000	10020.000	220.000	245.000	225.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1898.000	7620.000	1896.000	7630.000	1894.000	7665.000	1892.500	7710.000	1894.000	7795.000
GR	1894.000	7885.000	1896.000	7975.000	1897.300	8035.000	1896.000	8109.000	1894.000	8425.000
GR	1893.000	8549.000	1894.000	9104.000	1896.000	9139.000	1896.000	9204.000	1894.500	9224.000
GR	1893.700	9275.000	1894.400	9308.000	1893.700	9359.000	1894.200	9391.000	1892.200	9554.000
GR	1892.500	9849.000	1892.000	9891.000	1892.000	9936.000	1891.700	9966.000	1875.700	9997.500
GR	1875.700	10002.500	1884.200	10020.000	1890.000	10082.100	1892.000	10055.700	1894.000	10100.000

GR	1894.000	10255.000	1896.800	10590.000	1894.000	10805.000	1896.000	10815.000	1896.000	11025.000
GR	1898.000	11100.000	1900.000	11275.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.037	9965.000	0.025	10020.000	0.037	10068.000	0.100	11050.000	0.037
NH	11390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.627	36.000	9965.000	10020.000	62.000	62.000	62.000	0.000	0.000	0.000
GR	1898.800	7500.000	1898.000	7605.000	1896.000	7635.000	1894.000	7670.000	1892.900	7705.000
GR	1894.000	7775.000	1894.000	7880.000	1896.000	7975.000	1897.500	8035.000	1896.000	8130.000
GR	1894.000	8450.000	1893.400	8540.000	1894.000	8970.000	1896.000	9145.000	1898.000	9175.000
GR	1896.000	9265.000	1896.000	9605.000	1894.000	9695.000	1892.000	9740.000	1892.400	9965.000
GR	1875.900	9997.500	1875.900	10002.500	1884.400	10020.000	1885.000	10050.000	1886.000	10060.000
GR	1887.000	10068.000	1890.000	10085.000	1892.000	10095.000	1894.000	10105.000	1894.000	10255.000
GR	1896.000	10540.000	1896.000	10810.000	1896.000	11010.000	1898.000	11050.000	1900.000	11250.000
GR	1902.000	11390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.037	9935.000	0.025	10060.000	0.037	10100.000	0.100	11045.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.634	34.000	9935.000	10060.000	38.000	38.000	38.000	0.000	0.000	0.000
GR	1898.900	7525.000	1898.000	7630.000	1896.000	7660.000	1894.000	7685.000	1893.100	7715.000
GR	1894.000	7785.000	1894.000	7895.000	1896.000	7990.000	1897.700	8045.000	1896.000	8150.000
GR	1894.000	8470.000	1893.600	8540.000	1894.000	8940.000	1896.000	9160.000	1898.000	9195.000
GR	1896.000	9605.000	1894.000	9685.000	1892.000	9770.000	1891.400	9935.000	1876.400	9965.000
GR	1876.100	10035.000	1876.400	10035.000	1887.000	10060.000	1888.000	10068.000	1890.000	10090.000
GR	1892.000	10100.000	1894.000	10110.000	1894.000	10245.000	1896.000	10545.000	1896.000	10805.000
GR	1896.000	10960.000	1893.000	11045.000	1900.000	11195.000	1902.000	11375.000	0.000	0.000
NH	5.000	0.037	9935.000	0.018	10055.000	0.037	10105.000	0.100	10975.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.642	35.000	9935.000	10055.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.800	7600.000	1898.000	7655.000	1896.000	7665.000	1894.000	7680.000	1893.500	7710.000
GR	1894.000	7760.000	1894.500	7890.000	1896.000	7990.000	1898.000	8050.000	1896.000	8165.000
GR	1894.000	8525.000	1894.000	8825.000	1896.000	9155.000	1898.000	9195.000	1898.000	9435.000
GR	1896.000	9590.000	1894.000	9680.000	1885.500	9935.000	1886.500	9945.000	1876.500	9965.000
GR	1876.200	10000.000	1876.500	10035.000	1886.500	10055.000	1887.000	10056.000	1888.000	10064.000
GR	1890.000	10072.000	1892.000	10105.000	1894.000	10120.000	1894.000	10220.000	1896.000	10330.000
GR	1896.000	10550.000	1896.000	10825.000	1898.000	10975.000	1900.000	11120.000	1902.000	11375.000

NH	5.000	0.037	9945.000	0.018	10058.000	0.037	10083.000	0.100	10975.000	0.037
NH	11380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.649	34.000	9956.900	10043.100	35.100	35.000	35.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1898.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	10.650	34.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1898.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000
NH	5.000	0.037	9941.000	0.018	10066.000	0.037	10135.000	0.100	10735.000	0.037
NH	11355.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.657	37.000	9956.900	10043.100	41.000	41.000	41.000	0.000	0.000	0.000
GR	1899.800	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1898.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1884.900	9957.000	1884.500	10000.000	1884.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1885.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000

**** DROP STRUCTURE ****

		CENTERLINE STATION AT 10000								
X1	10.658	37.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
GR	1899.800	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1898.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1884.900	9957.000	1884.500	10000.000	1884.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1885.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	0.037	9940.000	0.018	10073.000	0.037	11345.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.665	34.000	9940.000	10060.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.200	7480.000	1898.000	7530.000	1896.000	7685.000	1896.000	7935.000	1898.000	8015.000
GR	1898.900	8065.000	1898.000	8125.000	1896.000	8220.000	1895.500	8510.000	1896.000	8960.000
GR	1898.000	9205.000	1900.000	9365.000	1900.000	9455.000	1898.000	9545.000	1896.000	9680.000
GR	1894.000	9750.000	1892.000	9871.000	1885.800	5894.000	1894.300	9940.000	1894.800	9945.000
GR	1884.800	9965.000	1884.500	10000.000	1884.900	10035.000	1894.800	10055.000	1894.300	10060.000
GR	1891.300	10067.000	1890.300	10070.000	1891.300	10073.000	1892.000	10130.000	1894.000	10140.000
GR	1896.000	11640.000	1898.000	10975.000	1900.000	11105.000	1902.000	11345.000	0.000	0.000
GT	1.000	82000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.037	0.037	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000
500-YEAR LOB BREAKOUT OF 5,000 CFS D/S OF I-15 (REJOINS MAIN CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW DISTRIBUTION AT I-15

X1	10.686	23.000	9940.000	10060.000	115.000	90.000	113.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1914.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1859.700	8085.000	
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1858.000	9700.000	
GR	1898.000	9915.000	1896.000	9935.000	1894.300	9940.000	1885.100	9960.000	1884.700	10000.000	
GR	1885.100	10040.000	1894.300	10060.000	1896.000	10070.000	1898.000	10100.000	1898.000	10450.000	
GR	1900.000	10800.000	1902.000	11360.000	1904.000	11500.000	0.000	0.000	0.000	0.000	
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.100	
NC	0.037	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

**** I-15 NORTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.697	22.000	9945.000	10060.000	55.000	55.000	55.000	0.000	0.000	0.000	
X2	0.000	0.000	1.000	1895.000	1898.600	0.000	0.000	0.000	0.000	15.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1899.000	1899.000	0.000	
BT	17.000	6430.000	1904.000	0.000	6820.000	1902.000	0.000	7810.000	1900.000	0.000	
BT	7970.000	1899.900	0.000	8085.000	1899.700	0.000	8220.000	1899.700	0.000	8530.000	
BT	1898.500	0.000	8800.000	1898.600	0.000	9140.000	1898.100	0.000	9655.000	1899.000	
BT	0.000	9795.000	1899.000	0.000	9895.000	1899.000	0.000	9995.000	1899.000	0.000	
BT	10075.000	1899.000	0.000	10320.000	1900.000	0.000	10870.000	1902.000	0.000	11270.000	
BT	1904.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1859.700	8085.000	
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1858.000	9625.000	
GR	1896.000	9935.000	1890.000	9945.000	1886.000	9970.000	1885.500	9975.000	1885.500	10025.000	
GR	1886.000	10035.000	1890.000	10060.000	1896.000	10070.000	1898.000	10090.000	1900.000	10290.000	
GR	1902.000	10850.000	1904.000	11300.000	0.000	0.000	0.000	0.000	0.000	0.000	

CENTERLINE STATION AT 10000

X1	10.700	23.000	9945.000	10060.000	15.000	15.000	15.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1898.600	1898.600	0.000	
GR	1906.000	6210.000	1904.000	6560.000	1903.900	6805.000	1902.000	7285.000	1903.100	7380.000	
GR	1903.000	7681.000	1902.800	8185.000	1902.000	8465.000	1900.000	9160.000	1898.000	9560.000	
GR	1898.000	9900.000	1890.000	9945.000	1886.000	9965.000	1885.500	9975.000	1885.500	10025.000	
GR	1886.000	10035.000	1890.000	10060.000	1890.000	10075.000	1898.000	10145.000	1900.000	10235.000	
GR	1902.000	10805.000	1904.000	11205.000	1906.000	11575.000	0.000	0.000	0.000	0.000	
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.500	

**** I-15 SOUTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.710	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000	
X2	0.000	0.000	1.000	1899.000	1898.600	0.000	0.000	0.000	0.000	15.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1899.000	1899.000	0.000	
BT	19.000	6210.000	1906.000	0.000	6560.000	1904.000	0.000	6805.000	1903.900	0.000	
BT	7285.000	1902.000	0.000	7380.000	1903.100	0.000	7680.000	1903.000	0.000	8185.000	
BT	1902.800	0.000	8465.000	1902.000	0.000	9045.000	1901.900	0.000	9160.000	1900.000	
BT	0.000	9535.000	1899.600	0.000	9930.000	1899.500	0.000	10100.000	1899.500	0.000	

BT	10200.000	1899.900	0.000	10235.000	1900.000	0.000	10400.000	1900.900	0.000	10805.000
BT	1902.000	0.000	11205.000	1904.000	0.000	11575.000	1906.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

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    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TCPWID    ENDST

*PROF 1

CCHV=   0.100  CEHV=    0.300
1490 NH CARD USED
*SECNO 10.340
2090 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED
                SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT
                CENTERLINE STATION AT 10000
    10.34     13.36  1885.36  1885.36      0.00  1886.61      1.26      0.00      0.00  1882.00
   62000.    56239.   15914.    9877.    10182.     952.     1414.        0.        0.  1880.00
     0.00      5.52     16.71     6.99     0.050    0.035    0.037     0.000   1872.00  6041.08
 0.006956       450.      450.      420.         3       17         3      0.00  4417.72 10737.64

FLOW DISTRIBUTION FOR SECNO=     10.34          CWSEL=   1885.36

STA=    6041.    6295.    6420.    6480.    6535.    6660.    7775.    8450.    8790.    8975.    9185.    9635.    9775.
  PER Q=     3.3      8.5      4.4      3.3      4.3      3.5      3.1      3.9      5.5      5.7     13.4      4.2
    AREA=   541.5    707.3    354.4    282.1    424.6   1373.6   1247.6   1151.3    658.0    704.9   1600.5    497.9
     VEL=     5.4      9.9     10.1      9.6      8.4      2.1      2.0      2.8      6.9      6.6      6.9      6.9
STA=    9775.    9965.   10055.   10190.   10310.   10738.
  PER Q=     5.1     19.4      6.4      3.7      1.9
    AREA=   637.3    952.1    588.2    402.8    422.7
     VEL=     6.3     16.7      8.9      7.5      3.8

1490 NH CARD USED
*SECNO 10.460
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.46     13.28  1889.38  1889.38      0.00  1890.86      1.48      3.78      0.07  1880.00
   75503.    38935.    1966.   16962.     6977.    1272.    1927.     160.       54.  1880.00
     0.02      5.58     15.41     8.80     0.045    0.035    0.037     0.000   1876.10  7220.04
 0.005376       600.      600.      700.         2        6        0      0.00  3208.65 10528.68

FLOW DISTRIBUTION FOR SECNO=     10.46          CWSEL=   1889.38

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TLA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TCPWID      ENDST

STA=    7320.    8515.    8925.    9215.    9390.    5695.    9815.    9880.    9905.   10020.   10075.   10155.   10275.
  PER Q=     4.9      5.4      6.7      3.9     17.9      7.6      3.1      2.1     26.0      7.4      6.9      5.5
    AREA=  1783.9    905.8    908.9    539.4   1667.4    687.9    314.1    169.6   1272.0    461.0    510.6    525.9
     VEL=     2.1      4.5      5.6      5.5      8.1      8.3      7.4      9.2     15.4     12.1     10.1      7.9
STA=   10275.   10529.
  PER Q=     2.7
    AREA=   429.3
     VEL=     4.8

*SECNO 10.490
                CENTERLINE STATION AT 5188
    10.49     13.76  1890.76      0.03      0.00  1891.97      1.21      1.08      0.03  1880.00
   75503.    47749.    7648.   20105.     6860.     486.    2214.     210.       70.  1880.00
     0.03      6.96     15.75     9.08     0.042    0.035    0.037     0.000   1877.00  7619.11
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 0.105010      25.      170.      140.        3         0         0      0.00  2916.37 10535.47

 FLOW DISTRIBUTION FOR SECNO=     10.49          CWSEL=   1890.76

 STA=    7619.    7890.    8975.    9215.    9420.    9640.    9860.    9925.    9975.   10015.   10170.   10260.   10325.
   PER Q=    3.6      4.6      4.3      6.2     13.5     17.7      5.2      8.1     10.1     15.1      6.3      3.3
    AREA=   593.5   1117.9    664.1    772.3   1268.8   1488.8    436.6    518.4    485.7   1088.9    519.0    309.9
     VEL=     4.6      3.1      4.9      6.1      8.1      9.0      8.9     11.9     15.7     10.5      9.1      8.1
 STA=   10325.   10535.
   PER Q=     2.0
    AREA=    296.
     VEL=     5.0

 CCHV=   0.300 CEHV=   0.500
 *SECNO 10.540

 337  NORMAL BRIDGE,NRD=  9 MIN ELTRD= 1887.70 MAX ELLC= 1890.71

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.54     15.03  1892.80  1892.80     0.00  1894.18     1.38     2.03     0.09  1886.00
   75503.   46778.   17618.   11107.    5391.    1491.    1368.     263.      88.  1888.00
     0.05     8.68    11.81     8.12    0.042    0.035    0.037    0.000  1877.80  7692.92
 0.014056      270.     260.     220.        7       10        0 -1419.69  3135.36 10828.28

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       ILA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *SECNO 10.550
 3280 CROSS SECTION      10.55 EXTENDED       0.44 FEET

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD= 1887.20 MAX ELLC= 1890.00

                **** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
                NORMAL BRIDGE
                1% DEBRIS LOAD
                CENTERLINE STATION AT 10000
    10.55     16.44  1894.44     0.00     0.00  1894.97     0.53     0.53     0.26  1886.00
   75503.   48638.   11822.   15042.    8518.    1757.    2739.     283.      94.  1888.00
     0.04     5.71     6.73     5.49    0.042    0.035    0.037    0.000  1878.00  7614.49
 0.003721      82.      82.      82.        4        0        0 -908.76  3405.51 11020.00

 1490 NH CARD USED
 *SECNO 10.620

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.62     21.97  1897.67  1897.67     0.00  1899.24     1.58     1.03     0.52  1891.70
   75503.   47601.   16471.   11431.    8626.     860.    3009.     372.     118.  1884.20
     0.05     5.52    19.16     3.80    0.037    0.025    0.054    0.000  1875.70  7621.67
 0.002969      327.     335.     245.       20       16        0      .00  3465.84 11087.50
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FLOW DISTRIBUTION FOR SECNO= 10.62 CWSEL= 1997.67

STA=	7622.	7795.	7975.	8429.	8545.	9104.	9308.	9554.	9849.	9936.	9966.	10020.	10082.
PER Q=	5.	3.6	5.2	3.8	17.4	3.3	6.8	11.7	4.6	1.7	21.8	9.6	
AREA=	674.5	570.3	989.6	500.0	2312.5	551.3	950.0	1420.9	482.5	174.5	856.8	655.1	
VEL=	5.6	4.8	3.9	5.7	5.7	4.5	5.4	6.2	7.3	7.5	19.2	11.1	

STA=	10082.	10590.	11088.
PER Q=	4.0	1.5	
AREA=	1437.7	916.1	
VEL=	2.1	1.3	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AREB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 10.627
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.63	22.32	1358.22	1898.22	0.00	1899.82	1.60	0.18	0.01	1892.40
75503.	45635.	16965.	12903.	8350.	885.	3560.	390.	123.	1884.40
0.05	5.47	19.17	3.62	0.037	0.025	0.063	0.000	1875.90	7576.37
0.002533	62.	62.	62.	20	5	0	0.00	3495.44	11071.81

1490 NH CARD USED
*SECNO 10.634
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.63	22.35	1898.45	1898.45	0.00	1900.42	1.97	0.07	0.19	1891.40
75503.	32123.	37471.	5909.	8261.	2410.	3212.	402.	126.	1887.00
0.05	3.89	15.55	1.34	0.037	0.025	0.074	0.000	1876.10	7577.02
0.001405	38.	38.	38.	20	5	0	0.00	3502.04	11079.06

1490 NH CARD USED
*SECNO 10.642
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.64	23.17	1899.37	1899.37	0.00	1901.56	2.18	0.04	0.11	1889.50
75503.	30667.	39453.	5386.	9815.	2440.	3673.	416.	129.	1886.50
0.05	3.12	16.17	1.47	0.037	0.018	0.073	0.000	1876.20	7613.11
0.000731	40.	40.	40.	20	5	0	0.00	3461.27	11074.39

1490 NH CARD USED
*SECNO 10.649
3280 CROSS SECTION 10.65 EXTENDED 0.36 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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CENTERLINE STATION AT 10000

10.65	23.66	1899.96	1899.96	0.00	1902.02	2.05	0.03	0.04	1886.30
75503.	34014.	33900.	7588.	10151.	2017.	3924.	430.	132.	1886.30

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      0.05      3.35     16.80      1.93      0.036     0.018     0.059     0.000  1876.30  7520.00
 0.000805        39.       39.       39.         21         9         0      0.00  3597.46 11117.46

*SECNO 10.658
3280 CROSS SECTION      10.65 EXTENDED       1.68 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
                CENTERLINE STATION AT 10000
    10.65     24.98  1901.28  1899.89      0.00   1902.32      1.04      0.00      0.00  1889.30
   75503.   39360.   27725.    8418.   13328.     2130.     5434.      430.      132.  1889.30
     0.05      2.95     13.02      1.55      0.036     0.018     0.065     0.000  1876.30  7520.00
 0.000484        1.        1.        1.         20         6         0      0.00  3765.85 11285.85

1490 NH CARD USED
*SECNO 10.657
3280 CROSS SECTION      10.66 EXTENDED       1.83 FEET

                CENTERLINE STATION AT 10000
    10.66     25.13  1901.63      0.00      0.00   1902.42      0.79      0.02      0.08  1894.50
   75503.   38232.   25201.   12070.   13454.     2148.     6512.      451.      136.  1894.50
     0.06      2.84     11.73      1.85      0.036     0.018     0.057     0.000  1876.50  7525.00
 0.000437       41.       41.       41.          2         0         0      0.00  3786.19 11311.19

*SECNO 10.658
3280 CROSS SECTION      10.66 EXTENDED       2.22 FEET

                **** DROP STRUCTURE ****
                CENTERLINE STATION AT 10000
    10.66     17.52  1902.02      0.00      0.00   1902.51      0.49      0.00      0.09  1894.50
   75503.   45174.   16066.   14264.   14396.     1492.     7014.      451.      136.  1894.50
     0.06      3.14     10.77      2.03      0.036     0.018     0.057     0.000  1884.50  7525.00
 0.000495        1.        1.        1.          4         0         0      0.00  3830.00 11355.00

1490 NH CARD USED
*SECNO 10.665
3280 CROSS SECTION      10.66 EXTENDED       2.82 FEET

                CENTERLINE STATION AT 10000
    10.66     17.53  1902.03      0.00      0.00   1902.54      0.51      0.02      0.01  1894.30
   77000.   38281.   18593.   20129.   13510.     1780.     6644.      472.      139.  1894.30
     0.06      2.83     10.45      3.03      0.037     0.018     0.036     0.000  1884.50  7480.00
 0.000463       40.       40.       40.          0         0         0      0.00  3865.00 11345.00

1
  5-FEB-88    23:09:55                                                                  PAGE   13

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   G         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TEA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 10.666

3301 HV CHANGED MORE THAN HVINS

3665 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
                500-YEAR LOB BREAKOUT OF 5,000 CFS D/S OF I-15 (REJOINS MAIN
                  CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW
                  DISTRIBUTION AT I-15
    10.69     17.86  1902.56  1902.56      0.00   1903.94      1.38      0.09      0.44  1894.30
```

```
   82000.    37935.    28547.    15117.     9937.     1927.     3967.      816.      150.    1894.30
      .6      3.82     15.02      3.81     0.037     0.025     0.037     0.000   1884.70    6710.81
 0.001647      115.      113.        90.        20         9         0         0.00   4688.38   11399.20

FLOW DISTRIBUTION FOR SECNO=     10.69          CWSEL=   1902.56

STA=    6711.     7810.     8220.     8530.     8800.     9140.     9700.     9915.     9940.    10060.    10450.    10800.    11359.
 PER Q=     4.2       4.4       4.9       5.4       7.4      13.7       5.4       1.0      35.3      10.3       5.8       2.3
  AREA=  1574.9    1121.1    1072.6    1082.7    1431.4    2525.5     980.4     148.2    1927.2    1836.9    1246.0     884.5
   VEL=     2.2       3.2       3.7       4.1       4.2       4.4       4.5       5.3      15.0       4.6       3.8       2.2

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      1.25      1.56      2.80      0.00     70.00      5.00   1194.80      1.74   1885.50   1885.10

*SECNO 10.697
6870 D.S. ENERGY OF 1903.94 HIGHER THAN COMPUTED ENERGY OF 1903.50

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID AREA     ELLC      ELTRD
 1903.50   1903.41      .47     74689.    7432.     1195.      1195.     1895.00   1898.60

                **** I-15 NORTH ****
                2* DEBRIS LOAD
1
  5-FEB-88    23:09:55                                                                    PAGE   14

                CENTERLINE STATION AT 10000
    10.70     17.82   1903.32      0.00      0.00   1903.54      0.62      0.00      0.00   1890.00
   82000.    52981.    29388.     8631.    12819.     1921.     2591.      539.      156.    1890.00
     0.06      4.14     10.61      3.33     0.037     0.035     0.037     0.000   1885.50    6562.23
 0.001475        55.       55.       55.         2         0         8         0.00   4585.20   11147.43

FLOW DISTRIBUTION FOR SECNO=     10.70          CWSEL=   1903.32

STA=    6562.     7810.     8035.     8530.     8800.     9140.     9625.     9935.     9945.    10060.    10290.    10850.    11147.
 PER Q=     7.8       4.0       8.6       6.9       9.3      14.6      12.6       0.8      24.9       6.0       4.3       0.3
  AREA=  2469.0     944.5    1797.8    1268.4    1690.5    2556.8    1959.8     103.2    1920.8    1094.0    1300.3     196.6
   VEL=     2.6       3.6       3.9       4.4       4.5       4.7       5.3       6.6      10.6       4.5       2.7       1.2

*SECNO 10.700

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.70     18.11   1903.61   1903.61      0.00   1905.00      1.39      0.03      0.38   1890.00
   82000.    36407.    28316.    17277.     7279.     1965.     3034.      544.      157.    1890.00
     8.07      5.60     14.41      5.69     0.037     0.035     0.037     0.000   1885.50    6679.38
 0.002641        15.       15.       15.        28         5         0         0.00   4246.74   11126.12

FLOW DISTRIBUTION FOR SECNO=     10.70          CWSEL=   1903.61

STA=    6879.     9160.     9560.     9900.     9945.    10060.    10145.    10805.    11126.
 PER Q=    11.6      12.8      15.1       4.9      34.5      10.5      10.0       0.6
  AREA=  3097.3    1842.2    1905.9     432.3    1964.6     876.5    1899.7     257.8
   VEL=     3.1       5.7       6.5       9.2      14.4       9.9       4.3       1.8
```

SPECIAL BRIDGE

SB	XK	XKOR	COFG	RDLEN	BWC	EWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.50

*SECNO 10.710
6870 D.S. ENERGY OF 1905.00 HIGHER THAN COMPUTED ENERGY OF 1904.95
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
1904.95	1904.79	0.12	73179.	8911.	1195.	1195.	1899.00	1898.60

**** I-15 SOUTH ****
2* DEBRIS LOAD
CENTERLINE STATION AT 10000

10.71	16.23	1903.73	0.00	0.00	1905.00	1.27	0.00	0.00	1890.00
82000.	37094.	27490.	17416.	7679.	1980.	3174.	562.	163.	1890.00
.67	4.33	13.89	5.49	0.037	0.035	0.037	0.000	1885.50	6646.51
0.002427	60.	60.	60.	5	0	8	0.00	4305.64	11152.14

FLOW DISTRIBUTION FOR SECNO= 10.71 CWSEL= 1903.73

STA=	6847.	8465.	9160.	9560.	9900.	9945.	10060.	10145.	10805.	11152.
PER Q=	3.5	9.3	12.9	15.1	4.8	33.5	10.3	10.3	0.7	
AREA=	1494.9	1901.3	1894.3	1950.1	438.1	1979.6	887.5	1965.6	301.3	
VEL=	1.9	3.9	5.6	6.3	8.9	13.9	9.5	4.2	1.8	

TN LOB BREAKOUT D/S OF I-15

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
420.4	3.56	3.03	1.43	500.0	293.9

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
1497.36	1497.21	0.01	1497.36	1497.21	0.01	5	1894.441	1902.030	10.550	10.665

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	10.340	0.00	0.00	0.00	1872.00	82000.00	1885.36	1885.36	1886.61	69.58	16.71	12547.50	9830.46
*	10.460	600.00	0.00	0.00	1876.10	75502.65	1889.38	1889.38	1890.86	53.76	15.41	10175.55	10297.31
	10.490	170.00	0.00	0.00	1877.00	75502.65	1890.76	0.00	1891.97	50.10	15.75	9559.56	10666.52
*	10.540	260.00	1887.70	1890.70	1877.80	75502.65	1892.80	1892.80	1894.18	140.96	11.81	8250.19	6359.37
	10.550	82.00	1887.20	1890.00	1876.00	75502.65	1894.44	0.00	1894.97	37.21	6.73	13014.46	12377.17
*	10.620	335.00	0.00	0.00	1875.70	75502.65	1897.67	1897.67	1899.24	29.65	19.16	12494.62	13856.71
*	10.627	62.00	0.00	0.00	1875.90	75502.65	1898.22	1898.22	1899.82	29.33	19.17	12754.92	13942.46
*	10.634	38.00	0.00	0.00	1876.10	75502.65	1898.45	1898.45	1900.42	14.05	15.55	13882.98	20145.11
*	10.642	40.00	0.00	0.00	1876.20	75502.65	1899.37	1899.37	1901.56	7.31	16.17	15928.05	27927.47
*	10.649	39.00	0.00	0.00	1876.30	75502.65	1899.96	1899.96	1902.02	8.05	16.80	16092.45	26609.56
*	10.65[illegible]	1.[illegible]	[illegible]	[illegible]	1876.30	75502.65	1901.28	1899.89	1902.32	4.84	13.02	20691.55	34326.67
	10.657	41.00	0.00	0.00	1876.50	75502.65	1901.63	0.00	1902.42	4.37	11.73	22113.81	36105.16
	10.658	1.00	0.00	0.00	1884.50	75502.65	1902.02	0.00	1902.51	4.95	10.77	22905.64	33929.51
	10.665	40.00	0.00	0.00	1884.50	77000.00	1902.03	0.00	1902.54	4.63	10.45	21934.07	35790.46
*	10.686	113.00	0.00	0.00	1884.70	82000.00	1902.56	1902.56	1903.94	16.47	15.02	15831.36	20207.17
	10.697	55.00	1898.60	1899.00	1885.50	82000.00	1903.32	0.00	1903.94	14.75	10.61	17321.65	21350.16
*	10.700	15.00	0.00	0.00	1885.50	82000.00	1903.61	1903.61	1905.00	26.41	14.41	12276.27	15956.15

1
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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10.710	60.00	1898.60	1899.00	1885.50	82000.00	1903.73	0.00	1905.00	24.27	13.89	12832.71	16644.71

1
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LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	10.340	82000.00	1885.36	0.00	0.00	0.00	4417.72	0.00
*	10.460	75502.65	1889.38	0.00	4.03	0.00	3208.65	600.00
	10.490	75502.65	1890.76	0.00	1.38	0.00	2916.37	170.00
*	10.540	75502.65	1892.80	0.00	2.04	0.00	3135.36	260.00
	10.550	75502.65	1894.44	0.00	1.64	0.00	3405.51	82.00

*	10.620	75502.65	1857.67	0.00	3.23	0.00	3465.84	335.00
*	10.627	75502.65	1858.22	0.00	0.55	0.00	3495.44	62.00
*	10.634	75502.65	1858.45	0.00	0.24	0.00	3502.04	38.00
*	10.642	75502.65	1859.37	0.00	0.92	0.00	3461.27	40.00
*	10.649	75502.65	1859.96	0.00	0.59	0.00	3597.46	39.00
*	10.650	75502.65	1901.28	0.00	1.32	0.00	3768.85	1.00
	10.657	75502.65	1901.63	0.00	0.35	0.00	3786.19	41.00
	10.658	75502.65	1902.02	0.00	0.39	0.00	3830.00	1.00
	10.665	77000.00	1902.03	0.00	0.01	0.00	3865.00	40.00
*	10.686	82000.00	1902.56	0.00	0.53	0.00	4688.38	113.00
	10.697	82000.00	1903.32	0.00	0.76	0.00	4585.20	55.00
*	10.700	82000.00	1903.61	0.00	0.29	0.00	4246.74	15.00
	10.710	82000.00	1903.73	0.00	0.13	0.00	4305.64	60.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.467 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.540 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.540 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.620 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.620 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.620 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.627 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.627 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.627 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.634 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.634 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.634 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.642 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.642 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.642 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.649 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.649 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.649 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.650 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.686 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.686 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.686 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=    10.700   PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.700   PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.700   PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

1
   5-FEB-88     23:11:49                                                    PAGE     1


 **********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  31,32,33,34,35
   MODIFICATION -  50,51,52,53,54,55
 **********************************************



EOF..
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1*************************************************
 *  LATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   7-FEB-88 TIME   01:18:05          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  51,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR

J1  ICHECK     INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

          0.        2.        0.        0.  -1.000000    0.00      0.0       0.      0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

        1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

      150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

GT        2.000  23000.000  82000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC        0.000      0.000      0.000     0.100     0.300     0.000     0.000     0.000     0.000     0.000
NH        5.000      0.040   6660.000     0.100  8790.000     0.042  5565.000     0.035 10055.000     0.037
NH    10835.000      0.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET        0.000      7.100      9.100     0.000     0.000     0.000  7980.000     0.000  6505.000     0.000
                SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT
                CENTERLINE STATION AT 10000
X1       10.340     53.000   9965.000  10055.000   450.000   420.000   450.000     0.000     0.000     0.000
X2        0.000      0.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR     1888.000   6015.000   1885.000   6025.000  1884.000  6075.000  1882.000  6295.000  1880.000  6315.000
GR     1878.900   6420.000   1880.000   6480.000  1883.000  6505.000  1880.000  6515.000  1876.000  6535.000
GR     1876.000   6545.000   1882.000   6560.000  1884.000  6660.000  1886.000  6925.000  1884.000  7025.000
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GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7500.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9185.000	1881.600	9235.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.000	10675.000	1886.000	10810.000	1886.000	10835.000	0.000	0.000	0.000	0.000
GT	2.000	23000.000	75500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	7.100	8095.000	0.142	9905.000	0.135	10120.000	0.037	10575.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8515.000	0.000	0.000	0.000

CENTERLINE STATION AT 10160

X1	10.460	28.000	9905.000	10120.000	600.000	700.000	600.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1890.000	7310.000	1886.000	7375.000	1886.000	7420.000	1888.000	7445.000	1888.000	7680.000
GR	1888.000	8095.000	1888.000	8515.000	1887.200	8750.000	1886.000	8925.000	1886.000	8975.000
GR	1886.600	9215.000	1886.000	9390.000	1884.000	9450.000	1882.300	9695.000	1884.000	9815.000
GR	1885.100	9870.000	1884.000	9880.000	1882.000	9900.000	1880.000	9905.000	1878.000	9970.000
GR	1876.100	10000.000	1878.000	10010.000	1880.000	10020.000	1882.000	10075.000	1884.000	10155.000
GR	1886.000	10275.000	1888.000	10425.000	1890.000	10575.000	0.000	0.000	0.000	0.000
NC	0.042	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8075.000	0.000	0.000	0.000

CENTERLINE STATION AT 5168

X1	10.490	27.000	9975.000	10315.000	250.000	140.000	170.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1852.000	7615.000	1886.000	7635.000	1886.000	7650.000	1888.000	7680.000	1890.000	7890.000
GR	1890.600	8075.000	1890.000	8505.000	1888.000	8975.000	1888.000	9215.000	1886.000	9420.000
GR	1884.000	9640.000	1884.000	9860.000	1884.100	9890.000	1884.000	9925.000	1880.000	9935.000
GR	1880.000	9975.000	1878.000	9995.000	1877.000	10000.000	1878.000	10005.000	1880.000	10015.000
GR	1884.000	10035.000	1884.000	10170.000	1886.000	10260.000	1886.000	10325.000	1888.000	10360.000
GR	1890.000	10433.000	1892.000	10705.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8410.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	10.540	33.000	9934.000	10077.000	270.000	220.000	260.000	0.000	0.000	0.000
BT	9.000	9450.000	1890.700	1890.700	9480.000	1891.600	1890.000	9520.000	1890.000	1888.000
BT	5700.000	1888.500	1886.000	9934.000	1887.700	1886.000	9938.500	1887.700	1885.700	10061.100
BT	1888.800	1885.700	10077.000	1889.000	1888.000	10225.000	1890.000	1890.000	0.000	0.000
GR	1894.000	7630.000	1892.000	7735.000	1890.000	7800.000	1888.000	7825.000	1888.000	7875.000
GR	1890.000	7950.000	1892.000	7990.000	1892.000	8410.000	1890.000	8940.000	1890.000	9380.000
GR	1890.700	9457.000	1890.700	9481.000	1888.000	9520.000	1886.000	9700.000	1886.000	9934.000
GR	1885.700	9938.900	1881.900	9939.000	1877.800	9956.000	1877.800	9974.500	1885.700	9974.600
GR	1885.700	9977.500	1877.800	9977.600	1877.800	10022.500	1885.700	10022.600	1885.700	10025.300
GR	1877.800	10025.400	1877.800	10043.800	1881.900	10061.000	1885.700	10061.100	1888.000	10077.000
GR	1890.000	10225.000	1892.000	10680.000	1894.000	11050.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8260.000	0.000	0.000	0.000

**** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
NORMAL BRIDGE
1* DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.550	38.000	9923.000	10075.000	82.000	82.000	82.000	0.000	0.000	0.000
BT	8.000	9505.000	1890.000	1890.000	9565.000	1888.800	1888.000	9825.000	1888.000	1886.100
BT	9928.000	1887.200	1886.000	9938.900	1887.700	1885.900	10061.100	1888.800	1885.900	10075.000
BT	1885.000	1888.000	10210.000	1890.000	1890.000	0.000	0.000	0.000	0.000	0.000
GR	1896.000	7505.000	1894.000	7645.000	1892.000	7735.000	1890.000	7780.000	1888.000	7805.000
GR	1888.000	7835.000	1890.000	7890.000	1892.000	7980.000	1893.100	8260.000	1892.000	8595.000
GR	1890.000	8910.000	1890.000	9210.000	1892.000	9290.000	1890.000	9345.000	1890.700	9475.000
GR	1890.000	9505.000	1888.000	9565.000	1886.100	9825.000	1886.000	9928.000	1885.900	9938.900
GR	1882.100	9939.000	1878.000	9956.000	1878.000	9974.500	1885.900	9974.600	1885.900	9977.500
GR	1878.000	9977.600	1878.000	10022.500	1885.900	10022.600	1885.900	10025.300	1878.000	10025.400

GR	1878.000	10043.800	1882.100	10061.000	1885.900	10061.100	1888.000	10075.000	1890.000	10210.000
GR	1892.000	10665.000	1894.000	11130.000	1896.000	11380.000	0.000	0.000	0.000	0.000

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NH	7.000	0.037	9849.000	0.035	9566.000	0.025	10020.000	0.035	10055.000	0.037
NH	10100.000	0.100	11100.000	0.035	11275.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8035.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.620	35.000	9966.000	10120.000	320.000	245.000	325.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1898.000	7620.000	1896.000	7630.000	1894.000	7665.000	1892.500	7710.000	1894.000	7795.000
GR	1894.000	7885.000	1896.000	7975.000	1897.300	8035.000	1896.000	8109.000	1894.000	8429.000
GR	1893.000	8549.000	1894.000	9104.000	1896.000	9139.000	1896.000	9204.000	1894.000	9224.000
GR	1893.700	9275.000	1894.400	9309.000	1893.700	9359.000	1894.200	9391.000	1893.200	9554.000
GR	1892.500	9849.000	1892.000	9891.000	1892.000	9936.000	1891.700	9966.000	1875.700	9997.500
GR	1875.700	10002.500	1884.200	10020.000	1890.000	10082.000	1892.000	10095.000	1894.000	10100.000
GR	1894.000	10255.000	1896.800	10590.000	1896.000	10805.000	1898.000	11100.000	1900.000	11275.000
NH	5.000	0.037	9965.000	0.025	10020.000	0.037	10068.000	0.100	11050.000	0.037
NH	11390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8035.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.627	35.000	9965.000	10120.000	62.000	62.000	62.000	0.000	0.000	0.000
GR	1898.800	7500.000	1898.000	7605.000	1896.000	7635.000	1894.000	7670.000	1892.900	7705.000
GR	1894.000	7775.000	1894.000	7830.000	1896.000	7975.000	1897.500	8035.000	1896.000	8130.000
GR	1894.000	8450.000	1893.400	8540.000	1894.000	8970.000	1896.000	9145.000	1898.000	9175.000
GR	1896.000	9265.000	1896.000	9605.000	1894.000	9695.000	1892.000	9740.000	1892.400	9965.000
GR	1875.900	9997.500	1875.900	10002.500	1884.400	10020.000	1885.000	10050.000	1886.000	10060.000
GR	1887.000	10063.000	1890.000	10085.000	1892.000	10095.000	1894.000	10105.000	1894.000	10255.000
GR	1896.000	10540.000	1896.000	10810.000	1898.000	11050.000	1900.000	11250.000	1902.000	11390.000
NH	5.000	0.037	9935.000	0.025	10060.000	0.037	10100.000	0.100	11045.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8045.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.634	33.000	9935.000	10060.000	38.000	38.000	38.000	0.000	0.000	0.000
GR	1898.900	7525.000	1898.000	7630.000	1896.000	7660.000	1894.000	7685.000	1893.100	7715.000
GR	1894.000	7785.000	1894.000	7895.000	1896.000	7990.000	1897.700	8045.000	1896.000	8150.000
GR	1894.000	8470.000	1893.600	8540.000	1894.000	8940.000	1896.000	9160.000	1898.000	9195.000
GR	1896.000	9265.000	1894.000	9685.000	1892.000	9770.000	1891.400	9935.000	1876.400	9965.000
GR	1876.100	10000.000	1876.400	10035.000	1887.000	10060.000	1888.000	10068.000	1890.000	10090.000
GR	1892.000	10100.000	1894.000	10110.000	1894.000	10245.000	1896.000	10545.000	1896.000	10805.000
GR	1898.000	11045.000	1900.000	11195.000	1902.000	11375.000	0.000	0.000	0.000	0.000
NH	5.000	0.037	9935.000	0.018	10055.000	0.037	10105.000	0.100	10975.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8050.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.642	34.000	9935.000	10055.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.600	7600.000	1898.000	7655.000	1896.000	7665.000	1894.000	7680.000	1893.500	7710.000
GR	1894.000	7760.000	1894.500	7850.000	1896.000	7990.000	1898.000	8050.000	1896.000	8165.000
GR	1894.000	8525.000	1894.000	8825.000	1896.000	9155.000	1898.000	9195.000	1898.000	9435.000
GR	1896.000	9590.000	1894.000	9680.000	1889.500	9935.000	1886.500	9945.000	1876.500	9965.000
GR	1876.200	10000.000	1876.500	10035.000	1886.500	10055.000	1887.000	10056.000	1888.000	10064.000
GR	1890.000	10072.500	1892.000	10105.000	1894.000	10126.000	1894.000	10220.000	1896.000	10330.000
GR	1896.000	10550.000	1898.000	10975.000	1900.000	11120.000	1902.000	11375.000	0.000	0.000

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NH	5.000	0.037	9945.000	0.018	10058.000	0.037	10083.000	0.100	10975.000	0.037
NH	11380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8070.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								

X1	10.649	34.000	9956.900	10043.100	39.000	39.000	39.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1893.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8070.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.65	34.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
GR	1899.600	7520.000	1893.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1893.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000
NH	5.000	1.037	9941.100	1.018	10066.000	0.037	10135.100	0.100	10735.000	0.037
NH	11355.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8080.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.657	37.000	9956.900	10043.100	41.000	41.000	41.000	0.000	0.000	0.000
GR	1899.800	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1898.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1876.900	9957.000	1876.500	10000.000	1876.500	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1889.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8080.000	0.000	0.000	0.000
		**** DROP STRUCTURE ****								
		CENTERLINE STATION AT 10000								
X1	10.658	37.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
GR	1899.800	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1898.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1884.900	9957.000	1884.500	10000.000	1884.500	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1889.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000

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NH	3.000	0.037	9940.000	0.018	10073.000	0.037	11345.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8065.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.665	34.000	9940.000	10060.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.200	7480.000	1898.000	7530.000	1896.000	7685.000	1896.000	7935.000	1898.000	8015.000
GR	1898.900	8065.000	1898.000	8125.000	1896.000	8220.000	1895.500	8510.000	1896.000	8960.000
GR	1898.000	9235.000	1900.000	9365.000	1900.000	9455.000	1898.000	9545.000	1896.000	9680.000
GR	1894.000	9750.000	1892.000	9871.000	1889.800	9894.000	1894.300	9940.000	1894.800	9945.000
GR	1884.800	9965.000	1884.500	10000.000	1884.800	10035.000	1894.800	10055.000	1894.300	10060.000
GR	1891.300	10067.000	1890.300	10070.000	1891.300	10073.000	1892.000	10130.000	1894.000	10140.000
GR	1896.000	10641.000	1898.000	10975.000	1900.000	11105.000	1902.000	11345.000	0.000	0.000
QT	2.000	23000.000	32000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.037	0.037	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000
500-YEAR LOB BREAKOUT OF 6,500 CFS D/S OF I-15 (REJOINS MAIN CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW

DISTRIBUTION AT I-15 (5,000 CFS) & A SPLIT FLOW MODEL OF THE
LOB RIDGE D/S OF I-15 (1,500 CFS)

X1	10.686	23.000	9940.000	10660.000	115.000	90.000	115.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1859.700	8085.000
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1898.000	9700.000
GR	1898.000	9915.000	1896.000	9935.000	1894.300	9940.000	1885.100	9960.000	1884.700	10000.000
GR	1885.100	10040.000	1894.300	10060.000	1896.000	10070.000	1898.000	10100.000	1898.000	10450.000
GR	1900.000	10300.000	1902.000	11360.000	1904.000	11500.000	0.000	0.000	0.000	0.000
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.100
NC	0.037	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8000.000	0.000	0.000	0.000

**** I-15 NORTH ****
2* DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.697	22.000	9945.000	10060.000	55.000	55.000	55.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	1899.000	1898.600	0.000	0.000	0.000	0.000	15.000
BT	17.000	6430.000	1904.000	0.000	6820.000	1902.000	0.000	7810.000	1900.000	0.000
BT	7970.000	1899.900	0.000	8185.000	1859.700	0.000	8220.000	1899.700	0.000	8530.000
BT	1898.500	0.000	8800.000	1898.600	0.000	9140.000	1898.100	0.000	9695.000	1899.000
BT	0.000	9795.000	1859.000	0.000	9895.000	1899.000	0.000	9995.000	1895.000	0.000
BT	10075.000	1899.000	0.000	10320.000	1900.000	0.000	10670.000	1902.000	0.000	11270.000
BT	1904.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1859.700	8085.000
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1898.000	9625.000
GR	1896.000	9935.000	1890.000	9945.000	1886.000	9970.000	1885.500	9975.000	1885.500	10025.000
GR	1886.000	10035.000	1890.000	10060.000	1896.000	10070.000	1898.000	10090.000	1900.000	10290.000
GR	1902.000	10850.000	1904.000	11300.000	0.000	0.000	0.000	0.000	0.000	0.000

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ET	0.000	7.100	0.000	0.000	0.000	0.000	7380.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	10.700	23.000	9945.000	10060.000	15.000	15.000	15.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1906.000	6210.000	1904.000	6560.000	1903.900	6805.000	1902.000	7285.000	1903.100	7380.000
GR	1903.000	7680.000	1902.800	8185.000	1902.000	8465.000	1900.000	9160.000	1898.000	9560.000
GR	1898.000	9900.000	1890.000	9945.000	1886.000	9965.000	1885.500	9975.000	1885.500	10025.000
GR	1886.000	10035.000	1890.000	10060.000	1896.000	10075.000	1898.000	10145.000	1900.000	10235.000
GR	1902.000	10805.000	1904.000	11205.000	1906.000	11575.000	0.000	0.000	0.000	0.000
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.500
ET	0.000	7.100	0.000	0.000	0.000	0.000	7380.000	0.000	0.000	0.000

**** I-15 SOUTH ****
2* DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.710	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	1899.000	1898.500	0.000	0.000	0.000	0.000	15.000
BT	19.000	6210.000	1906.000	0.000	6560.000	1904.000	0.000	6805.000	1903.900	0.000
BT	7285.000	1902.000	0.000	7380.000	1903.100	0.000	7680.000	1903.000	0.000	8185.000
BT	1902.800	0.000	8465.000	1902.000	0.000	9045.000	1901.900	0.000	9160.000	1900.000
BT	0.000	9535.000	1899.600	0.000	9920.000	1899.500	0.000	10100.000	1899.500	0.000
BT	10200.000	1899.900	0.000	10235.000	1900.000	0.000	10400.000	1900.900	0.000	10805.000
BT	1902.000	0.000	11205.000	1904.000	0.000	11575.000	1906.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 10.340
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7900.0 10835.0 TYPE= 1 TARGET= -7900.000
SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT
CENTERLINE STATION AT 10340

10.34	11.96	1883.96	1383.96	0.00	1884.92	0.96	0.00	0.00	1882.00
23000.	10358.	9524.	3119.	3457.	826.	672.	0.	0.	1880.00
0.00	3.00	11.53	4.64	0.050	0.035	0.037	0.000	1872.00	8037.12
0.003999	450.	450.	420.	0	41	0	0.00	2207.19	10349.15

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1883.96

STA=	8037.	8600.	8875.	8975.	9185.	9635.	9775.	9965.	10055.	10190.	10310.	10349.
PER Q=	3.6	5.4	3.5	6.3	15.8	4.9	5.7	41.4	9.1	4.1	0.4	
AREA=	634.1	585.3	215.7	411.1	970.9	302.0	371.9	826.2	399.3	234.9	38.3	
VEL=	1.3	2.2	3.7	3.5	3.7	3.7	3.5	11.5	5.2	4.0	2.5	

1490 NH CARD USED
*SECNO 10.460

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8515.0 10575.0 TYPE= 1 TARGET= -8515.000
CENTERLINE STATION AT 10000

10.46	10.43	1886.53	1886.53	0.00	1887.82	1.29	2.68	0.10	1880.00
23000.	6717.	11170.	5113.	1514.	944.	781.	58.	26.	1880.00
1.02	4.44	11.83	6.55	.042	0.035	0.037	0.000	1876.10	8847.67
0.004716	600.	600.	700.	2	5	0	0.00	1418.89	10314.77

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 10.46 CWSEL= 1886.53

STA=	8848.	9695.	9815.	9900.	9935.	10020.	10075.	10155.	10315.
PER Q=	17.1	7.4	3.9	0.9	48.6	11.4	7.9	3.0	
AREA=	941.7	345.6	199.3	27.1	944.0	304.2	282.4	154.2	
VEL=	4.2	4.9	4.5	7.2	11.8	8.6	6.4	3.9	

*SECNO 10.490

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8075.0 10705.0 TYPE= 1 TARGET= -8075.000
CENTERLINE STATION AT 5188

10.49	10.94	1887.94	0.00	0.00	1888.71	0.77	0.83	0.05	1880.00

23000.	12557.	4294.	6149.	2330.	372.	1072.	75.	32.	1880.00	
0.03	5.39	11.53	5.74	0.042	0.035	0.037	0.000	1877.80	9221.97	
0.003832	25	17	14	3	0	1	0.00	1136.84	10358.81	

FLOW DISTRIBUTION FOR SECNO= 10.49 CWSEL= 1887.54

STA=	9222.	9640.	9860.	9925.	9975.	10015.	10035.	10170.	10260.	10359.
PER Q=	14.4	21.5	5.9	13.8	18.7	4.1	14.3	5.6	2.5	
AREA=	836.3	865.0	252.3	376.6	372.3	118.6	530.8	263.9	158.2	
VEL=	3.9	5.5	5.4	8.4	11.5	8.0	6.2	5.1	3.6	

CCHV= 0.300 CEHV= 0.500
*SECNO 10.54

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 1887.70 MAX ELLC= 1890.70

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8410.0 11050.0 TYPE= 1 TARGET= -8410.000
CENTERLINE STATION AT 10000

10.54	13.18	1892.98	1890.98	0.00	1892.00	1.02	1.64	0.12	1886.00	
23000.	9358.	12051.	1591.	1606.	1232.	330.	55.	41.	1888.00	
0.04	5.63	9.79	4.82	0.042	0.035	0.037	0.000	1877.80	8679.21	
0.012486	279.	260.	220.	25	10	0	-1408.61	1765.68	10448.89	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWIE	ENDST

*SECNO 10.550

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 1887.20 MAX ELLC= 1890.00

3470 ENCROACHMENT STATIONS= 8260.0 11380.0 TYPE= 1 TARGET= -8260.000
**** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
NORMAL BRIDGE
1% DEBRIS LOAD
CENTERLINE STATION AT 10000

10.55	14.38	1892.38	0.00	0.00	1892.63	0.26	0.40	0.23	1886.00	
23000.	12547.	7228.	3225.	3391.	1455.	1031.	104.	44.	1888.00	
0.04	3.70	4.97	3.13	0.042	0.035	0.037	0.000	1878.00	8478.67	
0.002608	82.	82.	82.	2	0	0	-932.76	2256.03	10734.71	

1490 NH CARD USED
*SECNO 10.620

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8035.0 11275.0 TYPE= 1 TARGET= -8035.000

CENTERLINE STATION AT 10000

10.62	19.82	1895.52	1895.52	0.00	1896.70	1.18	.64	0.46	1891.70	
23000.	9129.	9604.	4267.	3314.	744.	968.	142.	60.	1884.20	
0.06	2.75	12.91	4.41	0.037	0.025	0.039	0.000	1875.70	8185.58	
0.001635	320.	335.	245.	20	28	0	0.00	2171.68	10437.02	

FLOW DISTRIBUTION FOR SECNO= 10.62 CWSEL= 1895.52

STA=	8186.	8549.	9104.	9554.	9849.	9936.	9966.	10020.	10082.	10437.
PER Q=	3.8	12.7	5.5	10.7	5.0	2.0	41.8	16.1	2.5	
AREA=	427.7	1121.9	570.5	786.1	295.9	110.1	744.2	522.1	445.6	
VEL=	2.1	2.6	2.2	3.1	3.9	4.1	12.9	7.1	1.3	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 10.627

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 8035.0 11390.0 TYPE= 1 TARGET= -8035.000

CENTERLINE STATION AT 10000

10.63	20.05	1895.95	1895.95	0.00	1897.21	1.26	0.10	0.04	1892.40	
23000.	8001.	9979.	5020.	2697.	760.	1285.	149.	63.	1884.40	
0.06	2.97	13.13	3.91	0.037	0.025	0.048	0.000	1875.50	8138.61	
0.001685	62.	62.	62.	20	5	0	0.00	1926.58	10432.33	

1490 NH CARD USED
*SECNO 10.634

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8045.0 11375.0 TYPE= 1 TARGET= -8045.000

CENTERLINE STATION AT 10000

10.63	20.83	1896.93	0.00	0.00	1897.45	0.52	0.02	0.22	1891.40	
23000.	6056.	15531.	1413.	3568.	2218.	1606.	155.	65.	1887.00	
0.06	1.53	7.00	0.88	0.037	0.025	0.061	0.000	1876.10	8093.30	
0.000318	33.	38.	38.	3	0	0	0.00	2581.10	10915.16	

1490 NH CARD USED
*SECNO 10.642

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 8050.0 11375.0 TYPE= 1 TARGET= -8050.000

CENTERLINE STATION AT 10000

10.64	20.60	1896.80	0.00	0.00	1897.60	0.79	0.01	0.13	1889.50	
23000.	4556.	17443.	1001.	3586.	2132.	1119.	162.	67.	1886.50	
0.06	1.27	8.18	0.89	0.037	0.018	0.054	0.000	1876.20	8118.81	
0.000224	40.	40.	40.	2	0	0	0.00	2245.18	10720.68	

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TKA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

149 NH CARD USED
*SECNO 10.649

3265 DIVIDED FLOW

347 ENCROACHMENT STATIONS= 8070.0 11380.0 TYPE= 1 TARGET= -8070.000
CENTERLINE STATION AT 10000

10.65	20.32	1896.62	1893.20	0.00	1897.80	1.17	0.01	0.19	1886.30
23000.	4039.	17261.	1700.	2497.	1725.	870.	167.	65.	1886.30
0.06	1.62	9.98	1.95	0.033	0.018	0.032	0.000	1876.30	8178.11
0.000349	39.	39.	39.	4	15	0	0.00	2049.20	10686.33

*SECNO 10.650

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 8070.0 11380.0 TYPE= 1 TARGET= -8070.000
CENTERLINE STATION AT 10000

10.65	20.32	1896.62	1890.32	0.00	1897.81	1.19	0.00	0.01	1889.30
23000.	3986.	17354.	1660.	2478.	1725.	862.	167.	65.	1889.30
0.06	1.61	10.04	1.92	0.034	0.018	0.033	0.000	1876.30	8178.15
0.000386	1.	1.	1.	0	15	0	0.00	2048.78	10686.10

149 NH CARD USED
*SECNO 10.657

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 8080.0 11355.0 TYPE= 1 TARGET= -8080.000
CENTERLINE STATION AT 10000

10.66	20.12	1896.62	1889.79	0.00	1897.84	1.22	0.02	0.02	1894.50
23000.	3662.	17422.	1917.	2129.	1715.	1468.	172.	71.	1894.50
0.06	1.72	10.16	1.31	0.035	0.018	0.045	0.000	1876.50	8186.93
0.000442	41.	41.	41.	0	15	0	0.00	2074.51	10801.13

*SECNO 10.658

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TKA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8080.0 11355.0 TYPE= 1 TARGET= -8080.000
**** DROP STRUCTURE ****
CENTERLINE STATION AT 10000

10.66	12.37	1896.87	1896.87	0.00	1898.26	1.40	0.00	0.09	1894.50	
23000.	6643.	13310.	3343.	2448.	1048.	1663.	172.	71.	1894.50	
0.06	2.72	12.42	2.01	0.035	0.018	0.047	0.000	1884.50	8177.44	
0.001055	1.	1.	1.	4	11	0	0.00	2157.15	10828.33	

1490 NH CARD USED
*SECNO 10.665

3265 DIVIDED FLOW

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 8665.0 11345.0 TYPE= 1 TARGET= -8665.000
CENTERLINE STATION AT 10000

10.66	12.61	1897.11	1897.11	0.00	1898.41	1.30	0.04	0.03	1894.30
23000.	5045.	13329.	4126.	2171.	1190.	1577.	177.	73.	1894.30
0.07	2.32	11.62	2.62	0.037	0.018	0.035	0.000	1884.50	8167.36
0.000980	40.	40.	40.	2	5	0	0.00	2148.85	10825.64

*SECNO 10.686

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000
500-YEAR LOB BREAKOUT OF 6,500 CFS D/S OF I-15 (REJOINS MAIN CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW DISTRIBUTION AT I-15 (5,000 CFS) & A SPLIT FLOW MODEL OF THE LOB RIDGE D/S OF I-15 (1,500 CFS)

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
10.69	12.44	1897.14	1897.14	0.00	1902.08	4.55	0.20	1.82	1894.30
23000.	50.	22853.	97.	16.	1277.	30.	184.	76.	1894.30
0.07	3.05	17.93	3.26	0.037	0.025	0.037	0.000	1884.70	9923.62
0.004051	115.	113.	90.	20	8	0	0.00	163.45	10087.07

FLOW DISTRIBUTION FOR SECNO= 10.69 CWSEL= 1897.14

STA=	9924.	9935.	9940.	10060.	10070.	10087.
PER Q=	0.0	0.2	99.4	0.3	0.1	
AREA=	6.5	9.9	1276.6	19.9	9.7	
VEL=	1.7	3.9	17.9	4.0	1.8	

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1896.55 ,NOT 1897.14 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COPG	RDLEN	BLC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.10

*SECNO 10.697
PRESS FLOW BECAUSE EGLWC OF 1907.01 EXCEEDS 1.5 DEPTH
6870 D.S. ENERGY OF 1902.08 HIGHER THAN COMPUTED ENERGY OF 1900.14

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
1906.11	1907.01	0.00	9735.	13309.	1195.	1195.	1899.00	1898.60

347 ENCROACHMENT STATIONS= 8000.0 11300.0 TYPE= 1 TARGET= -8000.000
**** I-15 NORTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.70	16.41	1901.91	0.00	0.00	1902.08	0.17	0.00	0.00	1890.00	
23000.	12646.	8639.	1745.	6956.	1759.	1282.	192.	78.	1890.00	
0.07	1.82	4.90	1.36	0.037	0.036	0.037	0.000	1885.50	8000.00	
0.000353	55.	55.	55.	4	0	5	0.00	2825.46	10825.46	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1901.91

STA=	6000.	8530.	8830.	9140.	9625.	9935.	9945.	10060.	10290.	10825.
PER Q=	8.3	6.7	9.3	15.1	14.4	1.1	37.4	6.0	1.6	
AREA=	1352.3	907.8	1211.2	1873.2	1922.8	89.1	1758.7	769.8	512.0	
VEL=	1.4	1.7	1.8	1.9	2.2	2.9	4.9	1.8	0.7	

*SECNO 10.700

3470 ENCROACHMENT STATIONS= 7380. 11575.0 TYPE= 1 TARGET= -7380.000
CENTERLINE STATION AT 10000

10.70	16.52	1901.82	0.00	0.00	1902.20	0.38	0.01	0.11	1890.00	
23000.	7405.	11538.	4056.	3346.	1759.	1448.	194.	78.	1890.00	
0.07	2.21	6.56	2.80	0.037	0.036	0.037	0.000	1885.50	8529.05	
0.000634	15.	15.	15.	2	0	0	0.00	2223.41	10752.47	

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1901.82

STA=	8529.	9163.	9560.	9900.	9945.	10060.	10075.	10145.	10235.	10752.
PER Q=	2.4	9.9	13.9	6.0	50.2	4.0	5.4	2.2	1.9	
AREA=	572.3	1126.3	1297.3	351.7	1758.8	177.2	547.1	253.4	469.8	
VEL=	0.9	2.0	2.5	3.9	6.6	5.2	4.0	2.0	0.9	

SPECIAL BRIDGE

SB	XK	XKOR	COFG	RDLEN	BWC	EWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.50

*SECNO 10.710
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
1910.79	1902.24	0.04	16806.	6313.	1195.	1195.	1899.00	1899.50

3470 ENCROACHMENT STATIONS= 7380.0 11575.0 TYPE= 1 TARGET= -7380.000

**** I-15 SOUTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.71	16.70	1902.20	0.00	0.00	1502.49	0.30	0.30	0.00	1890.00
23000.	8046.	10724.	4231.	3916.	1803.	1732.	204.	82.	1890.00
0.06	2.5	5.95	2.44	0.037	0.035	0.037	0.000	1885.50	8395.45
0.000504	60.	60.	60.	2	0	5	0.00	2449.30	10844.75

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 10.71 CWSEL= 1902.20

STA=	8395.	9160.	9560.	9900.	9945.	10060.	10075.	10145.	10235.	10805.	10845.
PER Q=	3.7	10.9	14.6	5.8	46.6	3.8	9.1	2.5	3.0	0.0	
AREA=	840.3	1279.5	1427.6	368.9	1802.9	183.0	573.9	287.9	683.3	3.9	
VEL=	1.0	2.0	2.3	3.6	5.9	4.8	3.7	2.0	1.0	0.2	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - 500-YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	-1.000000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	.00	-1.000	0.00	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 10.340
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 6505.0 10835.0 TYPE= 1 TARGET= -6505.000
SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT
CENTERLINE STATION AT 10000

10.34	13.87	1885.87	1885.87	1883.96	1887.11	1.30	0.00	0.00	1882.00
82000.	52260.	16873.	12867.	10137.	998.	1776.	0.	0.	1880.00
0.00	5.16	16.91	7.24	0.055	0.035	0.037	0.000	1872.00	6505.00
0.006686	450.	450.	420.	0	47	0	0.00	4144.92	10794.98

0
FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1885.87

STA=	6505.	6545.	6660.	7670.	8170.	8500.	8790.	8875.	8975.	9185.	9635.	9775.	9965.
PER Q=	4.3	3.5	3.6	3.5	3.1	4.1	3.1	3.7	7.1	16.4	5.1	6.4	
AREA=	299.7	389.6	1442.9	1223.0	962.9	1121.3	345.6	406.6	812.0	1829.9	569.3	734.6	
VEL=	11.8	7.3	2.0	2.3	2.6	3.0	7.4	7.4	7.1	7.4	7.4	7.1	
STA=	9965.	10055.	10190.	10310.	10675.	10795.							
PER Q=	20.6	7.6	4.6	3.4	0.2								
AREA=	998.0	657.0	464.0	551.2	64.0								
VEL=	16.9	9.4	8.1	4.7	2.2								

1490 NH CARD USED
*SECNO 10.460
CENTERLINE STATION AT 10000

10.46	13.33	1889.43	0.00	1886.53	1890.86	1.43	3.65	0.04	1880.00
75500.	39152.	19405.	16943.	7106.	1278.	1952.	164.	52.	1880.00
0.02	5.51	15.19	8.68	0.045	0.035	0.037	0.000	1876.10	7319.22
0.005188	600.	600.	700.	3	0	0	0.00	3213.20	10532.43

0
FLOW DISTRIBUTION FOR SECNO= 10.46 CWSEL= 1889.43

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	7319.	8515.	8925.	9215.	9390.	9695.	9815.	9880.	9905.	10025.	10075.	10155.	10275.
PER Q=	5.1	5.5	6.8	4.0	17.8	7.5	3.1	2.1	25.7	7.4	6.8	5.5	
AREA=	1843.6	926.3	923.4	548.2	1682.6	693.9	317.4	170.8	1277.7	463.8	514.6	531.9	
VEL=	2.1	4.5	5.5	5.5	8.0	8.2	7.3	9.1	15.2	12.0	10.0	7.8	
STA=	10275.	10532.											
PER Q=	2.8												
AREA=	441.8												
VEL=	4.7												

*SECNO 10.490
CENTERLINE STATION AT 5188

10.49	13.72	1890.72	0.00	1887.54	1891.96	1.24	1.08	0.02	1880.00
75500.	47647.	7715.	20138.	6759.	484.	2192.	214.	66.	1880.00
0.03	7.05	15.94	9.19	0.042	0.035	0.037	0.000	1877.00	7619.25
0.005158	250.	170.	140.	2	0	0	0.00	2910.33	10529.58

0
FLOW DISTRIBUTION FOR SECNO= 10.49 CWSEL= 1890.72

STA=	7619.	7890.	8975.	9215.	9420.	9640.	9860.	9925.	9975.	10015.	10170.	10260.	10325.
PER Q=	3.5	4.4	4.3	6.2	13.6	17.7	5.2	8.2	10.2	15.1	6.3	3.3	
AREA=	581.9	1071.3	653.8	763.5	1259.3	1479.3	433.8	516.2	484.0	1082.3	515.2	307.1	
VEL=	4.6	3.1	5.0	6.1	8.1	9.1	5.0	12.0	15.9	10.6	9.2	8.1	
STA=	10325.	10530.											
PER Q=	1.9												
AREA=	287.1												

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     VEL=      5.1

 CCH=    0.300 CEHV=    0.500
*SECNO 10.540

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD= 1887.70 MAX ELLC= 1890.70

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.54     15.00   1892.80   1892.80   1890.96   1894.18      1.38      2.07      0.07   1886.00
   75500.    46775.   17619.    11106.     5390.     1491.     1368.      267.       86.    1888.00
     0.03      8.68     11.81      8.12     0.042     0.035     0.037     0.000   1877.80   7692.93
 0.014099     270.      260.      220.         3        10         0  -1419.68   3135.30  10828.24
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   6         QLOB      QCH       QROB      ALOB      ACH       ARCB      VCL       TEA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

*SECNO 10.550

3301 HV CHANGED MORE THAN HVINS

337  NORMAL BRIDGE,NRD=  8 MIN ELTRD= 1887.20 MAX ELLC= 1890.00

                **** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
                NORMAL BRIDGE
                1* DEBRIS LOAD
                CENTERLINE STATION AT 10000
    10.55     16.44   1894.44      0.00   1892.38   1894.97      0.53      0.53      0.26   1886.00
   75500.    46511.   11832.    15157.     8510.     1758.     2778.      287.       92.    1888.00
     0.04      5.70     6.73      5.46     0.042     0.035     0.037     0.000   1878.00   7613.99
 0.003720      82.      82.      82.          3         0         0  -932.76   3493.53  11107.52
0
1490 NH CARD USED
*SECNO 10.620

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.62     22.01   1897.71   1897.71   1895.52   1899.29      1.58      1.02      0.53   1891.70
   75500.    48243.   16486.    10771.     8718.      362.     2611.      375.      116.    1884.20
     0.05      5.53     19.13      4.13     0.037     0.025     0.051     0.000   1875.70   7621.47
 0.002950     320.      335.      245.        20        16         0      0.00   3435.16  11056.63
0
FLOW DISTRIBUTION FOR SECNO=     10.62          CWSEL=   1897.71

STA=    7621.     7795.     7975.     8429.     8549.     9104.     9308.     9554.     9845.     9936.     9966.    10020.    10082.
 PER Q=     5.1       3.7       5.3       3.9      17.6       3.3       6.9      11.9       4.7       1.7      21.8       9.7
  AREA=   681.3     577.1    1007.4     504.7    2334.3     559.3     959.6    1432.6     485.9     175.7     861.9     657.6
   VEL=     5.6       4.8       4.0       5.7       5.7       4.5       5.4       6.3       7.3       7.5      19.1      11.1
STA=   10082.    10590.    11057.
 PER Q=     4.0       0.6
  AREA=  1457.6     495.4
   VEL=     2.1       0.9

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWIC	ENDST

1490 NH CARD USED
*SECNO 10.627
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.63	22.33	1898.23	1898.23	1895.95	1899.84	1.60	0.18	0.01	1892.40
75500.	45940.	16987.	12572.	8390.	886.	3377.	393.	121.	1884.40
0.05	5.48	19.18	3.72	0.037	0.025	0.062	0.000	1875.90	7574.21
0.002930	62.	62.	62.	20	5	0	0.00	3499.25	11073.46

1490 NH CARD USED
*SECNO 10.634
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.63	22.36	1898.46	1898.46	1896.93	1900.44	1.97	0.07	0.19	1891.40
75500.	32267.	37524.	5709.	8263.	2411.	3067.	405.	124.	1887.00
0.05	3.90	15.56	1.86	0.037	0.025	0.073	0.000	1876.10	7575.93
0.001406	38.	38.	38.	20	5	0	0.00	3503.84	11079.76

1490 NH CARD USED
*SECNO 10.642
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.64	23.20	1899.40	1899.40	1896.80	1901.59	2.19	0.04	0.11	1889.50
75500.	30934.	39507.	5059.	9879.	2443.	3425.	418.	127.	1886.50
0.05	3.13	16.17	1.48	0.037	0.018	0.071	0.000	1876.20	7612.28
0.000730	40.	40.	40.	20	5	0	0.00	3464.08	11076.36

1490 NH CARD USED
*SECNO 10.649
3280 CROSS SECTION 10.65 EXTENDED 0.36 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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CENTERLINE STATION AT 10000

10.65	23.66	1899.96	1899.96	1896.62	1902.02	2.06	0.03	0.04	1886.30
75500.	33995.	33919.	7586.	10141.	2017.	3920.	432.	131.	1886.30
0.05	3.35	16.82	1.94	0.036	0.018	0.059	0.000	1876.30	7520.00
0.000806	39.	39.	39.	20	5	0	0.00	3597.17	11117.17

*SECNO 10.650
3280 CROSS SECTION 10.65 EXTENDED 1.68 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
CENTERLINE STATION AT 10000

10.65	24.99	1901.29	1899.89	1896.62	1902.32	1.04	0.00	0.31	1889.30
75500.	39369.	27711.	8420.	13336.	2130.	5438.	433.	131.	1889.30

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      0.05       2.95      13.01       1.55      0.036      0.018      0.065      0.000   1876.30   7520.00
 0.000463          1.         1.         1.         20          6          0       0.00   3766.29  11286.29

1498 NH CARD USED
*SECNO 10.657
3280 CROSS SECTION      10.66 EXTENDED       1.83 FEET

                  CENTERLINE STATION AT 10000
     10.66      25.13   1901.63      0.00   1896.62   1902.42       0.79       0.02       0.08   1894.50
    75500.    38217.    25217.    12066.    13442.     2147.     6506.      453.       134.    1894.50
      0.06       2.84      11.74      1.85      0.036      0.018      0.057      0.000   1876.50   7525.00
 0.000438         41.        41.        41.          3          0          0       0.00   3785.62  11310.62

*SECNO 10.658
3280 CROSS SECTION      10.66 EXTENDED       2.22 FEET

                  **** DROP STRUCTURE ****
                  CENTERLINE STATION AT 10000
     10.66      17.52   1902.02      0.00   1896.87   1902.51       0.49       0.00       0.09   1894.50
    75500.    45169.    16368.    14262.    14395.     1492.     7012.      454.       134.    1894.50
      0.06       3.14      10.77      2.03      0.036      0.018      0.057      0.000   1884.50   7525.00
 0.000496          1.         1.         1.          3          0          0       0.00   3830.00  11355.00

1498 NH CARD USED
*SECNO 10.665
3280 CROSS SECTION      10.66 EXTENDED       2.84 FEET

                  CENTERLINE STATION AT 10000
     10.66      17.54   1902.04      0.00   1897.11   1902.53       0.48       0.02       0.08   1894.30
    75500.    37569.    18133.    19748.    13558.     1782.     6669.      474.       136.    1894.30
      0.06       2.77      10.20      2.96      0.037      0.018      0.036      0.000   1884.50   7480.00
 0.000441         41.        41.        41.          3          0          0       0.00   3865.00  11345.00

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   SECNO      DEPTH     CHSEL     CRIWS     HSELK      EG         HV         HL        CLOSS     BANK ELEV
   G          GLOB      QCH       QROB      ALOB       ACH        AROB       VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL        XNCH       XNR        WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC        ICONT      CORAR     TOPWID      ENDST

*SECNO 10.686

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED HSEL,CHSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                  CENTERLINE STATION AT 10000
                  500-YEAR LOB BREAKOUT OF 6,500 CFS D/S OF I-15 (REJOINS MAIN
                    CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW
                    DISTRIBUTION AT I-15 (5,000 CFS) & A SPLIT FLOW MODEL OF THE
                    LOB RIDGE D/S OF I-15 (1,500 CFS)
     10.69      17.98   1902.68   1902.68   1897.14   1903.54       1.26       0.08       0.39   1894.30
    62000.    38536.    28099.    15365.    10335.     1942.     4134.      522.       148.    1894.30
      0.06       3.73      14.47      3.72      0.037      0.025      0.037      0.000   1884.70   6686.60
 0.001512        115.       113.        90.         20          5          0       0.00   4721.28  11407.89

FLOW DISTRIBUTION FOR SECNO=      10.69          CHSEL=    1902.68

STA=     6687.     7810.     8220.     8530.     8800.     9140.     9700.     9915.     9940.    10060.    10450.    10800.    11408.
  PER Q=     4.5       4.5       5.0       5.5       7.5      13.7       5.4       1.0      34.3      10.3       5.9       2.6
    AREA=  1712.9    1172.0    1111.1    1116.2    1473.6    2595.1    1007.1     151.4    1942.1    1885.3    1289.4     959.5
     VEL=     2.2       3.1       3.7       4.0       4.2       4.3       4.4       5.2      14.5       4.5       3.7       2.2
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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.10

*SECNO 10.697
6870 D.S. ENERGY OF 1903.94 HIGHER THAN COMPUTED ENERGY OF 1903.57

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
1903.57	1903.49	0.06	74879.	7212.	1195.	1195.	1895.00	1898.60

2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.70	17.81	1903.31	0.00	1901.91	1903.94	0.63	0.00	0.00	1890.00
82000.	52979.	29392.	8629.	12807.	1921.	2590.	543.	154.	1890.00
0.07	4.14	10.62	3.33	0.037	0.035	0.037	0.000	1885.50	6562.40
0.001476	55.	55.	55.	2	0	8	0.00	4584.84	11147.24

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1903.31

STA=	6562.	7810.	8085.	8530.	8800.	9140.	9625.	9935.	9945.	10060.	10290.	10850.	11147.
PER Q=	7.8	4.0	8.6	6.9	9.3	14.6	12.6	0.8	24.9	6.0	4.3	0.3	
AREA=	2468.0	944.3	1797.4	1288.2	1690.2	2556.4	1959.5	103.2	1920.7	1093.8	1299.8	196.3	
VEL=	2.6	3.5	3.9	4.4	4.5	4.7	5.3	6.6	10.6	4.5	2.7	1.2	

*SECNO 10.700

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.70	18.11	1903.61	1903.61	1901.82	1905.00	1.39	0.03	0.28	1890.00
82000.	36415.	28306.	17279.	7282.	1965.	3035.	548.	156.	1890.00
0.07	5.00	14.41	5.69	0.037	0.035	0.037	0.000	1885.50	6879.01
0.002639	15.	15.	15.	20	5	0	0.00	4247.40	11126.41

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1903.61

STA=	6879.	9160.	9560.	9900.	9945.	10060.	10145.	10805.	11126.
PER Q=	11.6	12.8	15.1	4.9	34.5	10.5	10.0	0.6	
AREA=	3100.6	1842.8	1906.4	432.3	1964.8	876.6	1900.7	258.2	
VEL=	3.1	5.7	6.5	9.2	14.4	9.9	4.3	1.8	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.50

*SECNO 10.710
6870 D.S. ENERGY OF 1905.00 HIGHER THAN COMPUTED ENERGY OF 1904.95
PRESSURE AND WEIR FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
2017.70	1905.24	0.24	73180.	8907.	1195.	1195.	1899.00	1899.50

**** I-15 SOUTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.71	18.23	1903.73	0.00	1902.20	1905.00	1.27	0.00	0.00	1890.00
82000.	37094.	27490.	17416.	7679.	1980.	3174.	565.	162.	1890.00
0.67	4.83	13.89	5.49	0.037	0.035	0.037	0.000	1885.50	6646.51
0.002427	60.	60.	60.	5	6	6	0.00	4305.64	11152.14

FLOW DISTRIBUTION FOR SECNO= 10.71 CWSEL= 1903.73

STA=	6847.	8465.	9160.	9560.	9900.	9945.	10060.	10145.	10805.	11152.
PER Q=	3.5	8.3	12.9	15.1	4.8	33.5	10.3	10.3	0.7	
AREA=	1494.9	1901.3	1894.3	1950.1	438.1	1979.6	887.6	1985.6	301.3	
VEL=	1.9	3.9	5.6	6.3	8.9	13.9	9.5	4.2	1.8	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	10.340	0.00	0.00	0.00	1872.00	23000.00	1883.96	1883.96	1884.92	39.99	11.53	4955.78	3637.24
*	10.340	0.00	0.00	0.00	1872.00	82000.00	1885.87	1885.87	1887.17	66.86	16.91	12911.58	10028.22
*	10.460	600.00	0.00	0.00	1876.10	23000.00	1886.53	1886.53	1887.82	47.16	11.83	3239.09	3349.15
	10.460	600.00	0.00	0.00	1876.10	75500.00	1889.43	0.00	1890.86	51.88	15.19	10335.88	10481.75
	10.490	170.00	0.00	0.00	1877.00	23000.00	1887.94	0.00	1888.71	38.32	11.53	3774.16	3715.66
	10.490	170.00	0.00	0.00	1877.00	75500.00	1890.72	0.00	1891.96	51.58	15.94	9434.73	10512.59
*	10.540	260.00	1887.70	1890.70	1877.80	23000.00	1891.98	1890.98	1892.00	124.86	9.79	3167.62	2058.36
*	10.540	260.00	1887.70	1890.70	1877.80	75500.00	1892.80	1892.80	1894.18	140.99	11.81	8245.43	6358.57
	10.550	82.00	1887.20	1890.00	1876.00	23000.00	1892.38	0.00	1892.63	26.08	4.97	5877.05	4504.06
	10.550	82.00	1887.20	1890.00	1876.00	75500.00	1894.44	0.00	1894.97	37.20	6.73	13046.16	12378.08

*	10.620	335.00	0.00	0.00	1875.70	23000.00	1895.52	1895.52	1896.70	16.35	12.91	5025.84	5687.72
*	10.620	335.00	0.00	0.00	1875.70	75500.00	1897.71	1897.71	1899.29	29.50	19.13	12190.20	13900.08
*	10.627	62.00	0.00	0.00	1875.90	23000.00	1895.95	1895.95	1897.21	16.85	13.13	4742.05	5602.46
*	10.627	62.00	0.00	0.00	1875.90	75500.00	1898.23	1898.23	1899.84	29.30	19.18	12652.56	13947.26
	10.634	38.00	0.00	0.00	1876.10	23000.00	1896.93	0.00	1897.45	3.18	7.00	7792.50	12892.05
*	10.634	38.00	0.00	0.00	1876.10	75500.00	1898.46	1898.46	1900.44	14.06	15.56	13760.90	20132.18
	10.642	40.00	0.00	0.00	1876.20	23000.00	1896.80	0.00	1897.60	2.24	8.18	6837.34	15364.39
*	10.642	40.00	0.00	0.00	1876.20	75500.00	1899.40	1899.40	1901.59	7.30	16.17	15747.31	27948.87
	10.649	39.00	0.00	0.00	1876.30	23000.00	1896.62	1890.20	1897.80	3.49	9.98	5896.74	12317.04
*	10.649	39.00	0.00	0.00	1876.30	75500.00	1899.96	1899.96	1902.02	8.06	16.82	16077.97	26586.04
	10.650	1.00	0.00	0.00	1876.30	23000.00	1896.62	1890.32	1897.81	3.80	10.04	5065.00	11800.74
*	10.650	1.00	0.00	0.00	1876.30	75500.00	1901.29	1899.89	1902.32	4.83	13.01	20904.42	34350.53

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	10.657	41.00	0.00	0.00	1876.50	23000.00	1896.62	1889.79	1897.84	4.42	10.16	5312.01	10934.51
	10.657	41.00	0.00	0.00	1876.50	75500.00	1901.63	0.00	1902.42	4.38	11.74	22095.80	36069.66
*	10.658	1.00	0.00	0.00	1884.50	23000.00	1896.87	1896.87	1898.26	10.55	12.42	5158.69	7080.72
	10.658	1.00	0.00	0.00	1884.50	75500.00	1902.02	0.00	1902.51	4.96	10.77	22859.57	33917.24
*	10.665	40.00	0.00	0.00	1884.50	23000.00	1897.11	1897.11	1898.41	9.80	11.62	4938.31	7348.65
	10.665	40.00	0.00	0.00	1884.50	75500.00	1902.04	0.00	1902.53	4.41	10.20	22009.56	35957.73
*	10.686	113.00	0.00	0.00	1884.70	23000.00	1897.14	1897.14	1902.08	40.51	17.90	1322.57	3613.57
*	10.686	113.00	0.00	0.00	1884.70	82000.00	1902.68	1902.68	1903.94	15.12	14.47	16415.45	21085.89
*	10.697	55.00	1898.60	1899.00	1885.50	23000.00	1901.91	0.00	1902.08	3.53	4.90	9996.99	12244.11
	10.697	55.00	1898.60	1899.00	1885.50	82000.00	1903.31	0.00	1903.94	14.76	10.62	17317.76	21344.15
	10.700	15.00	0.00	0.00	1885.50	23000.00	1901.82	0.00	1902.20	6.34	6.56	6554.42	9133.12
*	10.700	15.00	0.00	0.00	1885.50	82000.00	1903.61	1903.61	1905.00	26.39	14.41	12282.49	15963.75
	10.710	60.00	1899.50	1899.00	1885.50	23000.00	1902.20	0.00	1902.49	5.04	5.95	7450.89	10240.64
	10.710	60.00	1899.50	1899.00	1885.50	82000.00	1903.73	0.00	1905.00	24.27	13.89	12832.71	16644.71

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	10.340	23000.00	1883.96	0.00	0.00	0.00	2207.19	0.00
*	10.340	82000.00	1885.87	1.91	0.00	1.91	4144.92	0.00
*	10.460	23000.00	1886.53	0.00	2.57	0.00	1416.89	600.00
	10.460	75500.00	1889.43	2.90	3.56	2.90	3213.20	600.00
	10.490	23000.00	1887.94	0.00	1.41	0.00	1136.84	170.00
	10.490	75500.00	1890.72	2.78	1.29	2.78	2910.33	170.00
*	10.540	23000.00	1890.98	0.00	3.05	0.00	1769.68	260.00
*	10.540	75500.00	1892.80	1.82	2.08	1.82	3135.30	260.00

	10.550	23000.00	1892.38	0.00	1.39	0.00	2256.03	82.00
	10.550	75500.00	1894.44	2.07	1.64	2.07	3493.53	82.00
*	10.620	23000.00	1895.52	0.00	3.15	0.00	2171.68	335.00
*	10.620	75500.00	1897.71	2.18	3.26	2.18	3435.16	335.00
*	10.627	23000.00	1895.95	0.00	0.42	0.00	1926.58	62.00
*	10.627	75500.00	1898.23	2.29	0.53	2.29	3495.25	62.00
	10.634	23000.00	1896.93	0.00	0.98	0.00	2581.10	38.00
*	10.634	75500.00	1898.46	1.54	0.23	1.54	3503.84	38.00
	10.642	23000.00	1896.80	0.00	-0.12	0.00	2245.18	40.00
*	10.642	75500.00	1899.40	2.60	0.93	2.60	3464.08	40.00
	10.649	23000.00	1896.62	0.00	-0.18	0.00	2045.20	39.00
*	10.649	75500.00	1899.96	3.34	0.56	3.34	3597.17	39.00
	10.650	23000.00	1896.62	0.00	-0.01	0.00	2048.78	1.00
*	10.650	75500.00	1901.29	4.67	1.32	4.67	3766.29	1.00
	10.657	23000.00	1896.62	0.00	0.00	0.00	2074.91	41.00
	10.657	75500.00	1901.63	5.02	0.35	5.02	3785.62	41.00
*	10.658	23000.00	1896.87	0.00	0.25	0.00	2157.15	1.00
	10.658	75500.00	1902.02	5.15	0.39	5.15	3830.00	1.00
*	10.665	23000.00	1897.11	0.00	0.24	0.00	2146.85	40.00
	10.665	75500.00	1902.04	4.94	0.02	4.94	3865.00	40.00
*	10.686	23000.00	1897.14	0.00	0.03	0.00	163.45	113.00
*	10.686	82000.00	1902.68	5.55	0.64	5.55	4721.28	113.00
*	10.697	23000.00	1901.91	0.00	4.78	0.00	2825.46	55.00
	10.697	82000.00	1903.31	1.40	0.63	1.40	4564.84	55.00

SECNO	Q	CHSEL	DIFWSP	DIFHSX	DIFKWS	TOPWID	XLCH
10.700	23000.00	1901.82	0.00	-0.10	0.00	2223.41	15.00
* 10.700	82000.00	1903.61	1.79	0.29	1.79	4247.40	15.00
10.710	23000.00	1902.20	0.00	0.38	0.00	2449.30	60.00
10.710	82000.00	1903.73	1.54	0.12	1.54	4385.64	60.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.460 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.540 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.540 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.540 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 10.540 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.540 PROFILE= 2 MINIMUM SPECIFIC ENERGY

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 CAUTION  SECNO=    10.627  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.627  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.627  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=    10.627  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.627  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.627  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.627  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.627  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.627  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=    10.627  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.627  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.627  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.634  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.634  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.634  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.642  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.642  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.642  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.649  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.649  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.649  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.650  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.658  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.658  PROFILE= 1  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=    10.665  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.665  PROFILE= 1  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=    10.686  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.686  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.686  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=    10.686  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.686  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
1
   7-FEB-88     01:18:05                                                    PAGE   30

 CAUTION  SECNO=    10.686  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.697  PROFILE= 1  HYDRAULIC JUMP D.S.

 CAUTION  SECNO=    10.700  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.700  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.700  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

1
   7-FEB-88     01:18:57                                                    PAGE    1


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  31,32,33,34,35
   MODIFICATION -  50,51,52,53,54,55
 **************************************************
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ECF••

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      6
    1.0 ************************************************
    1.0 STA 8050 IS LOCATED ON MAP WITH TIC MARK
    1.0 0500,0100 L*B PLOTTED USING 1984 TOPO DETAILS ALONG
    1.0 EXPRESSWAY.  2.5* TALL MEDIAN BARRIER PREVENTS
    1.0 BREAKOUT TO NORTH
    1.0 ************************************************
T1          Clark County, Nevada COE - 100 year flood to Sta 11,800
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 1
J1             2                .00925                              2100
J2     1              -1
J3   150
NH       6    0.08     9190     0.14     9960    0.045     9985    0.022    10015   0.045
NH   10500   0.123    15300
QT       4    6700    28450     6700    28450
ET             7.1      7.1      9.1                9960    11800     9960    12850
X1     1.0      22     9985    10015
X2                                                                             15.0
X4       6    2093     9500   2098.7    10370     2100    10700   2099.4    11000    2100
X4   11250   2100.6    11650
GR2105.0      6700   2099.0     8050     2097     8460     2097     8850     2095    9190
GR2093.5      9240   2095.5     9760     2094     9880   2100.5     9960     2095    9985
GR    2088    9992     2088    10008     2095    10015     2098    10500     2094   11100
GR    2101   11800   2099.5    12240     2101    12850   2099.8    13580     2101   14070
GR    2099   14450     2101    15300
EJ
T1          Clark County, Nevada COE - 500 year flood to Sta 11,800
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 1
J1             3                0.00925                             2100
J2     2              -1
T1          Clark County, Nevada COE - 100 year flood to Sta 12,850
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 1
J1             4                0.00925                             2100
J2     3              -1
T1          Clark County, Nevada COE - 500 year flood to Sta 12,850
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 1
J1             5                0.00925                             2100
J2    15              -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:39:59          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1          Clark County, Nevada COE - 100 year flood to Sta 11,800
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 1

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.009250      0.00      0.0       0.  2100.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NH      6.000     0.080  9190.000     0.140  9960.000     0.045  9985.000     0.022 10015.000     0.045
NH  10500.000     0.123 15300.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      4.000  6700.000 28450.000  6700.000 28450.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     7.100     7.100     9.100     9.100     0.000  9960.000 11600.000  9960.000 12850.000
          **************************************************
          STA 8050 IS LOCATED ON MAP WITH TIC MARK
          9500,9100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
          EXPRESSWAY.  2.5' TALL MEDIAN BARRIER PREVENTS
          BREAKOUT TO NORTH
          **************************************************
X1      1.000    22.000  9985.000 10015.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
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X4	5.000	2093.000	9200.000	2098.700	10370.000	2100.000	10700.000	2099.400	11000.000	2100.000	
X4	11250.000	2100.600	11650.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	2105.000	6700.000	2098.000	8050.000	2097.000	8460.000	2097.000	8850.000	2095.000	9190.000	
GR	2093.500	9240.000	2095.500	9760.000	2094.000	9880.000	2100.500	9960.000	2095.000	9985.000	
GR	2088.000	9992.000	2088.000	10008.000	2095.000	10015.000	2098.000	10500.000	2094.000	11100.000	
GR	2101.000	11800.000	2099.500	12240.000	2101.000	12850.000	2099.800	13580.000	2101.000	14070.000	
GR	2099.000	14450.000	2101.000	15300.000	0.000	0.000	0.000	0.000	0.000	0.000	
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV	
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLORL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*PROF 1

1490 NH CARD USED
*SECNO 1.000
1553 STARTING NC CARD OMITTED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9960.0 11800.0 TYPE= 1 TARGET= 1840.000

STA 8050 IS LOCATED ON MAP WITH TIC MARK
Q500,Q100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
EXPRESSWAY. 2.5' TALL MEDIAN BARRIER PREVENTS
BREAKOUT TO NORTH

1.80	11.44	2099.44	2099.44	0.00	2100.47	1.83	0.00	0.00	2095.00
6700.	103.	3349.	3248.	45.	294.	1811.	0.	0.	2095.00
0.00	2.29	11.38	1.79	0.045	0.022	0.061	0.000	2088.00	9964.81
0.001712	3.	0.	3.	0	10	0	0.00	936.42	11236.05

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2099.44

STA=	9965.	9985.	10015.	10370.	10500.	10644.	11100.	11236.
PER Q=	1.5	50.0	35.4	3.1	0.6	4.0	5.4	
AREA=	44.8	294.3	920.1	141.9	104.0	274.6	370.2	
VEL=	2.3	11.4	2.6	1.4	0.4	1.0	1.0	

*****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
*****

T1 Clark County, Nevada COE - 500 year flood to Sta 11,800
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 1

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.009250	0.00	0.0	0.	2100.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

-PROF 2

1490 NH CARD USED
*SECNO 1.000
1553 STARTING NC CARD OMITTED
3280 CROSS SECTION 1.00 EXTENDED 1.38 FEET

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9950.0 11800.0 TYPE= 1 TARGET= 1840.000

****
STA 8050 IS LOCATED ON MAP WITH TIC MARK
9500,9100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
EXPRESSWAY. 2.5' TALL MEDIAN BARRIER PREVENTS
BREAKOUT TO NORTH
****

1.00	14.38	2102.38	2102.38	2099.44	2103.93	1.55	0.00	0.00	2095.00
28450.	578.	7260.	20612.	116.	382.	6413.	0.	0.	2095.00
0.00	4.99	18.98	3.21	0.045	0.022	0.059	0.000	2088.00	9960.00
0.003357	0.	0.	0.	0	12	0	0.00	1840.00	11800.00

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2102.38

STA=	9960.	9985.	10015.	10370.	10500.	10700.	11000.	11100.	11250.	11650.	11800.
PER Q=	2.0	25.5	41.3	8.9	3.7	3.3	4.4	6.1	3.3	0.8	
AREA=	115.8	382.4	1963.4	524.0	676.2	804.3	568.1	807.1	832.3	237.1	
VEL=	5.0	19.0	6.0	4.8	1.6	1.4	2.2	2.1	1.1	0.9	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 100 year flood to Sta 12,850
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 1

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.009250	0.00	0.0	0.	2100.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO DEPTH CWSEL CRIWS WSELK EG HV HL OLOSS BANK ELEV
Q QLOB QCH QROB ALOB ACH AROB VOL TWA LEFT/RIGHT
TIME VLOB VCH VROB XNL XNCH XNR WTN ELMIN SSTA
SLOPE XLOBL XLCH XLOBR ITRIAL IDC ICONT CORAR TOPWID ENDST

*PROF 3

1490 NH CARD USED
*SECNO 1.000
1553 STARTING NC CARD OMITTED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9960.0 12850.0 TYPE= 1 TARGET= 2090.000

****
STA 8050 IS LOCATED ON MAP WITH TIC MARK
Q500 .0100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
EXPRESSWAY. 2.5' TALL MEDIAN BARRIER PREVENTS
BREAKOUT TO NORTH
****

1.00	11.46	2099.46	2099.46	2099.44	2100.47	1.01	0.00	0.00	2095.00
6700.	103.	3332.	3265.	45.	295.	1829.	0.	0.	2095.00
0.00	2.28	11.30	1.79	0.045	0.022	0.061	0.000	2088.00	9964.72
0.001682	0.	0.	0.	0	10	0	0.00	949.02	11236.55

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2099.46

STA=	9965.	9985.	10015.	10370.	10500.	10646.	11100.	11237.
PER Q=	1.5	49.7	35.5	3.1	0.6	4.0	5.4	
AREA=	45.2	294.9	927.2	144.5	106.9	277.2	372.9	
VEL=	2.3	11.3	2.6	1.5	0.4	1.0	1.0	

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood to Sta 12,850
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 1

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.009250	0.00	0.0	0.	2100.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO DEPTH CWSEL CRIWS WSELK EG HV HL OLOSS BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST	

*PROF 4

1490 NH CARD USED
*SECND 1.000
1553 STARTING NC CARD OMITTED
3280 CROSS SECTION 1.00 EXTENDED 1.26 FEET

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9960.0 12850.0 TYPE= 1 TARGET= 2890.000

****
STA 8050 IS LOCATED ON MAP WITH TIC MARK
9500,9100 LOB PLOTTED USING 1984 TOPO DETAILS ALONG
EXPRESSWAY. 2.5' TALL MEDIAN BARRIER PREVENTS
BREAKOUT TO NORTH
****

1.00	14.26	2102.26	2102.26	2099.44	2103.55	1.29	0.00	0.00	2095.00
28450.	530.	6828.	21092.	113.	379.	8320.	0.	0.	2095.00
0.00	4.70	18.02	2.54	0.045	0.022	0.074	0.000	2088.00	9960.00
0.003061	0.	0.	0.	0	12	0	0.00	2890.00	12850.00

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2102.26

STA=	9960.	9985.	10015.	10370.	10500.	10700.	11000.	11100.	11250.	11800.	12240.	12850.
PER Q=	1.9	24.0	38.1	8.1	3.4	3.4	4.1	5.6	3.6	3.3	4.6	
AREA=	112.9	378.9	1922.1	508.9	652.9	769.3	556.4	789.7	1005.4	886.3	1228.8	
VEL=	4.7	18.0	5.6	4.5	1.5	1.3	2.1	2.0	1.0	1.1	1.1	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 1
SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	1.000	0.00	0.00	0.00	2088.00	6700.00	2099.44	2099.44	2100.47	17.12	11.38	2149.89	1619.42
*	1.000	0.00	0.00	0.00	2088.00	28450.00	2102.38	2102.38	2103.93	33.57	18.98	6910.73	4910.48
*	1.000	0.00	0.00	0.00	2088.00	6700.00	2099.46	2099.46	2100.47	16.82	11.30	2168.76	1633.44
*	1.000	0.00	0.00	0.00	2088.00	28450.00	2102.26	2102.26	2103.55	30.61	18.02	8811.57	5141.92

Overflow X-Sec. 1
SUMMARY PRINTOUT TABLE 153

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.000	6700.00	2099.44	0.00	0.00	0.00	936.42	0.00
*	1.000	28450.00	2102.38	2.94	0.00	2.94	1840.00	0.00
*	1.000	6700.00	2099.46	-2.92	0.00	0.02	945.02	0.00
*	1.000	28450.00	2102.26	2.80	0.00	2.82	2890.00	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 1.39 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.045    0.045    0.045
JT       4      200      300      400      500
X1    1.39       13     1160     3283
X2                                                                                  15
X3                                                  3852   1731.0
GR1736.0      1160   1736.0     1160   1736.0     1160   1736.0     1160   1736.0     1160
GR1732.0      1580   1731.0     1650   1730.0     1720   1729.0     1800   1728.0     1870
GR1727.1      2000   1727.7     2687   1727.7     3283
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 1.39 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 1.39 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 1.39 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  26-DEC-87 TIME   18:04:54          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X            X     X
X      X  X         X                  X
XXXXXXXX  XXXX      X          XXXXX    XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
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 *************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 *************************************************

 T1        CORECD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 1.39 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        3.        0.  0.005000      0.00      0.0       0.     0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
      150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 NC        0.045     0.045     0.045     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 QT        4.000   200.000   300.000   400.000   500.000     0.000     0.000     0.000     0.000     0.000
 X1        1.390    13.000  1160.000  3283.000     0.000     0.000     0.000     0.000     0.000     0.000
 X2        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
 X3        0.000     0.000     0.000     0.000     0.000  3852.000  1731.000     0.000     0.000     0.000
 GR     1736.000  1160.000  1736.000  1160.000  1736.000  1160.000  1736.000  1160.000  1736.000  1160.000
 GR     1732.000  1580.000  1731.000  1650.000  1730.000  1720.000  1729.000  1830.000  1728.000  1870.000
 GR     1727.100  2000.000  1727.700  2687.000  1727.700  3283.000     0.000     0.000     0.000     0.000
 EJ        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 1.390
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 1.39 EXTENDED 0.02 FEET

3470 ENCROACHMENT STATIONS= 0.0 3852.0 TYPE= 1 TARGET= 3851.999

1.39	0.62	1727.72	0.00	0.00	1727.73	0.01	0.00	0.00	1736.00
200.	0.	200.	0.	0.	261.	0.	0.	0.	1727.70
0.00	0.00	0.77	0.00	0.045	0.045	0.045	0.000	1727.19	1910.25
0.004905	0.	0.	0.	0	0	8	0.00	1372.75	3283.00

FLOW DISTRIBUTION FOR SECNO= 1.39 CWSEL= 1727.72

STA=	1910.	3283.
PER Q=	100.0	
AREA=	261.3	
VEL=	2.9	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 1.39 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 1.390
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 1.39 EXTENDED 0.07 FEET

```
3470 ENCROACHMENT STATIONS=        0.0     3852.0  TYPE=      1  TARGET=     3851.999
     1.39      0.67  1727.77      0.00       0.00  1727.79     0.01      0.00      0.00  1736.00
      300.       0.      300.       0.         0.      333.       0.       0.        0.  1727.70
     0.00      0.00      0.90      0.00      0.045     0.045     0.045    0.000  1727.10  1902.78
 0.004977        0.        0.        0.          0         0         8     0.00  1380.22  3283.00

 FLOW DISTRIBUTION FOR SECNO=      1.39          CWSEL=   1727.77

 STA=    1903.    3283.
   PER Q=   100.0
    AREA=   332.6
     VEL=     0.9

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 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1        CORPCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 1.39 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.        4.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF  3

 *SECNO 1.390
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
 3280 CROSS SECTION      1.39 EXTENDED      0.12 FEET

 3470 ENCROACHMENT STATIONS=        0.0     3852.0  TYPE=      1  TARGET=     3851.999
     1.39      0.72  1727.82      0.00       0.00  1727.83     0.02      0.00      0.00  1736.00
      400.       0.      400.       0.         0.      396.       0.       0.        0.  1727.70
     0.00      0.00      1.01      0.00      0.045     0.045     0.045    0.000  1727.10  1896.18
 0.004988        0.        0.        0.          0         0         8     0.00  1386.82  3283.00

 FLOW DISTRIBUTION FOR SECNO=      1.39          CWSEL=   1727.82

 STA=    1896.    3283.
   PER Q=   100.0
    AREA=   395.7
     VEL=     1.0
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 1.39 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
     -10.       5.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.00)    0.000     -1.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*PROF 4

*SECNO 1.390
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION      1.39 EXTENDED      0.16 FEET

3470 ENCROACHMENT STATIONS=       0.0     3852.0  TYPE=     1  TARGET=     3851.999
     1.39      0.76   1727.86      0.00      0.00   1727.88      0.02      0.00      0.00   1736.00
      500.       0.      500.       0.        0.      453.        0.        0.        0.    1727.70
      0.00      0.00      1.10      0.00    0.045     0.045     0.045     0.000   1727.10   1890.24
 0.004999        0.        0.        0.        0         0         8      0.00   1392.76   3283.00
)
FLOW DISTRIBUTION FOR SECNO=      1.39          CWSEL=   1727.86

STA=    1890.     3283.
  PER Q=   100.0
  AREA=    452.9
   VEL=      1.1
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

NOTE= ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.390	0.00	0.00	0.00	1727.10	200.00	1727.72	0.00	1727.73	49.05	0.77	261.34	28.56
1.390	0.00	0.00	0.00	1727.10	300.00	1727.77	0.00	1727.79	49.77	0.90	332.58	42.52
1.390	0.00	0.00	0.00	1727.10	400.00	1727.82	0.00	1727.83	49.88	1.01	395.75	56.64
1.390	0.00	0.00	0.00	1727.10	500.00	1727.86	0.00	1727.88	49.99	1.10	452.91	70.72

1
26-DEC-87 18:04:54 PAGE 10

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.390	200.00	1727.72	0.00	0.00	0.00	1372.75	0.00
1.390	300.00	1727.77	0.05	0.00	0.00	1380.22	0.00
1.390	400.00	1727.82	0.05	0.00	0.00	1386.82	0.00
1.390	500.00	1727.86	0.04	0.00	0.00	1392.76	0.00

1
26-DEC-87 18:04:54 PAGE 11

SUMMARY OF ERRORS AND SPECIAL NOTES

1
26-DEC-87 18:05:00 PAGE 1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

20

LVW

```
CC          4
CC        2.0 ************************************************
CC        2.0 STA 10015 IS LOCATED ON MAP WITH TIC MARK
CC        2.0 THIS FILE LOCATES THE 100-YEAR FLOOD BOUNDARY
CC        2.0 ************************************************
T1              Clark County, Nevada COE - 100 year flood
T2              James M. Montgomery Consulting Engineers, Inc.
T3               Overflow X-Sec. 2A
J1                  2                .00820                                  2060
J2          1                -1
J3        150
NC    0.045     0.100    0.100
QT          2    7375    31975
ET              7.1      7.1      7.1                      10070    12050
K1        2.0      10    10070    11450
K2                                                                          15.0
K4         12    2060    10530   2059.5    11820     2060   12920     2060   12140     2060
K4      12380    2060    12830   2060.2    12970     2060   13030   2059.1   13260     2060
K4      13680  2062.5    14630   2061.4    14950
GR       2060   10015     2063    10070     2060    10160    2058    10950    2058    11450
GR    2060.5   12050   2058.3    12520   2059.5    13440    2061    14200    2062    15250
EJ
T1              Clark County, Nevada COE - 500 year flood
T2              James M. Montgomery Consulting Engineers, Inc.
T3               Overflow X-Sec. 2A
J1                  3                0.00820                                 2060
J2         15                -1

ER
EOF..
```

21

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:41:40          *
 *************************************************
```

```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```

CVW

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X     X
XXXXXXX  XXXX      X           XXXXX  XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX   XXXXX             XXXXXXX
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

```
C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 2A
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.008200	0.00	0.0	0.	2060.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.045	0.100	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	2.000	7375.000	31975.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	10070.000	12050.000	0.000	0.000

```
**************************************************
STA 10015 IS LOCATED ON MAP WITH TIC MARK
THIS FILE LOCATES THE 100-YEAR FLOOD BOUNDARY
**************************************************
```

X1	2.000	10.000	10070.000	11450.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X4	12.000	2060.000	10530.000	2059.500	11820.000	2060.000	12020.000	2060.000	12140.000	2060.000
X4	12380.000	2060.000	12880.000	2060.200	12970.000	2060.000	13030.000	2059.100	13260.000	2060.000
X4	13680.000	2062.500	14630.000	2061.400	14950.000	0.000	0.000	0.000	0.000	0.000

GR	2061.000	10015.000	2063.000	10070.000	2060.000	10150.000	2055.000	10950.000	2058.000	11450.000
GR	2060.500	12050.000	2058.300	12520.000	2059.500	13440.000	2061.000	14200.000	2062.000	15250.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

•PROF 1

*SECNO 2.000

3470 ENCROACHMENT STATIONS= 10070.0 12050.0 TYPE= 1 TARGET= 1980.000

****
STA 10015 IS LOCATED ON MAP WITH TIC MARK
THIS FILE LOCATES THE 100-YEAR FLOOD BOUNDARY
****

2.00	2.86	2060.86	0.00	0.00	2060.93	0.07	0.00	0.00	2063.00
7375.	0.	5306.	2069.	0.	2544.	1023.	0.	0.	2058.00
0.00	0.00	2.09	2.02	0.045	0.100	0.100	0.000	2058.00	10134.11
0.008175	0.	0.	0.	0	0	5	0.00	1915.89	12050.00

FLOW DISTRIBUTION FOR SECNO= 2.00 CWSEL= 2060.86

STA=	10134.	11450.	11820.	12020.	12050.
PER Q=	71.9	23.5	4.4	0.2	
AREA=	2544.5	781.8	222.6	18.4	
VEL=	2.1	2.2	1.4	1.0	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 2A

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.008200	0.00	0.0	0.	2060.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 2

*SECNO 2.000
3280 CROSS SECTION       2.00 EXTENDED       1.52 FEET

3470 ENCROACHMENT STATIONS=   10070.0   12050.0  TYPE=     1  TARGET=    1980.000
           **************************************************
           STA 10015 IS LOCATED ON MAP WITH TIC MARK
           THIS FILE LOCATES THE 100-YEAR FLOOD BOUNDARY
           **************************************************
     2.00       5.52  2063.52      0.00  2060.86  2063.73      0.21      0.00      0.00  2063.00
    31975.        0.    22469.      9506.       0.    6140.    2620.        0.        0.  2058.00
     0.00       0.00      3.65      3.63     0.045    0.100    0.100     0.000  2058.00 10070.00
 0.008252         0.        0.        0.         0        0        5      0.00  1980.00 12050.00

FLOW DISTRIBUTION FOR SECNO=      2.00          CWSEL=   2063.52

STA=   10070.    11450.    11820.    12020.    12050.
  PER Q=    70.3      21.1       7.7       0.9
   AREA=  6148.7   1766.5     754.9      98.2
    VEL=     3.7       3.9       3.3       2.8

1
 18-FEB-88    15:41:41                                                          PAGE     5


 ********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ********************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

      Overflow X-Sec. 2A
 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL     CRIWS      EG       10K*S     VCH      AREA      .01K
      2.000      0.00      0.00      0.00    2058.00   7375.00    2060.86      0.00    2060.93    81.75     2.09    3567.31    815.67
      2.000      0.00      0.00      0.00    2058.00  31975.00    2063.52      0.00    2063.73    82.52     3.65    8768.34   3519.94

1
 18-FEB-88    15:41:41                                                          PAGE     6

      Overflow X-Sec. 2A
 SUMMARY PRINTOUT TABLE  150

      SECNO       Q         CWSEL     DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH
      2.000    7375.00    2060.86      0.00      0.00      0.00    1915.89     0.00
      2.000   31975.00    2063.52      2.66      0.00      2.66    1980.00     0.00

1
 18-FEB-88    15:41:41                                                          PAGE     7
```

SUMMARY OF ERRORS AND SPECIAL NOTES

1


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
C                4
C          2.0   ********************************************************
C          2.0   STA 10015 IS LOCATED ON MAP WITH TIC MARK
C          2.0   THIS FILE LOCATES THE 500-YEAR BOUNDARY
C          2.0   ********************************************************
T1                 Clark County, Nevada COE - 100 year flood
T2                 James M. Montgomery Consulting Engineers, Inc.
T3                  Overflow X-Sec. 2B
J1                    2                    .00820                                  2060
J2           1                -1
J3         150
NC      0.045     0.100     0.123
QT           2      7375     31975
ET                    7.1       7.1       7.1       7.1             10070     15250
X1         2.0        10     10070     13440
X2                                                                                    15.0
X4          12      2060     10530    2055.5     11820      2060     12020      2060     12140      2060
X4       12380      2060     12880    2060.2     12970      2060     13030    2059.1     13260      2060
X4       13680    2062.5     14630    2061.4     14950
GR        2060     10015      2063     10070      2060     10160      2058     10950      2058     11450
GR      2060.5     12050    2058.3     12520    2059.5     13440      2061     14200      2062     15250
EJ
T1                 Clark County, Nevada COE - 500 year flood
T2                 James M. Montgomery Consulting Engineers, Inc.
T3                  Overflow X-Sec. 2B
J1                    3                    0.00820                                 2060
J2          15                -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:43:09          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                           X
XXXXXXX  XXXX     X           XXXXX    XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX

1
  18-FEB-88     15:43:10                                                    PAGE     1

 *************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 *************************************************

C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 2B

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.008200      0.00      0.0       0.  2060.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.045     0.100     0.123     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      2.000  7375.000 31975.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     7.100     7.100     7.100     7.100     0.000 10070.000 15250.000     0.000     0.000
          *************************************************
          STA 10015 IS LOCATED ON MAP WITH TIC MARK
          THIS FILE LOCATES THE 500-YEAR BOUNDARY
          *************************************************
X1      2.000    10.000 10070.000 13440.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
X4     12.000  2060.000 10530.000  2059.500 11820.000  2060.000 12020.000  2060.000 12140.000  2060.000
X4  12380.000  2060.000 12980.000  2060.200 12970.000  2060.000 13030.000  2059.100 13260.000  2060.000
X4  13680.000  2062.500 14630.000  2061.400 14950.000     0.000     0.000     0.000     0.000     0.000
```

GR	2060.000	10015.000	2063.000	10070.000	2060.000	10160.000	2058.000	10950.000	2058.000	11450.000
GR	2060.500	12050.000	2058.300	12520.000	2059.500	13440.000	2061.000	14200.000	2062.000	15250.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

•SECNO 2.000

3470 ENCROACHMENT STATIONS= 10070.0 15250.0 TYPE= 1 TARGET= 5180.000

****
STA 10015 IS LOCATED ON MAP WITH TIC MARK
THIS FILE LOCATES THE 500-YEAR BOUNDARY
****

2.00	2.72	2060.72	0.00	0.00	2060.75	0.00	0.00	0.00	2063.00
7375.	0.	6976.	399.	0.	4924.	370.	0.	0.	2059.50
0.00	0.00	1.42	1.08	0.045	0.123	0.100	0.000	2058.00	10138.28
0.008071	0.	0.	0.	0	0	5	0.00	3918.13	14056.42

FLOW DISTRIBUTION FOR SECNO= 2.00 CWSEL= 2060.72

STA=	10138.	13440.	13680.	14056.
PER Q=	94.6	4.2	1.3	
AREA=	4924.1	233.7	136.2	
VEL=	1.4	1.3	0.7	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 2B

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.008200	0.00	0.0	0.	2060.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
 *PROF 2

 *SECNO 2.000
 3280 CROSS SECTION       2.00 EXTENDED       0.57 FEET

 3470 ENCROACHMENT STATIONS=   10071.0   15250.0  TYPE=     1  TARGET=     5180.000
             **************************************************
             STA 10015 IS LOCATED ON MAP WITH TIC MARK
             THIS FILE LOCATES THE 500-YEAR BOUNDARY
             **************************************************
      2.00       4.57  2062.57      0.00  2060.72  2062.66      0.09      0.00      0.00  2063.00
     31975.        0.    26868.     5107.       0.   11072.     2565.        0.        0.  2059.50
      0.00       0.00      2.43      1.99     0.045     0.123     0.100     0.000  2058.00 10082.89
  0.008219         0.        0.        3.         0         0         5      0.00  5167.11 15250.00
1
 FLOW DISTRIBUTION FOR SECNO=      2.00          CWSEL=   2062.57

 STA=   10083.   13440.   13680.   14200.   14630.   14950.   15250.
   PER Q=    84.0      5.7      7.4      1.3      0.6      1.0
    AREA=  11071.6    676.9   1076.6    352.7    198.5    261.1
     VEL=      2.4      2.7      2.2      1.2      1.0      1.2

1
  18-FEB-88    15:43:10                                                          PAGE     5


  ********************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ********************************************

  NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

       Overflow X-Sec. 2B
  SUMMARY PRINTOUT TABLE  150

        SECNO      XLCH      ELTRD      ELLC      ELMIN        Q         CWSEL      CRIWS      EG        10K*S      VCH       AREA       .01K
        2.000      0.00       0.00      3.00    2058.00    7375.00    2060.72      0.00    2060.75     80.71      1.42     5293.99    820.94
        2.000      0.00       0.00      0.00    2058.00   31975.00    2062.57      0.00    2062.66     82.19      2.43    13637.41   3527.05
1
  18-FEB-88    15:43:10                                                          PAGE     6

       Overflow X-Sec. 2B
  SUMMARY PRINTOUT TABLE  150

        SECNO        Q         CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
        2.000     7375.00    2060.72       3.00       0.00       0.00    3916.13       0.00
        2.000    31975.00    2062.57       1.85       0.00       1.85    5167.11       0.00
1
  18-FEB-88    15:43:10                                                          PAGE     7
```

SUMMARY OF ERRORS AND SPECIAL NOTES

1
18-FEB-88 15:43:19 PAGE 1

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
KK          3
     4.0    ****************************************************
     4.0    STA 2000 IS LOCATED ON MAP WITH TIC MARK
     4.0    ****************************************************
T1           Clark County, Nevada COE -100 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 4
J1              2                    .00595                              2039
J2     1                -1
J3   150
NH       2    0.06      3650        5     5260
ET         5.1       6.1                        2000      4040
QT       2  2500      7300
X1   4.0          7    2000      3650
X2                                                                              15.0
GR  2039     2000      2038      2400      2037      2800      2038      3650      2039      4180
GR  2040     5200      2050      5260
EJ
T1           Clark County, Nevada COE - 500 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 4
J1              3                    0.00595                             2039
J2     15               -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:44:07          *
 *************************************************
```


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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1          Clark County, Nevada COE -100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 4

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      0.         2.         3.         0.   0.005950       0.00       0.0        0.   2039.000       0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
    1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NH      2.000      0.060   3650.000      5.000   5260.000      0.000      0.000      0.000      0.000      0.000
ET      0.000      6.100      6.100      0.000      0.000   2000.000   4040.000      0.000      0.000      0.000
QT      2.000   2500.000   7300.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
        ***************************************************
        STA 2000 IS LOCATED ON MAP WITH TIC MARK
        ***************************************************
X1      4.000      7.000   2000.000   3650.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   2039.000   2000.000   2038.000   2400.000   2037.000   2800.000   2038.000   3650.000   2039.000   4180.000
GR   2040.000   5200.000   2050.000   5260.000      0.000      0.000      0.000      0.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

1490 NH CARD USED
*SECNO 4.000
1553 STARTING NC CARD OMITTED

3470 ENCROACHMENT STATIONS= 2000.0 4040.0 TYPE= 1 TARGET= 2040.000

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

4.00	1.55	2038.55	0.00	0.00	2038.60	0.05	0.00	0.00	2039.00
2500.	0.	2499.	1.	0.	1369.	79.	0.	0.	2038.00
0.00	0.00	1.83	0.01	0.000	0.060	5.000	0.000	2037.00	2181.10
0.005968	0.	0.	0.	0	0	5	0.00	1758.94	3940.04

FLOW DISTRIBUTION FOR SECNO= 4.00 CWSEL= 2038.55

STA=	2181.	3650.	3940.
PER Q=	100.0	0.0	
AREA=	1368.9	79.3	
VEL=	1.8	0.0	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 4

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	G	WSEL	FQ
	0.	3.	0.	0.	0.005950	0.00	0.0	0.	2039.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

1490 NH CARD USED

1490 NH CARD USED
*SECNO 4.000
1553 STARTING NC CARD OMITTED

3470 ENCROACHMENT STATIONS= 2000.0 4040.0 TYPE= 1 TARGET= 2040.000

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

4.00	2.40	2039.40	0.00	2038.55	2039.51	0.1	1	0.00	0.00	2039.00
7300.	0.	7291.	9.	0.	2730.	401.		0.	0.	2038.00
0.00	0.00	2.67	0.02	0.000	0.060	5.000	0	0.000	2037.00	2000.00
0.005944	0.	0.	0.		0	5		0.00	2040.00	4040.00

FLOW DISTRIBUTION FOR SECNO= 4.00 CWSEL= 2039.40

STA=	2000.	3650.	4040.
PER Q=	99.9	0.1	
AREA=	2730.4	401.4	
VEL=	2.7	0.8	

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 4
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.000	0.00	0.00	0.00	2037.00	2500.00	2038.55	0.00	2039.60	59.69	1.83	1448.28	323.58
4.000	0.00	0.00	0.00	2037.00	7300.00	2039.40	0.00	2039.51	59.44	2.67	3131.83	946.85

1
18-FEB-88 15:44:08 PAGE 6

Overflow X-Sec. 4
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.000	2500.00	2038.55	0.00	0.00	0.00	1758.94	0.00
4.000	7300.00	2039.40	0.85	0.00	0.85	2040.00	0.00

1
18-FEB-88 15:44:08 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1          Clark County, Nevaca COE - 25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 5A
J1              2                    .00530                                  2060
J2      1             -1
J3    150
NC  0.06    0.06    0.022
ST      4  1400     2000     6900    18000
ET         7.1      7.1      7.1        7.1          2000     2175
X1    5.0     12     2068     2106
X2                                                                          15.0
GR  2060    2000     2050     2020     2040     2068     2032     2078  2031.5    2080
GR  2032    2089     2040     2106     2042     2130  2042.9     2175    2042    2600
GR  2040    2900  2041.9     3150
EJ
T1          Clark County, Nevaca COE - 50  year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 5
J1              3                  0.00530                                   2060
J2      2             -1
T1          Clark County, Nevaca COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 5
J1              4                  0.00530                                   2060
J2      3             -1
T1          Clark County, Nevaca COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 2
J1              5                  0.00530                                   2060
J2     15             -1

ER
EOF..
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```
T1          Clark County, Nevada COE - 25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 6A
J1             2                .00790                                  2025
J2      1             -1
J3    150
NC  0.045   0.045   0.045
ST      4    1200     2200     6500    18000
ET           7.1      7.1      7.1      7.1          2000    3230
X1    6.0     13     2110    2270.
X2                                                                      15.0
GR    2061   2000     2025     2110     2021     2270     2025    2660  2025.5  3230
GR2024.5     4040  2025.5     4700     2025     5400     2025    5850  2023.3  6400
GR2022.5     6880     2024     7380     2026     7900
EJ
T1          Clark County, Nevada COE - 50  year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 6A
J1             3                0.00790                                 2025
J2      2             -1
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 6A
J1             4                0.00790                                 2025
J2      3             -1
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 6A
J1             5                0.00790                                 2025
J2     15             -1

ER
EOF..
```

```
SCHEMATIC
      3
    7.0  ************************************************
    7.0  STA 1100 IS LOCATED ON MAP WITH TIC MARK
    7.0  ************************************************
T1          Clark County, Nevada COE - 100 & 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 7
J1             2                  .006                              2020
J2     1            -1
J3   150
NC 0.120   0.120   0.120
BT     2   1500   12000
ET       6.1      8.1                      1500     3760     1500     5200
X1     7     7     2750     2970
X4     3  2030     2000     2032     4220     2033     4710
GR2032.3  1100  2030.7     2420     2031     2750     2031     2970     2032     3270
GR  2032  3760     2033     5200
EJ
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charlston  Overflow X-Sec. 7
J1             3                  0.006                             2020
J2    15            -1


ER

EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:44:29          *
 *************************************************
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```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



```
*************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
 ERROR CORR -  01,02,03,04,05
 MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1          Clark County, Nevada COE - 100 & 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 7

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.       2.        0.        0.  0.006000      0.00      0.0       0.  2020.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.120     0.120     0.120     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      2.000  1500.000 12000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     6.100     8.100     0.000     0.000  1500.000  3760.000  1500.000  5200.000     0.000
          *************************************************
          STA 1100 IS LOCATED ON MAP WITH TIC MARK
          *************************************************
X1      7.000     7.000  2750.000  2970.000     0.000     0.000     0.000     0.000     0.000     0.000
X4      3.000  2030.000  2000.000  2032.000  4220.000  2033.000  4710.000     0.000     0.000     0.000
GR 2032.300  1100.000  2030.700  2420.000  2031.000  2750.000  2031.000  2970.000  2032.000  3270.000
GR 2032.300  3760.000  2033.000  5200.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 7.000

3470 ENCROACHMENT STATIONS= 1500.0 3760.0 TYPE= 1 TARGET= 2260.000

****
STA 1100 IS LOCATED ON MAP WITH TIC MARK
****

7.00	1.66	2031.66	0.00	0.00	2031.68	0.02	0.00	0.00	2031.00
1500.	1363.	107.	31.	1334.	146.	66.	0.	0.	2031.00
0.00	1.02	0.73	0.45	0.120	0.120	0.120	0.000	2030.00	1500.00
0.006018	0.	0.	0.	0	0	6	0.00	1669.37	3169.37

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Charlston Overflow X-Sec. 7

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.006000	0.00	0.0	0.	2020.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 7.000
3280 CROSS SECTION 7.00 EXTENDED 0.56 FEET

3470 ENCROACHMENT STATIONS= 1500.0 5200.0 TYPE= 1 TARGET= 3700.000

****
STA 1100 IS LOCATED ON MAP WITH TIC MARK
****

7.00	3.56	2033.56	0.00	2031.66	2033.61	0.05	0.00	0.00	2031.00

12000.	7586.	1515.	3596.	3705.	563.	2857.	N.	N.	2031.00
0.00	1.99	1.81	1.24	0.120	0.120	0.120	0.000	2030.00	1500.00
0.006074	0.	0.	0.	0	0	5	0.00	3700.00	5200.00

1

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Charleston Overflow

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7.000	0.00	0.00	0.00	2030.00	1500.00	2031.66	0.00	2031.68	60.18	0.73	1546.19	193.35
7.000	0.00	0.00	0.00	2030.00	12000.00	2033.56	0.00	2033.61	60.74	1.81	7164.79	1539.75

1

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Charleston Overflow

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.000	1500.00	2031.66	0.00	0.00	0.00	1669.37	0.00
7.000	12000.00	2033.56	1.90	0.00	1.90	3700.00	0.00

1

18-FEB-88 15:44:30 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

1

18-FEB-88 15:44:38 PAGE 1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

```
     3
   8.0  ************************************************
   8.0  STA 1670 IS LOCATED ON MAP WITH TIC MARK
   8.0  ************************************************
T1       Clark County, Nevaca COE -  25 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3       Overflow X-Sec. 9
J1          2                0.0098                                  2000
J2     1         -1
J3   150
NC 0.123 0.123   0.123
QT     4   700    1000    3200    9500
ET         6.1     6.1     6.1            1670    3700
X1     8    10    2290    3460                                                 15.0
X2
X3    10
GR  2007  1670    2009    2290    2007    2670  2007.5    2900  2007.3    3460
GR  2008  3660    2009    3700  2008.5    3820    2008    4170    2010    4680
EJ
T1       Clark County, Nevaca COE -  50 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3       Overflow X-Sec. 9
J1          3                0.0098                                  2000
J2     2         -1
T1       Clark County, Nevada COE - 100 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3       Overflow X-Sec. 9
J1          4                0.0098                                  2000
J2     3         -1
T1       Clark County, Nevaca COE - 500 year flood
T2       James M. Montgomery Consulting Engineers, Inc.
T3       Overflow X-Sec. 9
J1          5                0.0098                                  2000
J2    15         -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:44:53          *
 *************************************************
```


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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X           XXXXX    XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
```



```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 8

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.         2.         0.         0.   0.009800       0.00       0.0        0.   2000.000       0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT      4.000    700.000   1000.000   3200.000   9500.000      0.000      0.000      0.000      0.000      0.000
ET      0.000      6.100      6.100      6.100      0.000   1670.000   3700.000      0.000      0.000      0.000
          *****************************************************
          STA 1679 IS LOCATED ON MAP WITH TIC MARK
          *****************************************************
X1      8.000     10.000   2250.000   3460.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR   2007.000   1670.000   2009.000   2290.000   2007.000   2670.000   2007.500   2900.000   2007.300   3460.000
GR   2008.000   3660.000   2009.000   3700.000   2008.500   3820.000   2008.000   4170.000   2010.000   4680.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

-SECNO 8.000

3470 ENCROACHMENT STATIONS= 1670.0 3700.0 TYPE= 1 TARGET= 2030.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2009.00 ELREA= 2007.30

****
STA 1670 IS LOCATED ON MAP WITH TIC MARK
****

8.00	1.08	2008.08	0.03	0.00	2008.10	0.01	0.00	0.00	2009.00
700.	0.	640.	60.	0.	687.	87.	0.	0.	2007.30
0.00	0.00	0.93	0.58	0.123	0.123	0.123	0.000	2007.00	2463.86
0.009750	0.	0.	0.	0	0	5	0.00	1199.54	3663.40

FLOW DISTRIBUTION FOR SECNO= 8.00 CWSEL= 2008.08

STA=	2464.	3460.	3660.	3663.
PER Q=	91.5	8.5	0.0	
AREA=	687.4	87.0	0.1	
VEL=	0.9	0.7	0.1	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 8

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.009800	0.00	0.0	0.	2000.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
 *PROF 2

 *SECNO 8.000

 3470 ENCROACHMENT STATIONS=     1670.0     3700.0  TYPE=      1  TARGET=     2030.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      2009.00 ELREA=      2007.30

            **************************************************
            STA 1670 IS LOCATED ON MAP WITH TIC MARK
            **************************************************
      8.00       1.25  2008.25       0.00  2008.08  2008.26       0.02       0.00       0.00  2009.00
   1000.          0.      858.        102.       0.      851.        121.          0.          0.  2007.30
      0.00       0.00       1.06       0.84     0.123     0.123     0.123     0.000  2007.00  2433.13
 0.009809          0.         0.         0.         0         0         6      0.00  1236.74  3669.87

 FLOW DISTRIBUTION FOR SECNO=       8.00          CWSEL=   2008.25

 STA=     2433.     3460.     3660.     3670.
   PER Q=     89.8      10.1       0.0
    AREA=    851.0     119.3       1.2
     VEL=      1.1       0.8       0.3

1
  18-FEB-88     15:44:54                                                                  PAGE     5


  ***********************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ***********************************************

 T1          Clark County, Nevada COE - 100 year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Overflow X-Sec. 8

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ

        0.        4.        0.        0.  0.009800      0.00      0.0         0.  2000.000      0.000

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  18-FEB-88     15:44:54                                                                  PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
       Q      QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *PROF 3

 *SECNO 8.000
 7230 SLOPE-AREA TRIALS EXCEED 100

 3470 ENCROACHMENT STATIONS=     1670.0     3700.0  TYPE=      1  TARGET=     2030.000

            **************************************************
            STA 1670 IS LOCATED ON MAP WITH TIC MARK
            **************************************************
      8.00       2.00  2009.00       0.00  2008.08  2009.02       0.02       0.00       0.00  2009.00
```

```
      3200.      640.     2207.      354.      620.     1679.      290.        0.        0.     2007.30
       0.00      1.03      1.31      1.22     0.123     0.123     0.123     0.000  2007.00  1670.00
  0.007397         0.        0.        0.         0         0       101      0.00  2030.00  3700.00

 FLOW DISTRIBUTION FOR SECNO=      8.00          CWSEL=   2009.00

 STA=    1670.     2290.     3460.     3660.     3700.
   PER Q=    20.0      69.0      10.7       0.4
    AREA=   620.4    1679.2     270.1      20.0
     VEL=     1.0       1.3       1.3       0.7

1
  18-FEB-88    15:44:54                                                                    PAGE     7


 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************

 T1          Clark County, Nevada CDE - 500 year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Overflow X-Sec. 8

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
        0.        5.        0.        0.  0.009800      0.00      0.0       0.  2000.000      0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
      15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  18-FEB-88    15:44:54                                                                    PAGE     8

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         OLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 4

 *SECNO 8.000
 3280 CROSS SECTION       8.00 EXTENDED       2.77 FEET

          ***************************************************
          STA 1670 IS LOCATED ON MAP WITH TIC MARK
          ***************************************************
       8.00      2.77   2009.77      0.00   2000.00   2009.82      0.05      0.00      0.00   2009.00
    9500.      1919.     5240.     2341.     1095.     2575.     1525.        0.        0.     2007.30
       0.00      1.75      2.03      1.54     0.123     0.123     0.123     0.000  2007.00  1670.00
  0.009904         0.        0.        0.         0         0         4      0.00  2950.48  4620.48

 FLOW DISTRIBUTION FOR SECNO=      8.00          CWSEL=   2009.77

 STA=    1670.     2290.     3460.     3660.     3700.     3820.     4170.     4620.
   PER Q=    20.2      55.2       8.8       0.8       1.6       8.9       4.6
    AREA=  1095.3    2575.4     423.3      50.7     122.0     530.8     397.9
     VEL=     1.8       2.0       2.8       1.4       1.2       1.6       1.1

1
  18-FEB-88    15:44:54                                                                    PAGE     9
```

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

     Overflow X-Sec. 8
SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD      ELLC       ELMIN       Q         CWSEL      CRIWS      EG         10K*S      VCH       AREA       .01K
      8.000      0.00      0.00       0.00      2007.00     700.00    2008.08     0.00      2008.10     97.50      0.93      774.57     70.89
      8.000      0.00      0.00       0.00      2007.00    1000.00    2008.25     0.00      2008.26     98.09      1.06      971.58    100.97
      8.000      0.00      0.00       0.00      2007.00    3200.00    2009.00     0.00      2009.02     73.07      1.31     2589.72    374.34
      8.000      0.00      0.00       0.00      2007.00    9500.00    2009.77     0.00      2009.82     99.04      2.03     5195.40    954.60

1
  18-FEB-88    15:44:54                                                                                                  PAGE   10

     Overflow X-Sec. 8
SUMMARY PRINTOUT TABLE  150

      SECNO       Q         CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
      8.000      700.00    2008.08      0.00       0.00       0.00     1199.54     0.00
      8.000     1000.00    2008.25      0.16       0.00       0.16     1236.74     0.00
      8.000     3200.00    2009.00      0.75       0.00       0.72     2030.00     0.00
      8.000     9500.00    2009.77      0.77       0.00       0.77     2950.46     0.00

1
  18-FEB-88    15:44:54                                                                                                  PAGE   11


  SUMMARY OF ERRORS AND SPECIAL NOTES

1
  18-FEB-88    15:45:04                                                                                                  PAGE    1


**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

```
      3
    9.0
    9.0  ************************************************
    9.0  STA 730 IS LOCATED ON MAP WITH TIC MARK
    9.0  ************************************************
T1        Clark County, Nevada COE -  25 year flood
T2        James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 9
J1           2                    0.0138                              2000
J2     1              -1
J3   150
NC 0.120  0.120   0.120
ET     4    500     1200     3300    12500
K1     9      9     2520     3070
K4     7   2005     2150   2001.6     2360   2001.8     2700   2002.2     2780   2003.1
K4  2910   2005     3180     2005     3360
GR  2010    730     2008      830   2006.7     1275     2005     1430     2006     1830
GR  2006   2000   2001.0     2520     2003     3070     2006     3650
EJ
T1        Clark County, Nevada COE -  50 year flood
T2        James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 9
J1           3                    0.0138                              2000
J2     2              -1
T1        Clark County, Nevada COE - 100 year flood
T2        James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 9
J1           4                    0.0138                              2000
J2     3              -1
T1        Clark County, Nevada COE - 500 year flood
T2        James M. Montgomery Consulting Engineers, Inc.
T3        Overflow X-Sec. 9
J1           5                    0.0138                              2000
J2    15              -1

ER

EOF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:45:18          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X     X
XXXXXXX  XXXX      X           XXXXX  XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX    XXXXX            XXXXXXX
```

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1
 18-FEB-88    15:45:19                                                    PAGE    1
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 ***********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***********************************************
```

```
C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 9

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.        2.         0.         0.  0.013800       0.00       0.0        0.  2000.000       0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
    1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.120      0.120      0.120      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT      4.000    500.000   1200.000   3300.000  12500.000      0.000      0.000      0.000      0.000      0.000
          ***************************************************
          STA 730 IS LOCATED ON MAP WITH TIC MARK
          ***************************************************
X1      9.000      9.000   2520.000   3070.000      0.000      0.000      0.000      0.000      0.000      0.000
X4      7.000   2005.000   2150.000   2001.600   2360.000   2001.800   2700.000   2002.200   2780.000   2003.100
X4   2910.000   2005.000   3180.000   2005.000   3360.000      0.000      0.000      0.000      0.000      0.000
GR   2010.000    730.000   2008.000    830.000   2006.700   1275.000   2005.000   1430.000   2006.000   1830.000
GR   2006.000   2000.000   2001.000   2520.000   2003.000   3070.000   2006.000   3650.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 9.000

STA 730 IS LOCATED ON MAP WITH TIC MARK

9.00	1.35	2002.35	0.00	2000.00	2002.38	0.03	0.00	0.00	2001.00
500.	266.	234.	0.	196.	201.	0.	0.	0.	2003.00
0.00	1.44	1.16	0.00	0.120	0.120	0.120	0.000	2001.00	2313.60
0.013831	0.	0.	0.	0	0	6	0.00	488.24	2801.85

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 9

	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
J1	0.	3.	0.	0.	0.013800	0.00	0.0	0.	2000.000	0.000

	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
J2	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 9.000

STA 730 IS LOCATED ON MAP WITH TIC MARK

9.00	1.95	2002.95	0.00	2000.00	2002.99	0.05	0.00	0.00	2001.00
1200.	598.	602.	0.	320.	395.	0.	0.	0.	2003.00
0.00	1.87	1.53	0.00	0.120	0.120	0.120	0.000	2001.00	2276.79
0.013826	0.	0.	0.	0	0	6	0.00	611.16	2887.54

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 9

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q          WSEL      FQ

       0.        4.        0.        0.   0.013800       0.00      0.0        0.   2000.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC     IBW       CHNIM     ITRACE

     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROP      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*PROF 3

*SECNO 9.000
          ************************************************
          STA 730 IS LOCATED ON MAP WITH TIC MARK
          ************************************************
     9.00      2.92   2003.92      0.00   2000.00   2003.99      0.08      0.00      0.00   2001.00
     3300.     1425.     1955.      20.      585.      910.      23.        0.        0.   2003.00
     0.00      2.44      2.04      0.87     0.120     0.120     0.120     0.000   2001.00   2216.94
 0.013829       0.        0.        0.         0         0         4      0.00    903.64   3120.48
1
 18-FEB-88    15:45:19                                                                    PAGE     7


**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 9

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q          WSEL      FQ

       0.        5.        0.        0.   0.013800       0.00      0.0        0.   2000.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC     IBW       CHNIM     ITRACE

    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

*SECNO 9.000

3265 DIVIDED FLOW

****
STA 730 IS LOCATED ON MAP WITH TIC MARK
****

9.00	4.92	2005.92	0.00	2000.00	2006.08	0.16	0.00	0.00	2001.00
12500.	4741.	6960.	809.	1560.	2011.	459.	0.	0.	2003.00
0.00	3.04	3.46	1.52	0.120	0.120	0.120	0.000	2001.00	1346.14
0.013818	0.	0.	0.	0	0	8	0.00	2066.38	3626.71

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 9

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
9.000	0.00	0.00	0.00	2001.00	500.00	2002.35	0.00	2002.38	138.31	1.16	386.57	42.52
9.000	0.00	0.00	0.00	2001.00	1200.00	2002.95	0.00	2002.99	138.26	1.53	714.22	102.06
9.000	0.00	0.00	0.00	2001.00	3300.00	2003.92	0.00	2003.99	138.29	2.04	1518.23	280.62
9.000	0.00	0.00	0.00	2001.00	12500.00	2005.92	0.00	2006.08	138.18	3.46	4071.08	1063.38

Overflow X-Sec. 9

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.000	500.00	2002.35	0.00	0.00	2.35	488.24	0.00
9.000	1200.00	2002.95	0.60	0.00	2.95	611.16	0.00
9.000	3300.00	2003.92	0.97	0.00	3.92	903.64	0.00
9.000	12500.00	2005.92	2.00	0.00	5.52	2066.38	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1           Clark County, Nevada COE -  25 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 10
J1               2                    0.0568                                  1950
J2      1                -1
J3    150
NC 0.120    0.120    0.120
QT      4      500     1200     3300    13500
X1     10       10     2790     2980
X2                                                                          15.0
X4      6     1950     2330   1948.9     2500     1945     2880     1940     3000  1941.3
X4   3230     1940     3470
GR   1950     2000     1949     2370     1945     2590     1944     2790     1945     2980
GR   1940     3100   1942.5     3350     1940     3510     1945     3520     1950     3700
EJ
T1           Clark County, Nevada COE -  50 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 10
J1               3                    0.0568                                  1950
J2      2                -1
T1           Clark County, Nevada COE - 100 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 10
J1               4                    0.0568                                  1950
J2      3                -1
T1           Clark County, Nevada COE - 500 year flood
T2           James M. Montgomery Consulting Engineers, Inc.
T3           Overflow X-Sec. 10
J1               5                    0.0568                                  1950
J2     15                -1

ER
EOF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:45:45          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X        X     X            X     X
X      X  X        X                  X
XXXXXXXX  XXXX     X          XXXXX    XXXXX
X      X  X        X                  X
X      X  X        X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
```



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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 10

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.056800      0.00      0.0       0.  1950.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.120     0.120     0.120     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      4.000   500.000  1200.000  3300.000 13500.000     0.000     0.000     0.000     0.000     0.000
X1     10.000    10.000  2790.000  2980.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
X4      6.000  1950.000  2330.000  1948.000  2500.000  1945.000  2680.000  1940.000  3000.000  1941.300
X4   3230.000  1940.000  3470.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1950.000  2000.000  1949.000  2370.000  1945.000  2590.000  1944.000  2790.000  1945.000  2980.000
GR   1940.000  3100.000  1942.500  3350.000  1940.000  3510.000  1945.000  3520.000  1950.000  3700.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 10.000

3265 DIVIDED FLOW

10.00	0.95	1940.95	0.00	1950.00	1941.04	0.10	0.00	0.00	1944.00
500.	0.	0.	500.	0.	0.	201.	0.	0.	1945.00
0.00	0.00	0.00	2.49	0.120	0.120	0.120	0.000	1940.00	2996.21
0.056692	0.	0.	0.	0	0	10	0.00	285.76	3511.89

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSEL= 1940.95

STA=	2996.	2980.	3000.	3100.	3195.	3470.	3510.	3512.
PER Q=	0.0	0.6	53.8	16.0	7.7	21.5	0.3	
AREA=	0.0	1.8	94.7	44.8	21.5	37.9	0.9	
VEL=	0.0	1.8	2.8	1.8	1.8	2.8	1.7	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 10

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.056800	0.00	0.0	0.	1950.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 10.000

3265 DIVIDED FLOW

10.00	1.47	1941.47	0.00	1950.00	1941.63	0.16	0.00	0.00	1944.00
1200.	0.	0.	1200.	0.	0.	372.	0.	0.	1945.00
0.00	0.00	0.00	3.22	0.120	0.120	0.120	0.000	1940.00	2994.12

0.056681	0.	0.	0.	0	9	0.00	366.37	3512.94	

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSEL= 1941.47

STA=	2994.	2980.	3000.	3100.	3230.	3247.	3470.	3510.	3513.
PER Q=	0.0	0.8	46.7	22.9	0.1	10.4	18.7	0.4	
AREA=	0.0	4.3	147.0	106.6	1.4	51.9	58.8	2.2	
VEL=	0.0	2.4	3.8	2.6	0.6	2.4	3.8	2.2	


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada CDE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 10
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.056800	0.00	0.0	0.	1950.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 3
*SECNO 10.000
3265 DIVIDED FLOW
```

10.00	2.37	1942.37	0.00	1950.00	1942.66	0.29	0.00	0.00	1944.00
3300.	0.	0.	3300.	0.	0.	765.	0.	0.	1945.00
0.00	0.00	0.00	4.31	0.120	0.120	0.120	0.000	1940.00	2990.51
0.056717	0.	0.	0.	0	0	8	0.00	505.19	3514.74

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSEL= 1942.37

STA=	2991.	2980.	3000.	3100.	3230.	3337.	3470.	3510.	3515.
PER Q=	0.0	1.1	37.7	28.7	3.4	13.5	15.1	0.5	
AREA=	0.0	11.2	237.1	223.8	57.4	135.0	94.9	5.6	
VEL=	0.0	3.2	5.2	4.2	1.9	3.3	5.2	3.1	

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 10

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      G          WSEL       FQ
        0.        5.         0.         0.   0.056800       0.00       0.0        0.   1950.000    0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
 18-FEB-88    15:45:45                                                                          PAGE     8

   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROP       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XAL        XNCH       XNP        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST

*PROF 4
*SECNO 10.000
3265 DIVIDED FLOW
    10.00       4.54    1944.54       0.00    1950.00    1945.30       0.76       0.00       0.00    1944.00
   13500.        36.         16.    13448.         29.        13.    1914.          0.          0.    1945.00
     0.00       1.23       1.23       7.03      0.120      0.120      0.120      0.000    1940.00    2682.21
 0.056497         0.         0.         0.          0          0          6       0.00     693.53    3519.08
1
FLOW DISTRIBUTION FOR SECNO=     10.00          CWSEL=   1944.54

STA=     2682.     2790.     2980.     3000.     3100.     3230.     3350.     3470.     3510.     3519.
  PER Q=    0.3       0.1       1.5      27.1      27.2      13.2      19.0      10.8       0.7
  AREA=    29.0      13.1      41.2     453.9     505.6     316.7     394.7     181.6      20.6
   VEL=     1.2       1.2       5.0       8.1       7.3       5.6       6.5       8.1       4.7

1
 18-FEB-88    15:45:45                                                                          PAGE     9

**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

    Overflow X-Sec. 10
SUMMARY PRINTOUT TABLE  150
```

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10.000	0.00	0.00	0.00	1940.00	500.00	1940.95	0.00	1941.04	566.92	0.00	201.50	21.00
10.000	0.00	0.00	0.00	1940.00	1200.00	1941.47	0.00	1941.63	566.81	0.00	372.17	50.40
10.000	0.00	0.00	0.00	1940.00	3300.00	1942.37	0.00	1942.66	567.17	0.00	764.97	138.57
10.000	0.00	0.00	0.00	1940.00	13500.00	1944.54	0.00	1945.30	564.07	1.23	1956.26	568.41

Overflow X-Sec. 10

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.000	500.00	1940.95	0.00	0.00	-9.05	285.76	0.00
10.000	1200.00	1941.47	0.52	0.00	-8.53	366.37	0.00
10.000	3300.00	1942.37	0.90	0.00	-7.63	505.19	0.00
10.000	13500.00	1944.54	2.17	0.00	-5.46	693.53	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.16 - Normal Depth
J1       0        2                    0.0050
J2       1                -1
J3     150
NC 0.050   0.060    0.050      0.1       0.3
QT       4    3200     5900    10200     32000
X1 10.16      10     2968     3068
X2                                                                        15
GR1745.8     2000  1744.4     2110  1743.2     2161  1740.3     2193  1740.3     2224
GR1744.8     2268  1744.0     2968  1743.5     3018  1744.0     3068  1748.0     5000
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.16 - Normal Depth
J1     -10        3                    0.0050
J2       2                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.16 - Normal Depth
J1     -10        4                    0.0050
J2       3                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.16 - Normal Depth
J1     -10        5                    0.0050
J2      15                -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:08:27          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 13.16 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.005000       0.00      0.0       0.     0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.350     0.060     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
OT      4.300  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1     10.160    10.000  2968.000  3068.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.300     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1745.300  2000.000  1744.400  2110.000  1743.200  2161.000  1740.300  2193.000  1740.300  2224.000
GR   1744.800  2268.000  1744.000  2968.000  1743.500  3018.000  1744.000  3068.000  1748.000  5000.000
EJ      0.300     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 10.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.16	4.72	1745.02	0.00	0.00	1745.15	0.12	0.00	0.00	1744.00
3200.	2602.	315.	283.	874.	127.	253.	0.	0.	1744.00
0.00	2.98	2.47	1.12	0.050	0.050	0.060	0.000	1740.30	2061.05
0.005008	0.	0.	0.	0	0	4	0.00	1501.10	3562.14

FLOW DISTRIBUTION FOR SECNO= 10.16 CWSEL= 1745.02

STA=	2051.	2110.	2161.	2193.	2224.	2268.	2568.	3068.	3562.
PER Q=	0.5	4.7	15.1	27.1	13.0	20.9	9.8	8.9	
AREA=	15.2	62.4	104.7	146.4	108.8	436.1	127.3	252.7	
VEL=	1.0	2.4	4.6	5.9	3.8	1.5	2.5	1.1	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.16 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 10.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.16	5.26	1745.56	0.00	0.00	1745.71	0.14	0.00	0.00	1744.00
5900.	4465.	564.	871.	1374.	181.	589.	0.	0.	1744.00
0.00	3.25	3.11	1.48	0.050	0.050	0.060	0.000	1740.39	2018.73
0.004965	0.	0.	0.	0	0	6	0.00	1803.54	3822.27

FLOW DISTRIBUTION FOR SECNO= 10.16 CWSEL= 1745.56

STA=	2019.	2110.	2161.	2193.	2224.	2268.	2568.	3068.	3822.
PER Q=	1.3	4.7	10.5	17.5	9.9	31.8	9.6	14.8	
AREA=	53.0	89.8	122.0	163.1	132.5	813.1	181.2	588.9	
VEL=	1.5	3.1	5.1	6.3	4.4	2.3	3.1	1.5	


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CCRECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.16 - Normal Depth
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 3

CCHV=   0.100  CEHV=   0.300
*SECNO 10.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION      10.16 EXTENDED      0.34 FEET

    10.16      5.84  1746.14      0.00      0.00  1746.33      0.19      0.00      0.00  1744.00
 10200.      7249.      905.     2046.     1935.      239.     1109.        0.        0.   1744.00
     0.00      3.75      3.78      1.84     0.050     0.050     0.050     0.000  1740.30  2000.00
 0.005057        0.        0.        0.         0         0         7      0.00  2103.28  4103.28
)
FLOW DISTRIBUTION FOR SECNO=     10.16          CWSEL=   1746.14

STA=    2000.     2110.     2161.     2193.     2224.     2268.     2568.     3068.     4103.
  PER Q=      2.4       4.4       7.8      12.2       7.7      36.6       8.9      20.1
    AREA=   114.8     119.5     140.5     181.1     158.1    1220.4     239.3    1109.5
     VEL=     2.2       3.7       5.7       6.9       4.9       3.1       3.8       1.8
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
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MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.16 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 10.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 10.16 EXTENDED 2.14 FEET

10.16	7.64	1747.94	0.00	0.00	1748.27	0.33	0.00	0.00	1744.00	
32000.	19392.	2288.	10320.	3675.	419.	3753.	0.	0.	1744.00	
0.00	5.28	5.46	2.75	0.050	0.050	0.060	0.000	1740.30	2000.00	
0.004989	0.	0.	0.	0	0	9	0.00	2971.94	4971.94	

FLOW DISTRIBUTION FOR SECNO= 10.16 CWSEL= 1747.94

STA=	2000.	2110.	2161.	2193.	2224.	2268.	2568.	3068.	4972.
PER Q=	4.1	3.6	4.4	6.0	4.8	37.8	7.1	32.2	
AREA=	312.6	211.2	198.1	236.9	237.2	2479.3	419.2	3752.6	
VEL=	4.2	5.4	7.1	8.1	6.4	4.9	5.5	2.8	

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K

10.150	0.00	0.00	0.00	1740.30	3200.00	1745.02	0.00	1745.15	50.08	2.47	1253.77	452.18
10.150	0.00	0.00	0.00	1740.30	5900.00	1745.56	0.00	1745.71	49.65	3.11	2143.65	837.36
10.150	0.00	0.00	0.00	1740.30	10200.00	1746.14	0.00	1746.33	50.57	3.78	3283.31	1434.40
10.150	0.00	0.00	0.00	1740.30	32000.00	1747.94	0.00	1748.27	49.89	5.46	7847.17	4530.27

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.150	3200.00	1745.02	0.00	0.00	0.00	1501.10	0.00
10.150	5900.00	1745.56	0.54	0.00	0.00	1803.54	0.00
10.150	10200.00	1746.14	0.58	0.00	0.00	2103.28	0.00
10.150	32000.00	1747.94	1.80	0.00	0.00	2971.94	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 102 - Normal Depth
J1       0         2                    10.2  0.3046
J2       1                  -1
J3     150
NC 0.050    0.060    0.100      0.1      0.3
NT       4    1000     2100     4200    15600
X1 102.0         5     3200     4650
X2                                                          15
GR1790.5     2050  1788.0     3200  1786.9     3950  1788.0     4650  1792.0     5250
EJ
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 102 - Normal Depth
J1     -10         3                    0.3046
J2       2                  -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 102 - Normal Depth
J1     -10         4                    0.3046
J2       3                  -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 102 - Normal Depth
J1     -10         5                    0.3046
J2      15                  -1


ER
OF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   10:58:21          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXX   XXXX      X           XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1        CORECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 102 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        2.        0.        0.  0.004600      0.00      0.0       0.      0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.050      0.060      0.100      0.100      0.300      0.000      0.000      0.000      0.000      0.000
QT      4.000   1000.000   2100.000   4200.000  16600.000      0.000      0.000      0.000      0.000      0.000
X1    102.000      5.000   3200.000   4650.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   1790.500   2050.000   1788.000   3200.000   1786.000   3950.000   1766.000   4650.000   1792.000   5250.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 102.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

102.00	1.34	1788.24	0.00	0.00	1788.25	0.01	0.00	0.00	1788.00
1000.	7.	992.	2.	13.	1147.	4.	0.	0.	1788.00
0.00	0.49	0.86	0.41	0.050	0.100	0.060	0.000	1786.90	3089.16
0.004629	0.	0.	0.	0	0	5	0.00	1596.99	4686.15

FLOW DISTRIBUTION FOR SECNO= 102.00 CWSEL= 1788.24

STA=	3089.	3200.	4650.	4686.
PER Q=	0.7	99.2	0.2	
AREA=	13.4	1146.8	4.4	
VEL=	0.5	0.9	0.4	

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 132 - Normal Depth 10.2

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.004600	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROP	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 102.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

102.00	1.75	1788.65	0.00	0.00	1788.67	0.02	0.00	0.00	1788.00
2100.	93.	1982.	25.	97.	1741.	32.	0.	0.	1788.00
0.00	0.95	1.14	0.79	0.050	0.100	0.060	0.000	1786.90	2900.71
0.004600	0.	0.	0.	0	0	5	0.00	1846.89	4747.60

FLOW DISTRIBUTION FOR SECNO= 102.00 CWSEL= 1788.65

STA=	2901.	3200.	4650.	4748.

PER GE=	4.4	94.4	1.2
AREA=	97.4	1740.8	31.7
VEL=	1.0	1.1	0.8

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 132 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.004600	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

•PROF 3

CCHV= 0.100 CEHV= 0.300
•SECNO 102.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

102.00	2.28	1789.18	0.00	0.00	1789.21	0.03	0.00	0.00	1788.00
4200.	452.	3625.	123.	321.	2509.	105.	0.	0.	1788.00
0.00	1.41	1.44	1.18	0.050	0.100	0.060	0.000	1786.90	2656.89
0.004548	0.	0.	0.	0	0	5	0.00	2170.21	4827.10

FLOW DISTRIBUTION FOR SECNO= 102.00 CWSEL= 1789.18

STA=	2657.	3200.	4650.	4827.
PER Q=	10.8	86.3	2.9	
AREA=	320.6	2509.4	104.5	
VEL=	1.4	1.4	1.2	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 102 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	0.004600	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 3.100 CEHV= 0.300
*SECNO 102.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 102.00 EXTENDED 0.26 FEET

102.00	3.86	1790.76	0.00	0.00	1790.85	0.09	0.00	0.00	1788.00
16600.	4632.	10773.	1195.	1742.	4806.	573.	0.	0.	1788.00
0.00	2.66	2.24	2.09	0.050	0.100	0.060	0.000	1786.90	2050.00
0.004604	0.	0.	0.	0	0	4	0.00	3014.70	5064.70

FLOW DISTRIBUTION FOR SECNO= 102.00 CWSEL= 1790.76

STA=	2050.	3200.	4650.	5065.
PER Q=	27.9	64.9	7.2	
AREA=	1741.8	4806.1	573.2	
VEL=	2.7	2.2	2.1	

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
102.000	0.00	0.00	0.00	1786.90	1000.00	1788.24	0.00	1788.25	46.29	0.86	1164.51	146.97
102.000	0.00	0.00	0.00	1786.90	2100.00	1788.65	0.00	1788.67	46.00	1.14	1869.93	309.62
102.000	0.00	0.00	0.00	1786.90	4200.00	1789.18	0.00	1789.21	45.48	1.44	2934.52	622.78

102.000	0.00	0.00	3.00	1786.90	16600.00	1790.76	0.00	1790.85	46.04	2.24	7121.23	2446.59

1
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Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
102.000	1900.00	1788.24	0.00	0.00	0.00	1596.99	0.00
102.000	2100.00	1788.65	0.41	0.00	0.00	1846.89	0.00
102.000	4200.00	1789.18	0.53	0.00	0.00	2170.21	0.00
102.000	16600.00	1790.76	1.58	0.00	0.00	3014.70	0.00

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31-AUG-87 10:58:22 PAGE 11

SUMMARY OF ERRORS AND SPECIAL NOTES

1
31-AUG-87 10:58:32 PAGE 1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.36 - Normal Depth
J1       0        2                    0.0032
J2       1                -1
J3     150
NC 0.130   0.130    0.130      0.1      0.3
ST       4    3200     5900    10200    32000
X1 10.36         6     2230     5460
X2                                                                      15
GR1753.2    2000  1752.0     2230  1748.6     3490  1749.4     4560  1752.0     5460
GR1756.0    6410
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.36 - Normal Depth
J1     -10         3                    0.0032
J2       2                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.36 - Normal Depth
J1     -10         4                    0.0032
J2       3                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.36 - Normal Depth
J1     -10         5                    0.0032
J2      15                -1
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ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:09:05          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X           XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -   50,51,52,53,54,55
*************************************************

T1        CORECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.36 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.003200      0.00      0.0       0.    0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.130     0.130     0.130     0.100     0.300     0.000     0.000     0.000     0.000     0.000
OT      4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1     10.360     6.000  2230.000  5460.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1753.200  2000.000  1752.000  2230.000  1748.600  3480.000  1749.400  4560.000  1752.000  5460.000
GR   1756.800  6410.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 10.369
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.36	2.46	1751.06	0.00	0.00	1751.07	0.01	0.00	0.00	1752.00
3200.	0.	3200.	0.	0.	3800.	0.	0.	0.	1752.00
0.00	0.00	0.84	0.00	0.130	0.130	0.130	0.000	1748.60	2578.65
0.003197	0.	0.	0.	0	0	5	0.00	2555.69	5134.34

FLOW DISTRIBUTION FOR SECNO= 10.36 CWSEL= 1751.06

STA= 2579. 5460.
PER G= 100.0
AREA= 3800.4
VEL= 0.8

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.36 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.003200	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 10.360
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.36	3.21	1751.81	0.00	0.00	1751.83	0.02	0.00	0.00	1752.00
5900.	0.	5900.	0.	0.	5933.	0.	0.	0.	1752.00
0.00	0.00	0.99	0.00	0.130	0.130	0.130	0.000	1748.60	2298.94
0.003180	0.	0.	0.	0	0	5	0.00	3096.66	5395.60

FLOW DISTRIBUTION FOR SECNO= 10.36 CWSEL= 1751.81

```
STA=    2299.     3460.
  PER Q=    100.0
   AREA=   5933.4
    VEL=      1.0

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  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************

  T1        CCRFCD/COE OVERFLOW STUDY
  T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
  T3        Overflow Cross Section 10.36 - Normal Depth

  J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       -10.       4.        0.        0.  0.003200       0.00      0.0        0.      0.000     0.000

  J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

        3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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 31-AUG-87    00:09:05                                                    PAGE    6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

  *PROF  3

  CCHV=   0.100  CEHV=    0.300
  *SECNO 10.360
  2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     10.36      3.96   1752.56      0.00      0.00   1752.58      0.02      0.00      0.00   1752.00
    10200.        8.     10181.      10.       30.     8333.      37.        0.        0.     1752.00
       0.00      0.28      1.22      0.28     0.130     0.130     0.130     0.000   1748.60   2122.51
  0.003228         0.        0.        0.         0         0         4      0.00   3470.68   5593.19
1
 FLOW DISTRIBUTION FOR SECNO=     10.36          CWSEL=   1752.56

 STA=    2123.     2230.     5460.     5593.
   PER Q=      0.1      99.8       0.1
    AREA=     30.1    8333.2      37.3
     VEL=      0.3       1.2       0.3

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 31-AUG-87    00:09:05                                                    PAGE    7


  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************
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T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.36 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	0.003200	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 10.360
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3280 CROSS SECTION 10.36 EXTENDED 1.78 FEET

10.36	6.38	1754.98	0.00	0.00	1755.03	0.05	0.00	0.00	1752.00
3200.	626.	30487.	887.	547.	16140.	1053.	0.	0.	1752.00
0.00	1.15	1.89	0.84	0.130	0.130	0.130	0.000	1748.60	2000.00
0.003196	0.	0.	0.	0	0	6	0.00	4167.19	6167.19

FLOW DISTRIBUTION FOR SECNO= 10.36 CWSEL= 1754.98

STA=	2000.	2230.	5460.	6167.
PER Q=	2.0	95.3	2.8	
AREA=	546.9	16139.7	1052.8	
VEL=	1.1	1.9	0.8	

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10.360	0.00	0.00	0.00	1748.60	3200.00	1751.06	0.00	1751.07	31.97	0.84	3800.43	565.97
10.360	0.00	0.00	0.00	1748.60	5900.00	1751.21	0.00	1751.83	31.80	0.99	5933.39	1046.31

10.359	0.00	0.00	0.00	1748.60	10200.00	1752.56	0.00	1752.58	32.28	1.22	8400.71	1795.13
10.359	0.00	0.00	0.00	1748.60	32000.00	1754.98	0.00	1755.03	31.96	1.89	17739.44	5660.20

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.360	3200.00	1751.06	0.00	0.00	0.00	2555.69	0.00
10.360	5900.00	1751.81	0.75	0.00	0.00	3096.66	0.00
10.360	10200.00	1752.56	0.75	0.00	0.00	3470.68	0.00
10.360	32000.00	1754.98	2.42	0.00	0.00	4167.19	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.59 - Normal Depth
J1       0          2                    0.0030
J2       1                    -1
J3     150
NC 0.130    0.130    0.130      0.1      0.3
QT       4     3200     5900    10200    32000
X1 10.59           7     4050     5810
X2                                                                          15
GR1760.0     2000   1756.0     2450   1756.0     4050   1753.0     4540   1756.0     5810
GR1760.0     6630   1760.5     6780
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.59 - Normal Depth
J1     -10          3                    0.0030
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.59 - Normal Depth
J1     -10          4                    0.0030
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.59 - Normal Depth
J1     -10          5                    0.0030
J2      15                    -1


ER
EOF..
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1 **
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 31-AUG-87 TIME 00:09:21 *
****

****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
****


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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1992
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORPCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.59 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.003000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.130	0.130	0.130	0.100	0.300	0.000	0.000	0.000	0.000	0.000
GT	4.000	3200.000	5900.000	10200.000	32000.000	0.000	0.000	0.000	0.000	0.000
X1	10.590	7.000	4050.000	5810.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1760.000	2000.000	1756.000	2450.000	1756.000	4050.000	1753.000	4540.000	1756.000	5810.000
GR	1760.000	6630.000	1760.500	6780.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 10.590
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.59	3.33	1756.33	0.00	0.00	1756.35	0.01	0.00	0.00	1756.00	
3200.	163.	3035.	2.	541.	3228.	11.	0.	0.	1756.00	
0.00	0.30	0.94	0.18	0.130	0.130	0.130	0.000	1753.00	2412.40	
0.003013	0.	0.	0.	0	0	6	0.00	3466.12	5878.52	

FLOW DISTRIBUTION FOR SECNO= 10.59 CWSEL= 1756.33

STA=	2412.	2450.	4050.	5810.	5879.
PER Q=	0.0	5.0	94.9	0.1	
AREA=	6.3	534.8	3228.2	11.5	
VEL=	0.2	3.3	0.9	0.2	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCREEK/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.59 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.003000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 10.590
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.59	3.95	1756.95	0.00	0.00	1756.97	0.02	0.00	0.00	1756.00	
5900.	946.	4918.	36.	1579.	4320.	93.	0.	0.	1756.00	
0.00	0.60	1.14	0.38	0.130	0.130	0.130	0.000	1753.00	2342.59	
0.002995	0.	0.	0.	0	0	5	0.00	3663.12	6005.72	

FLOW DISTRIBUTION FOR SECNO= 10.59 CWSEL= 1756.95

```
STA=     2345.     2450.     4050.     5810.     6005.
 PER G=      0.3      15.7      83.4       0.6
  AREA=     51.3    1527.5    4320.3      93.4
   VEL=      0.4       0.6       1.1       0.4
```



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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1       CCRECO/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       Overflow Cross Section 10.59 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
     -10.       4.        0.        0.  0.003000      0.00      0.0       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

*PROF 3

CCHV=   0.100  CEHV=    0.300
*SECNO 10.590
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    10.59      4.68   1757.68      0.00      0.00   1757.70      0.02      0.00      0.00   1756.00
 10200.      2465.     7574.      161.      2846.     5596.      289.         0.         0.   1756.00
     0.00      0.87      1.35      0.56     0.130     0.130     0.150     0.000   1753.00   2261.04
 0.002998        0.        0.        0.         0         9         5      0.00   3893.30   6154.34
1
FLOW DISTRIBUTION FOR SECNO=     10.59          CWSEL=   1757.68

STA=     2261.     2450.     4050.     5810.     6154.
  PER G=      0.9      23.3      74.3       1.6
   AREA=    158.7    2687.5    5596.3     289.2
    VEL=      0.6       0.9       1.4       0.6
```



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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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```
T1        CORFCD/COE OVERFLOW STUDY
I2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.59 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.       5.         0.         0.  0.003000       0.00       0.0        0.         0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 10.590
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
 3280 CROSS SECTION      10.59 EXTENDED       0.03 FEET

     10.59       7.03  1760.03       0.00       0.00  1760.08       0.05       0.00       0.00  1756.00
     32000.     11184.    19142.     1675.      7353.     9725.     1661.         0.         0.  1756.00
       0.00       1.52      1.97      1.11      0.130     0.130     0.130      0.000    1753.00  2000.00
  0.003035         0.        0.        0.          0         0         5       0.00    4637.73  6637.73
1
 FLOW DISTRIBUTION FOR SECNO=      10.59          CWSEL=    1760.03

 STA=     2000.     2450.     4050.     5810.     6630.
   PER Q=      2.9      32.1      59.8       5.2
   AREA=    911.6    6441.2    9725.3    1661.1
    VEL=      1.0       1.6       2.0       1.0

1
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 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section

 SUMMARY PRINTOUT TABLE  150

       SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
       10.590      0.00       0.00       0.00    1753.00    3200.00    1756.33       0.00    1756.35      30.13       0.94    3780.74     583.00
       10.590      0.00       0.00       0.00    1753.00    5900.00    1756.95       0.00    1756.97      29.95       1.14    5992.51    1078.07
```

10.590	0.00	0.00	0.00	1753.00	10200.00	1757.68	0.00	1757.70	29.98	1.35	5731.64	1862.95
10.590	0.00	0.00	0.00	1753.00	32000.00	1760.03	0.00	1760.08	30.35	1.97	18739.35	5808.98

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.590	3200.00	1756.33	0.00	0.00	0.00	3466.12	0.00
10.590	5900.00	1756.95	0.62	0.00	0.00	3663.12	0.00
10.590	10200.00	1757.68	0.72	0.00	0.00	3893.30	0.00
10.590	32000.00	1760.03	2.35	0.00	0.00	4637.73	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.84 - Normal Depth
J1       0          2                    0.0047
J2       1                    -1
J3     150
NC 0.120    0.045    0.050      0.1       0.3
QT       4   3200     5900    10200     32000
K1 10.84         6     3840     6340
K2                                                                        15
GR1764.0     2030  1760.0     2360  1760.0     3840  1757.2     4290  1760.0     6340
GR1764.0     7440
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.84 - Normal Depth
J1    -10          3                    0.0047
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.84 - Normal Depth
J1    -10          4                    0.0047
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 10.84 - Normal Depth
J1    -10          5                    0.0047
J2      15                    -1
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ER
EOF..
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1*************************************************
*  WATER SURFACE PROFILES                       *
*  VERSION OF NOVEMBER 1976                     *
*  UPDATED AUGUST 1983                          *
*                                               *
*  RUN DATE  31-AUG-87 TIME   00:10:05          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
*****************************************
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X        X     X            X     X
X      X  X        X                  X     X
XXXXXXXX  XXXX     X           XXXXX   XXXXX
X      X  X        X                  X
X      X  X        X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.84 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FG
       0.        2.        0.        0.  0.004700      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.120     0.045     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1      10.840     6.000  3840.000  6340.000     0.000     0.000     0.000     0.000     0.000     0.000
X2       0.100     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR    1764.000  2000.000  1760.000  2360.000  1760.000  3840.000  1757.200  4299.000  1760.000  6340.000
GR    1764.000  7440.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 10.840
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.84	1.91	1755.11	0.00	0.00	1759.17	0.06	0.00	0.00	1760.00
3200.	0.	3200.	0.	0.	1621.	0.	0.	0.	1760.00
0.00	0.00	1.97	0.00	0.120	0.050	0.045	0.000	1757.20	3983.74
0.004706	0.	0.	0.	0	0	6	0.00	1701.43	5685.18

FLOW DISTRIBUTION FOR SECNO= 10.84 CWSEL= 1759.11

STA= 3984. 6340.
PER G= 100.0
AREA= 1421.1
VEL= 2.0

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.84 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.004700	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
31-AUG-87 00:10:06 PAGE 4

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 10.840
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.84	2.40	1759.60	0.00	0.00	1759.68	0.08	0.00	0.00	1760.00
5900.	0.	5900.	0.	0.	2561.	0.	0.	0.	1760.00
0.00	0.00	2.30	0.00	0.120	0.050	0.045	0.000	1757.20	3905.07
0.004726	0.	0.	0.	0	0	6	0.00	2138.48	6043.56

FLOW DISTRIBUTION FOR SECNO= 10.84 CWSEL= 1759.60

STA= 3984. 6340.

STA= 5935. 6340.
PER Q= 100.0
AREA= 2560.9
VEL= 2.3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 10.84 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.024700	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV	
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TRA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 10.840
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

10.84	2.91	1760.11	0.00	0.00	1760.22	0.11	0.00	0.00	1760.00
10200.	31.	10169.	1.	160.	3770.	2.	0.	0.	1760.00
0.00	0.19	2.70	0.32	0.120	0.050	0.045	0.000	1757.20	2350.30
0.004765	0.	0.	0.	0	0	6	0.00	4019.34	6369.64

FLOW DISTRIBUTION FOR SECNO= 10.84 CWSEL= 1760.11

STA= 2350. 3840. 6340. 6370.
PER Q= 0.3 99.7 0.0
AREA= 160.0 3769.5 1.6
VEL= 0.2 2.7 0.3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

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T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 10.84 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        -10.       5.         0.         0.   0.004700       0.00       0.0        0.       0.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 10.840
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    10.84      4.25   1761.45      0.00       0.00   1761.68       0.24       0.00       0.00   1760.00
 32000.     2385.     29092.      523.     2233.      7113.       287.          0.          0.   1760.00
     0.00      1.07      4.09      1.82     0.120      0.050      0.045      0.000    1757.20   2229.93
 0.004697        0.        0.        0.         0          0          5       0.00    4507.45   6737.43

 FLOW DISTRIBUTION FOR SECNO=     10.84          CWSEL=   1761.45

 STA=    2230.     2360.     3840.     6340.     6737.
   PER Q=     0.2       7.3      90.9       1.6
    AREA=    94.0    2138.9    7113.0     287.2
     VEL=     0.7       1.1       4.1       1.8
```



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 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section
 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
      10.840     0.00       0.00       0.00    1757.20    3200.00    1759.11       0.00    1759.17      47.06       1.97    1621.06     466.48
      10.840     0.00       0.00       0.00    1757.20    5900.00    1759.60       0.00    1759.68      47.26       2.30    2560.85     858.26
      10.840     0.00       0.00       0.00    1757.20   10200.00    1760.11       0.00    1760.22      47.65       2.70    3931.18    1477.68
      10.840     0.00       0.00       0.00    1757.20   32000.00    1761.45       0.00    1761.66      46.97       4.09    9633.05    4669.13
```

Overflow Cross Sectior

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.840	3200.00	1759.11	0.00	0.00	0.00	1701.43	0.00
10.840	5900.00	1759.60	0.49	0.00	0.00	2138.48	0.00
10.840	10200.00	1760.11	0.51	0.00	0.00	4019.34	0.00
10.840	32000.00	1761.45	1.34	0.00	0.00	4507.49	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11
J1             2                    0.0106                                  1990
J2     1                -1
J3   150
NC 0.120   0.120    0.120
ET     4      400      800     2900     9500
K1    11        8     3550     3670
K2                                                                          15.0
K4     4  1987.3     1970   1986.1     2190     1987     2470   1988.3     2750
GR  1989     1540   1987.5     1760   1986.5     1990   1986.0     3550   1986.0     3670
GR  1987     4270   1987.5     4530     1991     4770
EJ
T1          Clark County, Nevada COE -  50 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11
J1             3                    0.0106                                  1990
J2     2                -1
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 10
J1             4                    0.0106                                  1990
J2     3                -1
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11
J1             5                    0.0106                                  1990
J2    15                -1


ER
EOF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:46:19          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXX   XXXX      X          XXXXX   XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 11

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.        2.         0.         0.   0.010600       0.00       0.0        0.   1990.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC       0.120      0.120      0.120      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT       4.000    400.000    800.000   2900.000   9500.000      0.000      0.000      0.000      0.000      0.000
X1      11.000      8.000   3550.000   3670.000      0.000      0.000      0.000      0.000      0.000      0.000
X2       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
X4       4.000   1987.300   1970.000   1986.100   2190.000   1987.000   2470.000   1988.300   2750.000      0.000
GR    1989.000   1540.000   1987.500   1760.000   1986.500   1890.000   1986.000   3550.000   1986.000   3670.000
GR    1987.000   4270.000   1987.500   4530.000   1991.000   4770.000      0.000      0.000      0.000      0.000
EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
   SECNO      DEPTH     CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
```

Q	WLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 11.000

3265 DIVIDED FLOW

11.00	0.80	1986.80	0.00	1990.00	1986.81	0.01	0.00	0.00	1986.00
400.	159.	106.	134.	245.	96.	154.	0.	0.	1986.00
0.00	0.65	1.10	0.69	0.120	0.120	0.120	0.000	1986.00	1650.52
0.010577	0.	0.	0.	0	0	8	0.00	1299.57	4152.23

FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 1986.80

STA=	1851.	1890.	1920.	2190.	2409.	3550.	3670.	4152.
PER Q=	0.5	0.4	7.2	12.2	19.5	26.5	33.6	
AREA=	6.0	4.6	45.4	77.0	112.3	96.4	193.8	
VEL=	0.4	0.4	0.6	0.6	0.7	1.1	0.7	

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 11

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	2.	0.	0.013600	0.00	0.0	0.	1990.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 11.000

3265 DIVIDED FLOW

11.00	1.05	1987.05	0.00	1990.00	1987.06	0.01	0.00	0.00	1986.00
800.	353.	166.	281.	449.	126.	330.	0.	0.	1986.00
0.00	0.79	1.31	0.85	0.120	0.120	0.120	0.000	1986.00	1818.62
0.010576	0.	0.	0.	0	0	7	0.00	1701.25	4295.52

FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 1987.05

STA=	1813.	1890.	1945.	2190.	2470.	3550.	3670.	4270.	4296.
PER Q=	1.3	1.0	8.3	14.0	19.8	20.7	35.2	0.0	
AREA=	19.6	15.1	82.5	139.7	191.7	125.9	329.4	0.6	
VEL=	0.5	0.5	0.8	0.8	0.8	1.3	0.9	0.1	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 100 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 10

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.010600	0.00	0.0	0.	1990.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

•PROF 3

•SECNO 11.000

3265 DIVIDED FLOW

11.00	1.68	1987.68	0.00	1990.00	1987.71	0.03	0.00	0.00	1986.00
2900.	1450.	363.	1088.	1226.	202.	921.	0.	0.	1986.00
0.00	1.18	1.80	1.33	0.120	0.120	0.120	0.000	1986.00	1733.61
0.010568	0.	0.	0.	0	0	5	0.00	2459.48	4542.34

FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 1987.68

STA=	1734.	1760.	1890.	1970.	2190.	2470.	2616.	3550.	3670.	4270.	4530.	4542.
PER Q=	0.0	3.0	2.3	9.3	15.1	1.1	19.2	12.5	34.7	2.8	0.0	
AREA=	2.4	89.4	62.4	215.6	316.4	49.8	490.8	201.6	708.0	111.8	1.1	
VEL=	0.3	1.0	1.1	1.3	1.4	0.6	1.1	1.8	1.4	0.7	0.3	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 11

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.010600	0.00	0.0	0.	1990.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IRU	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

*SECNO 11.000
11.00	2.67	1983.67	0.00	1990.00	1988.73	0.06	0.00	0.00	1986.00
9500.	5288.	787.	3425.	2988.	320.	1718.	0.	0.	1986.00
0.00	1.77	2.46	1.99	0.120	0.120	0.120	0.000	1986.00	1588.36
0.010630	0.	0.	0.	0	0	5	0.00	3021.89	4610.25

1
FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 1988.67

STA=	1538.	1760.	1890.	1970.	2190.	2470.	2750.	3550.	3670.	4270.	4530.	4610.
PER Q=	0.9	4.1	2.3	9.2	13.2	3.9	21.6	8.3	29.3	6.3	0.4	
AREA=	100.4	217.1	141.6	433.4	593.7	285.7	1216.2	320.4	1302.2	369.3	47.0	
VEL=	0.9	1.8	1.9	2.0	2.1	1.3	1.7	2.5	2.1	1.6	0.9	

1
18-FEB-88 15:46:20 PAGE 9

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 11

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11.000	0.00	0.00	0.00	1986.00	400.00	1986.80	0.00	1986.81	105.77	1.10	535.58	38.89
11.000	0.00	0.00	0.00	1986.00	800.00	1987.05	0.00	1987.06	105.76	1.31	904.57	77.79

11.000	0.00	0.00	0.00	1986.00	2900.00	1987.68	0.00	1987.71	105.68	1.80	2248.12	282.10
11.000	0.00	0.00	0.00	1986.00	9500.00	1988.67	0.00	1988.73	106.30	2.46	5027.02	921.42

Overflow X-Sec. 11

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.000	400.00	1986.80	0.00	0.00	-3.20	1299.57	0.00
11.000	800.00	1987.05	0.25	0.00	-2.95	1701.25	0.00
11.000	2900.00	1987.68	0.63	0.00	-2.32	2459.48	0.00
11.000	9500.00	1988.67	0.99	0.00	-1.33	3021.89	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.04 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.080    0.080    0.070      0.1       0.3
ST       4     3200     5900    10200     32000
X1 11.04           7     3430     3560
K2                                                                          15
GR1768.0     2000  1764.0     2780  1766.3     3430  1763.0     3950  1764.0     3960
GR1764.0     5110  1768.0     6700
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.04 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.04 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.04 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1
```

```
ER
EOF..
```

1 **
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 31-AUG-87 TIME 00:10:23 *
****

****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
****


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X            X     X
X     X  X         X                  X     X
XXXXXXX  XXXX      X          XXXXX    XXXXX
X     X  X         X                  X
X     X  X         X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

1
31-AUG-87 00:10:24

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**********
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**********
```

T1 CORFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.04 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	EG
	0.	2.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.080	0.080	0.070	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	4.000	3200.000	5900.000	10200.000	32000.000	0.000	0.000	0.000	0.000	0.000
X1	11.040	7.000	3430.000	3960.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1768.000	2000.000	1764.000	2780.000	1766.300	3430.000	1763.000	3950.000	1764.000	3960.000
GR	1764.000	5110.000	1768.000	6700.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 11.040
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

11.04	2.13	1765.19	0.00	0.00	1765.22	0.03	0.00	0.00	1766.30
3200.	310.	631.	2259.	336.	393.	1643.	0.	0.	1764.00
0.00	0.92	1.60	1.37	0.080	0.070	0.080	0.000	1763.00	2548.77
0.004970	0.	0.	0.	0	0	7	0.00	2542.11	5581.35

FLOW DISTRIBUTION FOR SECNO= 11.04 CWSEL= 1765.19

STA=	2549.	2780.	3115.	3960.	5110.	5581.
PER Q=	4.0	5.7	19.7	62.5	8.1	
AREA=	137.1	198.7	393.3	1363.7	279.5	
VEL=	0.9	0.9	1.6	1.5	0.9	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.04 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 11.040
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

11.04	2.65	1765.65	0.00	0.00	1765.69	0.04	0.00	0.00	1766.30

```
     5900.      750.     1050.     4100.      650.      575.     2438.        0.          0.     1764.00
      0.00      1.15      1.83      1.68     0.080     0.070     0.080     0.000    1763.00     2458.36
 0.004994        0.        0.        1.         0         0         5      0.00    3020.88     5765.64
)
 FLOW DISTRIBUTION FOR SECNO=     11.04          CWSEL=   1765.65

 STA=    2458.     2780.     3246.     3960.     5110.     5766.
   PER Q=     5.2       7.5      17.8      58.9      10.6
    AREA=   265.3     384.4     574.5    1896.8     540.7
     VEL=     1.2       1.2       1.8       1.8       1.2

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  31-AUG-87     00:10:24                                                                    PAGE     5


 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 T1         CORFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 11.04 - Normal Depth

 J1  ICHECK      INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL       FQ
       -10.        4.        0.        0.  0.005000        0.00       0.0         0.      0.000      0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC     IRU       CHNIM      ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000      0.000

1
  31-AUG-87     00:10:24                                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.040
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

 3265 DIVIDED FLOW

    11.04      3.19  1766.19      0.00      0.00  1766.25      0.06      0.00      0.00  1766.30
   10200.     1596.     1709.     6895.     1147.      829.     3475.        0.        0.  1764.00
     0.00      1.39      2.06      1.98     0.080     0.070     0.080     0.000  1763.00  2352.63
 0.004966        0.        0.        1.         0         0         5      0.00  3560.84  5981.18
)
 FLOW DISTRIBUTION FOR SECNO=     11.04          CWSEL=   1766.19

 STA=    2353.     2780.     3399.     3960.     5110.     5981.
   PER Q=     6.4       9.3      16.8      54.6      13.0
    AREA=   468.3     678.7     829.5    2520.4     954.7
     VEL=     1.4       1.4       2.1       2.2       1.4

1
  31-AUG-87     00:10:24                                                                    PAGE     7
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  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************

  T1        CCRECO/COE OVERFLOW STUDY
  T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
  T3        Overflow Cross Section 11.04 - Normal Depth

  J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       -10.        5.         0.         0.   0.005000       0.00       0.0         0.       0.000      0.000

  J2  NPROF      IPLOT      PREVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

      15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

I
  31-AUG-87     00:10:24                                                                          PAGE     8

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XAL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

  *PROF 4

  CCHV=   0.100  CEHV=    0.300
  *SECNO 11.040
  2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
       11.04        4.77    1767.77       0.03       0.00    1767.89       0.12       0.00       0.00    1766.30
     32000.        7065.      5387.     19548.      3093.      1667.      7168.         0.         0.      1764.00
        0.00        2.28       3.23       2.73      0.080      0.070      0.080      0.000    1763.00    2044.27
   0.005032          0.         0.         0.          0          0          4       0.00    4565.47    6609.75

  FLOW DISTRIBUTION FOR SECNO=      11.04          CWSEL=    1767.77

  STA=     2044.      2780.      3430.      3960.      5110.      6610.
    PER Q=      8.7       13.4       16.8       43.3       17.8
     AREA=   1387.9     1704.9     1666.7     4338.9     2829.2
      VEL=      2.0        2.5        3.2        3.2        2.0

1
  31-AUG-87     00:10:24                                                                          PAGE     9


  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************

  NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

    Overflow Cross Section
```

SUMMARY PRINTOUT TABLE 153

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11.040	0.00	0.00	0.00	1763.00	3200.00	1765.19	0.00	1765.22	49.70	1.60	2372.18	453.90
11.040	0.00	0.00	0.00	1763.00	5900.00	1765.65	0.00	1765.69	49.94	1.83	3661.74	834.85
11.040	0.00	0.00	0.00	1763.00	10200.00	1766.19	0.00	1766.25	49.66	2.06	5451.59	1447.47
11.040	0.00	0.00	0.00	1763.00	32000.00	1767.77	0.00	1767.89	50.32	3.23	11927.61	4511.04

1
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Overflow Cross Section

SUMMARY PRINTOUT TABLE 159

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.040	3200.00	1765.19	0.00	0.00	0.00	2542.11	0.00
11.040	5900.00	1765.65	0.46	0.00	0.00	3020.88	0.00
11.040	10200.00	1766.19	0.54	0.00	0.00	3580.84	0.00
11.040	32000.00	1767.77	1.58	0.00	0.00	4565.47	0.00

1
31-AUG-87 00:10:24 PAGE 11

SUMMARY OF ERRORS AND SPECIAL NOTES

1
31-AUG-87 00:10:31 PAGE 1

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.27 - Normal Depth
J1       0          2                    0.0036
J2       1                -1
J3     150
NC 0.120    0.080    0.080      0.1      0.3
GT       4   3200     5900    10200    32000
X1 11.27         5     2940     7460
X2                                                                        15
GR1776.0    2000  1772.0     2940  1757.7     4340  1772.0     7460  1776.0     8460
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.27 - Normal Depth
J1     -10          3                    0.0036
J2       2                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.27 - Normal Depth
J1     -10          4                    0.0036
J2       3                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.27 - Normal Depth
J1     -10          5                    0.0036
J2      15                -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:10:39          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 11.27 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        2.        3.        0.  0.003600      0.00      0.0       0.     0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.120     0.080     0.083     0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET       4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1      11.270     5.000  2940.003  7460.000     0.000     0.000     0.000     0.000     0.000     0.000
X2       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR    1776.000  2000.000  1772.000  2940.000  1767.700  4340.000  1772.000  7460.000  1776.000  8460.000
EJ       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

•PROF 1

CCHV= 0.100 CEHV= 0.300
•SECNO 11.270
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.27	2.25	1769.95	0.03	0.00	1769.97	0.02	0.00	0.00	1772.00
3200.	0.	3200.	0.	0.	2660.	0.	0.	0.	1772.00
0.00	0.00	1.20	0.00	0.120	0.080	0.080	0.000	1767.70	3607.57
0.003587	0.	0.	0.	0	0	4	0.00	2364.70	5972.27

FLOW DISTRIBUTION FOR SECNO= 11.27 CWSEL= 1769.95

STA= 3608. 7460.
PER Q= 100.0
AREA= 2659.7
VEL= 1.2

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.27 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.003600	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	WLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

•PROF 2

CCHV= 0.100 CEHV= 0.300
•SECNO 11.270
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.27	2.82	1770.52	0.03	0.00	1770.55	0.03	0.00	0.00	1772.00
5900.	0.	5900.	0.	0.	4191.	0.	0.	0.	1772.00
0.00	0.00	1.41	0.00	0.120	0.080	0.080	0.000	1767.70	3420.62
0.003627	0.	0.	0.	0	0	5	0.00	2968.29	6388.91

FLOW DISTRIBUTION FOR SECNO= 11.27 CWSEL= 1770.52

STA= 3421. 7460.

```
  PER Q=    100.0
  AREA=   4190.8
   VEL=      1.4

1
 31-AUG-87     00:10:39                                                                    PAGE     5


 ************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1        CORPCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 11.27 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       4.        0.        0.  0.003600      0.00      0.0       0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
 31-AUG-87     00:10:39                                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROP      VOL       TWA     LEFT/RIGHT
    TIME      V_OB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.270
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     11.27       3.47   1771.17      0.00      0.00   1771.21      0.04      0.00      0.00   1772.00
    10200.         0.   10200.         0.         0.    6314.         0.         0.         0.   1772.00
      0.00       0.00      1.62      0.00     0.120     0.080     0.080     0.000   1767.70   3211.53
  0.003633         0.         0.         0.         0         0         5      0.00   3643.36   6854.88
3
 FLOW DISTRIBUTION FOR SECNO=     11.27          CWSEL=   1771.17

 STA=    3212.     7460.
   PER Q=    100.0
    AREA=   6314.1
     VEL=      1.6

1
 31-AUG-87     00:10:39                                                                    PAGE     7


 ************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ************************************************
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```
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 11.27 - Normal Depth

J1  ICHECK     INO        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.        5.         0.         0.   0.003600       0.00       0.0        0.       0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   0          QLOB       QCH        QROB       ALOB       ACH        ARCH       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

*PROF 4

CCHV=   0.100  CEHV=   0.300
*SECNO 11.270
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    11.27       5.16   1772.86       0.00       0.00    1772.95       0.09       0.00       0.00    1772.00
    32000.        37.      31903.       59.        87.     13611.       93.         0.         0.     1772.00
        0.00      0.43       2.34       0.54       0.120      0.080      0.080      0.000   1767.70    2737.62
 0.003662          0.         0.         0.          0          0          4         0.00    4937.69    7675.30
1
FLOW DISTRIBUTION FOR SECNO=     11.27          CWSEL=   1772.86

STA=     2738.     2940.     7460.     7675.
  PER Q=      0.1      59.7       0.2
   AREA=     57.1   13610.8      92.7
    VEL=      0.4       2.3       0.6
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

  Overflow Cross Section
SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     11.270       0.00       0.00       0.00    1767.70    3200.00    1769.95       0.00    1769.97      35.87      1.20    2659.72     534.32
     11.270       0.00       0.00       0.00    1767.70    5900.00    1770.52       0.00    1770.55      36.27      1.41    4190.83     979.71
     11.270       0.00       0.00       0.00    1767.70   10200.00    1771.17       0.00    1771.21      36.33      1.62    6314.05    1692.19
     11.270       0.00       0.00       0.00    1767.70   32000.00    1772.86       0.00    1772.95      36.62      2.34   13790.59    5288.14
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.270	3200.00	1769.95	0.00	0.00	0.00	2364.70	0.00
11.270	5900.00	1770.52	0.57	0.00	0.00	2968.29	0.00
11.270	10200.00	1771.17	0.64	0.00	0.00	3643.36	0.00
11.270	32000.00	1772.86	1.70	0.00	0.00	4937.69	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.48 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.080    0.080    0.080      0.1      0.3
QT       4    3200     5600    10200    32000
X1 11.48         7     3340     3860
X2                                                                          15
GR1780.0     1000   1776.0     2000   1772.0     3340   1771.4     3390   1772.0     3860
GR1776.0     7540   1780.0     8690
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.48 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.48 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.48 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1


ER
EOF..
```

172

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:10:54          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 11.48 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.005000      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.080     0.080     0.080     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
X1     11.480     7.000  3340.000  3860.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1780.000  1000.000  1776.000  2000.000  1772.000  3340.000  1771.400  3390.000  1772.000  3860.000
GR   1776.000  7540.000  1780.000  8690.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q       QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF I

CCHV= 0.100 CEHV= 0.300
*SECNO 11.480
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.48	2.07	1773.47	0.00	0.00	1773.51	0.04	0.00	0.00	1772.00
3200.	384.	1761.	1055.	360.	918.	989.	0.	0.	1772.00
0.00	1.07	1.92	1.07	0.080	0.080	0.080	0.000	1771.40	2848.97
0.004992	0.	0.	0.	0	0	5	0.00	2359.91	5208.78

FLOW DISTRIBUTION FOR SECNO= 11.48 CWSEL= 1773.47

STA=	2849.	3340.	3860.	5209.
PER Q=	12.0	55.0	33.0	
AREA=	360.0	919.3	988.7	
VEL=	1.1	1.9	1.1	

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.48 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 11.490
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.49	2.58	1773.98	0.00	0.00	1774.03	0.05	0.00	0.00	1772.00
5900.	855.	2696.	2349.	656.	1185.	1801.	0.	0.	1772.00
0.00	1.30	2.28	1.30	0.080	0.080	0.030	0.000	1771.40	2677.24
0.005006	0.	0.	0.	0	0	5	0.00	3002.88	5680.12

FLOW DISTRIBUTION FOR SECNO= 11.48 CWSEL= 1773.98

```
 STA=     2677.     3340.     3860.     5680.
   PER Q=     14.5      45.7      39.8
    AREA=    655.6    1184.7    1900.3
     VEL=      1.3       2.3       1.3

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 31-AUG-87    00:10:55                                                    PAGE     5


 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1        CORPCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 11.48 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       4.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
 31-AUG-87    00:10:55                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.480
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    11.48      3.14   1774.54      0.00      0.00   1774.61      0.06      0.00      0.00   1772.00
    10200.     1678.     3915.     4607.     1083.     1478.     2975.        0.        0.   1772.00
      0.00      1.55      2.65      1.55     0.080     0.080     0.080     0.000   1771.40   2487.98
 0.005045        0.        0.        0.         0         0         5      0.00   3711.89   6199.87

 FLOW DISTRIBUTION FOR SECNO=     11.48          CWSEL=   1774.54

 STA=     2489.     3340.     3860.     6200.
   PER Q=     16.4      38.4      45.2
    AREA=    1083.4    1478.5    2975.4
     VEL=      1.5       2.6       1.5

1
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 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************
```

T1 CORFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.48 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	5.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROF	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 11.480
2095 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.48	4.76	1776.16	0.00	0.00	1776.26	0.11	0.00	0.00	1772.00
32000.	6341.	8245.	17414.	2895.	2316.	7945.	0.	0.	1772.00
0.00	2.19	3.56	2.19	0.080	0.080	0.080	0.000	1771.40	1960.51
0.004997	0.	0.	0.	0	0	5	0.00	5624.90	7585.41

FLOW DISTRIBUTION FOR SECNO= 11.48 CWSEL= 1776.16

STA=	1951.	3340.	3960.	7540.	7585.
PER Q=	19.8	25.8	54.4	0.0	
AREA=	2894.8	2318.1	7941.3	3.6	
VEL=	2.2	3.6	2.2	0.2	

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11.480	0.00	0.00	0.00	1771.40	3200.00	1773.47	0.00	1773.51	49.92	1.92	2267.03	452.89
11.480	0.00	0.00	0.00	1771.40	5900.00	1773.98	0.00	1774.03	50.06	2.28	3640.64	833.91
11.480	0.00	0.00	0.00	1771.40	10200.00	1774.54	0.00	1774.61	50.45	2.65	5537.32	1436.11
11.480	0.00	0.00	0.00	1771.40	32000.00	1776.16	0.00	1776.26	49.97	3.56	13157.76	4526.92

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.480	3200.00	1773.47	0.00	0.00	0.00	2359.91	0.00
11.480	5900.00	1773.98	0.51	0.00	0.00	3002.88	0.00
11.480	10200.00	1774.54	0.56	0.00	0.00	3711.89	0.00
11.480	32000.00	1776.16	1.61	0.00	0.00	5624.90	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.77 - Normal Depth
J1      0           2                    0.0050
J2      1                -1
J3    150
NC 0.080   0.080   0.080     0.1      0.3
ST      4    3200    5900   10200    32000
X1 11.77         5    2000    6730
X2                                                              15
GR1784.0    1220  1780.0    2000  1776.0    3430  1780.0    6730  1784.0    8240
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.77 - Normal Depth
J1    -10           3                    0.0050
J2      2                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.77 - Normal Depth
J1    -10           4                    0.0050
J2      3                -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.77 - Normal Depth
J1    -10           5                    0.0050
J2     15                -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:11:09          *
 *************************************************
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```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X         X     X            X     X
X     X  X         X                  X     X
XXXXXXX  XXXX      X          XXXXX    XXXXX
X     X  X         X                  X
X     X  X         X     X            X
X     X  XXXXXXX    XXXXX             XXXXXXX
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 *************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 *************************************************

 T1        CORECD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 11.77 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.005000      0.00      0.0       0.     0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 NC       0.080     0.080     0.080     0.100     0.300     0.000     0.000     0.000     0.000     0.000
 QT       4.000  3200.000  5900.000 10200.000 32000.000     0.000     0.000     0.000     0.000     0.000
 X1      11.770     5.000  2000.000  6730.000     0.000     0.000     0.000     0.000     0.000     0.000
 X2       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
 GR    1784.000  1220.000  1780.000  2000.000  1776.000  3430.000  1780.000  6730.000  1784.000  8240.000
 EJ       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         GLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
```

```
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TCPWID    ENDST

 *PROF 1

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.770
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    11.77      2.02   1778.02      0.00      0.00   1778.05      0.03      0.00      0.00   1780.00
    3200.        0.    3200.        0.        0.    2418.        0.        0.        0.   1780.00
     0.00      0.00      1.32      0.00     0.080     0.080     0.080     0.000   1776.00   2706.97
 0.004999        0.        0.        0.         0         0         4      0.00   2351.56   5098.53
1
 FLOW DISTRIBUTION FOR SECNO=     11.77          CWSEL=   1778.02

 STA=    2707.     6730.
   PER Q=    100.0
    AREA=   2418.4
     VEL=      1.3

1
  31-AUG-87     00:11:10                                                              PAGE     3


  ********************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -   50,51,52,53,54,55
  ********************************************

  T1         CCRECD/COE OVERFLOW STUDY
  T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
  T3         Overflow Cross Section 11.77 - Normal Depth

  J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       -10.        3.        0.        0.  0.005000      0.00      0.2       0.      0.000     0.000

  J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

        2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  31-AUG-87     00:11:10                                                              PAGE     4

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TCPWID      ENDST

  *PROF 2

  CCHV=   0.100  CEHV=   0.300
  *SECNO 11.770
  2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     11.77      2.54   1778.54      0.00      0.00   1778.58      0.04      0.00      0.00   1780.00
     5900.        0.    5900.        0.        0.    3817.        0.        0.        0.   1780.00
      0.00      0.00      1.55      0.00     0.080     0.080     0.080     0.000   1776.00   2521.67
  0.005033        0.        0.        0.         0         0         5      0.00   3004.46   5526.14
 1
  FLOW DISTRIBUTION FOR SECNO=     11.77          CWSEL=   1778.54

  STA=    2522.     6730.
```

```
 PER Q=    100.0
  AREA=   3816.8
   VEL=      1.5

1
 31-AUG-87     00:11:10                                                                    PAGE     5


 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1        CORPCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 11.77 - Normal Depth

 J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.        4.         0.         0.   0.005000       0.00       0.0         0.       0.000      0.000
 J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
       3.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
 31-AUG-87     00:11:10                                                                    PAGE     6

   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.770
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    11.77       3.12    1779.12       0.00       0.00    1779.16       0.05       0.00       0.00    1780.00
 10200.          0.    10200.          0.          0.       5739.          0.          0.          0.    1780.00
     0.00       0.00       1.78       0.00       0.080      0.080      0.080      0.000    1776.00    2316.22
 0.005070          0.         0.         0.         0          0          5       0.00    3684.05    6000.27

1
 FLOW DISTRIBUTION FOR SECNO=     11.77          CWSEL=   1779.12

 STA=    2316.     6730.
  PER Q=    100.0
   AREA=   5738.8
    VEL=      1.8

1
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 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************
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T1        CORECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 11.77 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.        5.         0.         0.   0.005000       0.00       0.0        0.      0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
 31-AUG-87    00:11:10                                                                          PAGE     8

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XAL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      COPAR      TOPWID      ENDST

 *PROF  4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.770
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    11.77       4.67    1780.67       0.33       0.00    1780.77       0.10       0.00       0.00    1780.00
    32000.       28.      31919.       54.        44.      12629.       85.         0.         0.      1780.00
      0.00       0.63       2.53       0.63     0.080      0.080      0.080      0.000    1776.00    1869.37
 0.004998          0.         0.         0.         0          0          5       0.00    5113.53    6982.90

 FLOW DISTRIBUTION FOR SECNO=     11.77          CWSEL=   1780.67

 STA=     1869.     2000.     6730.     6983.
   PER Q=      0.1       99.7       0.2
    AREA=     43.8   12628.7      84.7
     VEL=      0.6       2.5       0.6

1
 31-AUG-87    00:11:10                                                                          PAGE     9


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section
 SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
      11.770     0.00       0.00       0.00       1776.00    3200.00    1778.02    0.00       1778.05    49.99      1.32       2418.42    452.58
      11.770     0.00       0.00       0.00       1776.00    5900.00    1778.54    0.00       1778.58    50.33      1.55       3816.83    831.62
      11.770     0.00       0.00       0.00       1776.00    10200.00   1779.12    0.00       1779.16    50.70      1.78       5738.79    1432.47
      11.770     0.00       0.00       0.00       1776.00    32000.00   1780.67    0.00       1780.77    49.98      2.53       12757.20   4526.27
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.770	3200.00	1778.02	0.00	0.00	0.00	2391.56	0.00
11.770	5900.00	1778.54	0.52	0.00	0.00	3004.46	0.00
11.770	10200.00	1779.12	0.57	0.00	0.00	3684.05	0.00
11.770	32000.00	1780.67	1.55	0.00	0.00	5113.53	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.97 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.080    0.050    0.050      0.1      0.3
QT       4    2200     3800     6000    15400
ET                              7.1      7.1              3000
X1 11.97         8     5670     6870                                        15
X2
GR1788.0     1470  1785.0     2000  1784.0     2750  1783.0     5670  1782.0     6060
GR1784.0     6870  1785.0     6920  1786.0     7270
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.97 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.97 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 11.97 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1

ER
EOF..
```

228

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  28-DEC-87 TIME   02:07:50          *
 *************************************************
```


```
*************************************
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
*************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1       CORECO/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       Overflow Cross Section 11.87 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        2.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000   0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.030     0.050     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  2200.000  3900.000  6900.000 15400.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     0.000     0.000     7.100     7.100     0.000  3000.000     0.000     0.000     0.000
X1     11.970     8.000  5670.000  6870.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1788.000  1470.000  1785.000  2000.000  1784.000  2750.000  1783.000  5670.000  1782.000  6060.000
GR   1784.000  6870.000  1785.000  6920.000  1786.000  7270.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
```

Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 11.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.97	1.60	1783.60	0.00	0.00	1783.66	0.05	0.00	0.00	1783.00
2200.	314.	1886.	0.	531.	950.	0.	0.	0.	1784.00
0.00	0.59	1.98	0.00	0.080	0.050	0.050	0.000	1782.00	3909.52
0.005023	0.	0.	0.	0	0	6	0.00	2799.66	6709.18

FLOW DISTRIBUTION FOR SECNO= 11.97 CWSEL= 1783.60

STA=	3910.	5670.	6870.
PER Q=	14.3	85.7	
AREA=	530.6	950.4	
VEL=	0.6	2.0	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.97 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 11.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

11.97	1.90	1783.90	0.00	0.00	1783.96	0.06	0.00	0.00	1783.00
3800.	920.	2890.	0.	1187.	1279.	0.	0.	0.	1784.00
0.00	0.78	2.25	0.00	0.080	0.050	0.050	0.000	1782.00	3836.94
0.005040	0.	0.	0.	0	0	5	0.00	3793.26	6830.20

FLOW DISTRIBUTION FOR SECNO= 11.97 CWSEL= 1783.90

```
 STA=     3037.     5670.     6870.
   PER Q=     24.2      75.8
    AREA=   1187.0    1279.0
     VEL=      0.8       2.3

1
  28-DEC-87     02:07:50                                                    PAGE     5


 **********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **********************************************

 T1         CCRECD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 11.97 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q         WSEL      FQ

      -10.        4.        0.        0.  0.005000       0.00      0.0        0.      0.000     0.000

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC     IBW       CHNIM     ITRACE

       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  28-DEC-87     02:07:50                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 11.970
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

 3470 ENCROACHMENT STATIONS=     3000.0     7270.0  TYPE=      1  TARGET=    -3000.000
     11.97      2.17   1784.17      0.33   1783.60   1784.24      0.07      0.00      0.00   1783.00
     6000.      1968.     4032.        0.     1894.     1595.        1.        0.        0.   1784.00
      0.00      1.04      2.53      0.40     0.080     0.050     0.050     0.000   1782.00   3000.00
 0.004951         0.        0.        0.         0         0        20      0.00   3878.33   6878.33
3
 FLOW DISTRIBUTION FOR SECNO=     11.97          CWSEL=   1784.17

 STA=     3000.     5670.     6870.     6878.
   PER Q=     32.8      67.2       0.0
    AREA=   1893.6    1594.8       0.7
     VEL=      1.0       2.5       0.4

1
  28-DEC-87     02:07:50                                                    PAGE     7


 **********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
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ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 11.97 - Normal Depth

	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
J1	-10.	5.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
J2	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 11.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3470 ENCROACHMENT STATIONS= 3000.0 7270.0 TYPE= 1 TARGET= -3000.000

11.97	2.94	1784.94	0.00	1783.60	1785.06	0.12	0.00	0.00	1763.00	
15400.	6721.	9651.	28.	3951.	2524.	22.	0.	0.	1784.00	
0.00	1.70	3.43	1.26	0.080	0.050	0.050	0.000	1782.00	3000.00	
0.004935	0.	0.	0.	0	0	19	0.00	3917.04	6917.04	

FLOW DISTRIBUTION FOR SECNO= 11.97 CWSEL= 1784.94

STA=	3000.	5670.	6870.	6917.
PER Q=	43.6	56.2	0.2	
AREA=	3961.0	2524.0	22.1	
VEL=	1.7	3.4	1.3	

1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K

11.970	0.00	0.00	0.00	1782.00	2200.00	1783.60	0.00	1783.66	50.23	1.98	1480.97	310.42
11.970	0.00	0.00	0.00	1782.00	3800.00	1783.90	0.00	1783.96	50.40	2.25	2465.99	535.26
11.970	0.00	0.00	0.00	1782.00	6000.00	1784.17	0.00	1784.24	49.51	2.53	3489.14	852.70
11.970	0.00	0.00	0.00	1782.00	15400.00	1784.94	0.00	1785.06	49.35	3.43	6507.08	2192.28

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.970	2200.00	1783.60	0.00	0.00	0.00	2799.66	0.00
11.970	3800.00	1783.90	0.30	0.00	0.00	3793.26	0.00
11.970	6000.00	1784.17	0.26	0.00	0.56	3876.33	0.00
11.970	15400.00	1784.94	0.77	0.00	1.34	3917.04	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -   50,51,52,53,54,55
**************************************************
```

EOF..

```
3
12  ************************************************
12  STA 2000 IS LOCATED ON MAP WITH TIC MARK
12  ************************************************
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 12
J1             2                  0.0238                                  1975
J2     1                -1
J3   150
NC 0.123   0.123    0.123
JT     2    1500     12000
K1    12       7      2630      3130
GR  1975    2000   1972.5      2630      1970      3130      1975      3300      1980      3480
GR  1985    3860     1990      4370
EJ
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 12
J1             3                  0.0238                                  1975
J2    15                -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:46:59          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 12

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     G         WSEL      FQ
        0.        2.        0.        0.  0.023800      0.00      0.0       0.  1975.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.123     0.123     0.123     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      2.000  1500.000 12000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
        ***************************************************
        STA 2300 IS LOCATED ON MAP WITH TIC MARK
        ***************************************************
X1     12.000     7.000  2630.000  3130.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1975.000  2000.000  1972.500  2630.000  1970.000  3130.000  1975.000  3300.000  1980.000  3480.000
GR   1985.000  3860.000  1990.000  4370.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 12.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

12.00	2.45	1972.45	0.00	1975.00	1972.52	0.07	0.00	0.00	1972.50
1500.	0.	1282.	218.	0.	601.	102.	0.	0.	1970.00
0.00	0.00	2.13	2.13	0.123	0.123	0.123	0.000	1970.00	2639.77
0.023787	0.	0.	0.	0	0	6	0.00	573.57	3213.34

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Charlston Overflow X-Sec. 12

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.023800	0.00	0.0	0.	1975.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 12.000
3280 CROSS SECTION 12.00 EXTENDED 0.04 FEET

STA 2000 IS LOCATED ON MAP WITH TIC MARK

12.00	5.04	1975.04	0.00	1975.00	1975.31	0.27	0.00	0.00	1972.50
12000.	1819.	8667.	1514.	816.	1897.	433.	0.	0.	1970.00
0.00	2.23	4.57	3.50	0.123	0.123	0.123	0.000	1970.00	2000.00
0.024150	0.	0.	0.	0	0	3	0.00	1301.61	3301.61

18-FEB-88 15:47:01 PAGE 5

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

     Charlston  Overflow
SUMMARY PRINTOUT TABLE  150

      SECNO       XLCH       ELTRD      ELLC       ELMIN       Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     12.000       0.00       0.00       0.00     1970.00    1500.00    1972.45       0.00    1972.52     237.87       2.13     702.96     97.26
     12.000       0.00       0.00       0.00     1970.00   12000.00    1975.04       0.00    1975.31     241.50       4.57    3145.78    772.13

1
 18-FEB-88     15:47:01                                                                                                          PAGE     6

     Charlston  Overflow
SUMMARY PRINTOUT TABLE  150

      SECNO         Q          CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
     12.000     1500.00     1972.45       0.00       0.00      -2.55      573.57      0.00
     12.000    12000.00     1975.04       2.59       0.00       0.04     1301.61      0.00

1
 18-FEB-88     15:47:01                                                                                                          PAGE     7


 SUMMARY OF ERRORS AND SPECIAL NOTES

1
 18-FEB-88     15:47:18                                                                                                          PAGE     1


**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************


EOF..
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```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.16 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.080    0.050    0.050      0.1       0.3
ST       4    2200     3800     6000     15400
ET                                  7.1                2900
X1 12.16         7    5230     7050
X2                                                                                  15
GR1791.0     1830   1790.0     2000   1787.0     5230   1786.5     7050   1789.0     7440
GR1790.0     7520   1792.0     7950
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.16 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.16 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.16 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1

ER
EOF..
```

225

1 **
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 28-DEC-87 TIME 01:53:23 *
****

****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
****


```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X         X     X              X     X
X     X  X         X                    X     X
XXXXXXX  XXXX      X           XXXXX    XXXXX
X     X  X         X                    X
X     X  X         X     X              X
X     X  XXXXXXX   XXXXX                XXXXXXX
```

1
28-DEC-87 01:53:24 PAGE 1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECO/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.16 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.080	0.050	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	4.000	2200.000	3800.000	6000.000	15400.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	7.100	0.000	2500.000	0.000	0.000	0.000
X1	12.160	7.000	5230.000	7050.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1791.000	1830.000	1790.000	2000.000	1787.000	5230.000	1788.500	7050.000	1789.000	7440.000
GR	1790.000	7520.000	1792.000	7850.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
28-DEC-87 01:53:24 PAGE 2

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	WLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST	

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.16	1.24	1788.24	0.00	0.00	1788.26	0.03	0.00	0.00	1787.00
2200.	785.	1415.	0.	821.	926.	0.	0.	0.	1788.50
0.00	0.96	1.53	0.00	0.000	0.050	0.050	0.000	1787.00	3900.07
0.005033	0.	0.	0.	0	0	5	0.00	2828.68	6728.75

FLOW DISTRIBUTION FOR SECNO= 12.16 CWSEL= 1788.24

STA=	3900.	5230.	7050.
PER Q=	35.7	64.3	
AREA=	821.3	925.6	
VEL=	1.0	1.5	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.16 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	WLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.16	1.52	1788.52	0.00	0.00	1788.55	0.04	0.00	0.00	1787.00
3800.	1350.	2450.	0.	1236.	1393.	0.	0.	0.	1788.50
0.00	1.09	1.76	0.32	0.000	0.050	0.050	0.000	1787.00	3598.70
0.005008	0.	0.	0.	0	0	6	0.00	3463.10	7061.91

FLOW DISTRIBUTION FOR SECNO= 12.16 CWSEL= 1788.52

```
 STA=     3599.     5230.     7050.
   PER Q=     35.5      64.5
    AREA=   1235.8    1392.5
     VEL=      1.1       1.8

1
  28-DEC-87     01:53:24                                                                    PAGE     5


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1         CCRFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 12.16 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL      FQ
      -10.        4.         0.        0.  0.005000       0.00       0.0         0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  28-DEC-87     01:53:24                                                                    PAGE     6


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

  *PROF 3

  CCHV=   0.100  CEHV=   0.300
  *SECNO 12.160
  2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
      12.16      1.77   1788.77      0.10      0.00   1788.82      0.05      0.00      0.00   1787.00
       6000.      2039.      3946.       15.      1678.      1848.       28.         0.         0.   1788.50
        0.00      1.22       2.13      0.55     0.000      0.05     0.050     0.000   1787.00   3329.01
   0.005053         0.         0.         0.         0          0         5      0.00   3928.18   7257.19
0
  FLOW DISTRIBUTION FOR SECNO=     12.16          CWSEL=   1788.77

  STA=     3329.     5230.     7050.     7257.
    PER Q=     34.0      65.8       0.3
     AREA=   1678.2    1848.4      27.5
      VEL=      1.2       2.1       0.5

1
  28-DEC-87     01:53:24                                                                    PAGE     7


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
```

```
T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.16 - Normal Depth

J1  ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.        5.         0.         0.   0.005000        0.00       0.0         0.      0.000      0.000
J2  NPROF       IPLOT      PRFVS      XSECV      XSECH      FN         ALLOC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        ARCH       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNP        WTN        ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

*PROF 4

CCHV=   0.100  CEHV=   0.300
*SECNO 12.160
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3470 ENCROACHMENT STATIONS=     2900.0     7850.0   TYPE=      1   TARGET=    -2900.000
    12.16       2.48    1789.48       0.00    1788.24    1789.59       0.10       0.00       0.00    1787.00
 15400.       5359.       9546.        495.       3265.       3155.        295.          0.          0.    1788.50
     0.00       1.64       3.03       1.58       0.080      0.050      0.050      0.000    1787.00    2900.00
 0.004977         0.         0.         0.          0          0         20       0.00    4578.68    7478.68

FLOW DISTRIBUTION FOR SECNO=     12.16          CWSEL=   1789.48

STA=     2900.     5230.     7050.     7440.     7479.
  PER Q=     34.8      62.0       3.2       0.0
  AREA=   3265.5    3155.0     286.1       9.3
   VEL=      1.6       3.0       1.7       0.8
```



```
  ************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

  Overflow Cross Section

SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     12.160      0.00       0.00       0.00    1787.00    2200.00    1788.24       0.00    1788.26      50.33       1.53    1746.86     310.11
```

12.150	0.00	0.00	0.00	1787.00	3800.00	1788.52	0.00	1788.55	50.08	1.76	2628.46	536.98
12.150	0.00	0.00	0.00	1787.00	6000.00	1788.77	0.00	1788.82	50.53	2.13	3554.17	844.06
12.150	0.00	0.00	0.00	1787.00	15400.00	1789.48	0.00	1789.59	49.77	3.03	6715.90	2182.94

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.150	2200.00	1788.24	0.00	0.00	0.00	2828.68	0.00
12.150	3800.00	1788.52	0.28	0.00	0.00	3463.10	0.00
12.150	6000.00	1788.77	0.25	0.00	0.00	3928.18	0.00
12.150	15400.00	1789.48	0.72	0.00	1.25	4578.68	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth
J1       0         2                    0.0053
J2       1                  -1
J3     150
NC 0.050    0.060    0.050      0.1       0.3
ST       4    2200     3800     6000    15400
X1 12.35         5     2240     6160
X2                                                                      15
GR1800.0     2000  1795.0     2240  1792.5     4900  1795.0     6160  1800.0     6900
EJ
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth
J1     -10         3                    0.0053
J2       2                  -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth
J1     -10         4                    0.0053
J2       3                  -1
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth
J1     -10         5                    0.0053
J2      15                  -1
```

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ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:11:55          *
 *************************************************
```


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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X     X
XXXXXXX  XXXX      X           XXXXX  XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX    XXXXX            XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.35 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.005300      0.00      0.0       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.050     0.060     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       4.000  2200.000  3900.000  6000.000 15400.000     0.000     0.000     0.000     0.000     0.000
X1      12.350     5.000  2240.000  6160.000     0.000     0.000     0.000     0.000     0.000     0.000
X2       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR    1800.000  2000.000  1795.000  2240.000  1792.500  4900.000  1795.000  6160.000  1800.000  6900.000
EJ       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.350
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.35	1.31	1793.81	0.00	0.00	1793.85	0.04	0.00	0.00	1795.00
2200.	0.	2200.	0.	0.	1348.	0.	0.	0.	1795.00
0.00	0.00	1.63	0.00	0.050	0.050	0.060	0.000	1752.50	3504.67
0.005293	0.	0.	0.	0	0	6	0.00	2056.28	5560.95

FLOW DISTRIBUTION FOR SECNO= 12.35 CWSEL= 1793.81

STA= 3505. 6160.
PER Q= 100.0
AREA= 1348.2
VEL= 1.6

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.35 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005300	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.350
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.35	1.61	1794.11	0.00	0.00	1794.17	0.05	0.00	0.00	1795.00
3800.	0.	3800.	0.	0.	2045.	0.	0.	0.	1795.00
0.00	0.00	1.86	0.00	0.050	0.050	0.060	0.000	1792.50	3181.65
0.005200	0.	0.	0.	0	0	4	0.00	2532.30	5713.96

FLOW DISTRIBUTION FOR SECNO= 12.35 CWSEL= 1794.11

STA= 3182. 6160.

PER Q= 100.0
AREA= 2044.8
VEL= 1.9

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECO/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.35 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	3.	0.	0.005300	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 12.350
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.35	1.92	1794.42	0.00	0.00	1794.48	0.07	0.00	0.00	1795.00
6000.	0.	6000.	0.	0.	2880.	0.	0.	0.	1795.00
0.00	0.00	2.08	0.00	0.050	0.050	0.060	0.000	1752.59	2860.84
0.005203	0.	0.	0.	0	0	4	0.00	3005.08	5865.92

FLOW DISTRIBUTION FOR SECNO= 12.35 CWSEL= 1794.42

STA= 2861. 6160.
PER Q= 100.0
AREA= 2879.6
VEL= 2.1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

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T1         CORECD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.35 - Normal Depth

J1   ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       -10.        5.         0.         0.   0.005300       0.00       0.0        0.         0.000      0.000
J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
      15.000     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XAL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST

 *PROF 4

 CCHV=    0.100  CEHV=    0.300
 *SECNO 12.350
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     12.35       2.68    1795.18       0.30       0.00    1795.30       0.12       0.00       0.00    1795.00
   15400.          0.      15399.         1.         1.      5602.         2.         0.         0.    1795.00
      0.00       0.43       2.75       0.36      0.050      0.050      0.060      0.000    1792.50    2231.40
  0.005313          0.         0.         0.          0          0          6       0.00    3955.12    6186.52

 FLOW DISTRIBUTION FOR SECNO=      12.35          CWSEL=    1795.18

 STA=     2231.     2240.     6160.     6187.
   PER Q=     0.0     100.0       0.0
    AREA=     0.8    5602.5       2.4
     VEL=     0.4       2.7       0.4

1
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 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section
 SUMMARY PRINTOUT TABLE  150

       SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
       12.350     0.00       0.00       0.00    1792.50    2200.00    1793.81       0.00    1793.85      52.93      1.63    1348.18     302.39
       12.350     0.00       0.00       0.00    1792.50    3800.00    1794.11       0.00    1794.17      52.00      1.86    2044.82     526.98
       12.350     0.00       0.00       0.00    1792.50    6000.00    1794.42       0.00    1794.48      52.03      2.08    2879.62     831.83
       12.350     0.00       0.00       0.00    1792.50   15400.00    1795.18       0.00    1795.30      53.13      2.75    5605.61    2112.81
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.350	2200.00	1793.81	0.00	0.00	0.00	2056.28	0.00
12.350	3800.00	1794.11	0.30	0.00	0.00	2532.30	0.00
12.350	6000.00	1794.42	0.30	0.00	0.00	3005.08	0.00
12.350	15400.00	1795.18	0.76	0.00	0.00	3955.12	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.58 - Normal Depth
J1       0        2                    0.0053
J2       1                -1
J3     150
NC 0.050    0.050    0.050      0.1      0.3
ST       4     2200     3800     6000    15400
X1  12.58        5     2170     5830
X2                                                                          15
GR1805.0     2000  1800.0     2170  1796.8     3530  1800.0     5830  1803.0     6210
EJ
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.58 - Normal Depth
J1     -10       3                    0.0053
J2       2                -1
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.58 - Normal Depth
J1     -10       4                    0.0053
J2       3                -1
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.58 - Normal Depth
J1     -10       5                    0.0053
J2      15                -1


ER
OF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:12:09          *
 *************************************************
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```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.58 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        2.        0.        0.  0.005300      0.00      0.0       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.050     0.050     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  2200.000  3900.000  6000.000 15400.000     0.000     0.000     0.000     0.000     0.000
X1     12.580     5.000  2170.000  5830.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1805.000  2003.000  1800.000  2170.000  1796.800  3530.000  1800.000  5830.000  1803.000  6210.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
```

SLOPE XLOBL XLCH XLOBR ITRIAL IDC ICONT CORAR TOPWID ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.580
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.58	1.48	1798.28	0.00	0.00	1799.32	0.05	0.00	0.00	1800.00
2200.	0.	2200.	0.	0.	1245.	0.	0.	0.	1800.00
0.00	0.00	1.77	0.00	0.050	0.050	0.050	0.000	1796.80	2902.92
0.005305	0.	0.	0.	0	0	6	0.00	1687.59	4590.51

FLOW DISTRIBUTION FOR SECNO= 12.58 CWSEL= 1798.28

STA= 2903. 5830.
PER C= 100.0
AREA= 1244.9
VEL= 1.8

1
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****
HEC2 RELEASE DATED NOV 76 LEDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.58 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005300	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.580
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.58	1.81	1798.61	0.00	0.00	1798.67	0.06	0.00	0.00	1800.00
3800.	0.	3800.	0.	0.	1872.	0.	0.	0.	1800.00
0.00	0.00	2.03	0.00	0.050	0.050	0.050	0.000	1796.80	2761.02
0.005331	0.	0.	0.	0	0	6	0.00	2069.45	4830.47

FLOW DISTRIBUTION FOR SECNO= 12.58 CWSEL= 1798.61

STA= 2761. 5830.

PER Q= 100.0
AREA= 1272.2
VEL= 2.0

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.58 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	0.	0.	0.005300	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 12.580
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.58	2.15	1798.95	0.30	0.00	1799.03	0.08	0.00	0.00	1800.00
6000.	0.	6000.	0.	0.	2634.	0.	0.	0.	1800.00
0.00	0.00	2.28	0.00	0.050	0.050	0.050	0.000	1756.80	2617.83
0.005346	0.	0.	0.	0	0	6	0.00	2454.80	5072.63

FLOW DISTRIBUTION FOR SECNO= 12.58 CWSEL= 1798.95

STA= 2618. 5830.
PER Q= 100.0
AREA= 2634.3
VEL= 2.3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

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T1         CCRECD/CDE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         Overflow Cross Section 12.58 - Normal Depth

J1   ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       -10.        5.         0.         0.   0.005300       0.00       0.0        0.         0.000      0.000

J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
      15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XAL        XNCH       XNR        WTN        ELMIN      SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

  *PROF 4

  CCHV=   0.100  CEHV=   0.300
  *SECNO 12.580
  2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
      12.58       3.06    1799.86       0.00       0.00    1799.99       0.13       0.00       0.00    1800.00
    15400.         0.      15400.         0.         0.       5359.         0.         0.         0.    1800.00
       0.00       0.00       2.87       0.00      0.050      0.050      0.050      0.000    1796.80    2229.04
   0.005301         0.         0.         0.          0          0          5       0.00    3501.11    5730.15
  FLOW DISTRIBUTION FOR SECNO=     12.58          CWSEL=   1799.86
  STA=     2229.      5830.
    PER Q=    100.0
     AREA=   5358.5
      VEL=      2.9
```



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  ********************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -   50,51,52,53,54,55
  ********************************************

  NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

    Overflow Cross Sectior

  SUMMARY PRINTOUT TABLE  150

       SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
       12.580     0.00       0.00       0.00       1796.80    2200.00    1798.28    0.00       1798.32    53.05      1.77       1244.88    302.05
       12.580     0.00       0.00       0.00       1796.80    3800.00    1798.61    0.00       1798.67    53.31      2.03       1872.15    520.45
       12.580     0.00       0.00       0.00       1796.80    6000.00    1798.95    0.00       1799.03    53.46      2.28       2634.30    820.63
       12.580     0.00       0.00       0.00       1796.80   15400.00    1799.86    0.00       1799.99    53.01      2.87       5358.51    2115.07
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.580	2200.00	1798.28	0.00	0.00	0.00	1687.59	0.00
12.580	3800.00	1798.61	0.33	0.00	0.00	2069.45	0.00
12.580	6000.00	1798.95	0.34	0.00	0.00	2454.80	0.00
12.580	15400.00	1799.86	0.91	0.00	0.00	3501.11	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.76 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1        0.3
QT       4     2200     3800     6000      15400
K1 12.76         5     2500     5880
K2                                                                        15
GR1810.0     2000  1805.0     2500  1802.5     3920  1805.0     5680  1810.0     5980
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.76 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.76 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.76 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1


ER
EOF..
```

```
1*************************************************
*  WATER SURFACE PROFILES                       *
*  VERSION OF NOVEMBER 1976                     *
*  UPDATED AUGUST 1983                          *
*                                               *
*  RUN DATE  31-AUG-87 TIME   00:12:24          *
*************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X          XXXXX   XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX    XXXXX            XXXXXXX
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.76 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

      0.         2.         0.         0.  0.005000       0.00       0.0        0.         0.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

    1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000    0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.050      0.050      0.050      0.100      0.300      0.000      0.000      0.000      0.000      0.000
OT      4.000   2200.000   3800.000   6000.000  15400.000      0.000      0.000      0.000      0.000      0.000
X1     12.760      5.000   2500.000   5880.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   1810.000   2000.000   1805.000   2500.000   1802.500   3920.000   1805.000   5880.000   1810.000   5980.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.760
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.76	1.41	1803.91	0.00	0.00	1803.95	0.04	0.00	0.00	1805.00
2200.	0.	2200.	0.	0.	1336.	1.	0.	0.	1805.00
0.00	0.00	1.65	0.00	0.050	0.050	0.050	0.000	1802.50	3121.60
0.004917	0.	0.	0.	0	0	5	0.00	1900.42	5022.02

FLOW DISTRIBUTION FOR SECNO= 12.76 CWSEL= 1803.91

STA= 3122. 5880.
PER Q= 100.0
AREA= 1335.5
VEL= 1.6

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.76 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.760
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.76	1.72	1804.22	0.00	0.00	1804.28	0.06	0.00	0.00	1805.00
3800.	0.	3800.	0.	0.	2000.	0.	0.	0.	1805.00
0.00	0.00	1.90	0.00	0.050	0.050	0.050	0.000	1802.50	2942.99
0.004998	0.	0.	0.	0	0	4	0.00	2325.57	5268.55

FLOW DISTRIBUTION FOR SECNO= 12.76 CWSEL= 1804.22

STA= 2943. 5880.

PER Q= 1090.0
AREA= 2000.0
VEL= 1.9


```
**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**********************************************

T1       CCRECD/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       Overflow Cross Section 12.76 - Normal Depth

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
     -10.       4.        1.        0.  0.005000      0.00      0.2       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

*PROF 3

CCHV=   0.100  CEHV=   0.300
*SECNO 12.760
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    12.76      2.04   1804.54      0.00      0.00   1804.61      0.07      0.00      0.00   1805.00
    6000.        0.      6000.       0.        0.      2813.       0.        0.        0.    1805.00
     0.00      0.00      2.13      0.00     0.050     0.050     0.050     0.000  1802.50   2761.33
 0.005019        0.        0.        0.         0         0         5      0.00  2757.97   5819.29

FLOW DISTRIBUTION FOR SECNO=     12.76          CWSEL=   1804.54

STA=    2761.     5880.
  PER Q=    100.0
   AREA=   2812.8
    VEL=      2.1
```



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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**********************************************
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```
T1        CCRECD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 12.76 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
     -10.        5.         0.         0.   0.005000        0.00       0.0        0.      0.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.001     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
   Q          OLOB       OCH        QROB       ALOB       ACH        ARCP       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 *PROF 4

 CCHV=   0.100  CEHV=   0.300
 *SECNO 12.760
 2096 WSEL NOT GIVEN.AVG OF MAX.MIN USED
    12.76       2.84    1805.34       0.00       0.00    1805.47       0.13       0.00       0.00    1805.00
   15400.         4.      15396.         1.         6.       5374.         1.         0.         0.     1805.00
     9.00       0.65       2.86       0.54      0.050      0.050      0.050      0.000    1802.50    2466.00
 0.005007         0.         0.         0.          0          0          6       0.00    3420.80    5886.80

 FLOW DISTRIBUTION FOR SECNO=     12.76          CWSEL=   1805.34

 STA=    2466.     2500.     5880.     5887.
   PER Q=       0.0     100.0       0.0
    AREA=       5.8    5374.1       1.2
     VEL=       0.6       2.9       0.6
```



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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   Overflow Cross Section

 SUMMARY PRINTOUT TABLE  150

      SECNO       XLCH       ELTRD      ELLOC      ELMIN          Q       CWSEL      CRIWS      EG        10K*S      VCH       AREA      .01K
     12.760       0.00       0.00       0.00    1802.50    2200.00    1803.91       0.00    1803.95     49.17     1.65    1335.54    313.74
     12.760       0.00       0.00       0.00    1802.50    3800.00    1804.22       0.00    1804.28     49.98     1.90    1999.95    537.52
     12.760       0.00       0.00       0.00    1802.50    6000.00    1804.54       0.00    1804.61     50.18     2.13    2812.84    847.03
     12.760       0.00       0.00       0.00    1802.50   15400.00    1805.34       0.00    1805.47     50.07     2.86    5381.02   2176.43
```

Overflow Cross Section

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.750	2200.00	1803.91	0.00	0.00	0.00	1900.42	0.00
12.760	3800.00	1804.22	0.31	0.00	0.00	2325.57	0.00
12.760	6000.00	1804.54	0.32	0.00	0.00	2757.97	0.00
12.760	15400.00	1805.34	0.80	0.00	0.00	3420.80	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.97 - Normal Depth
J1       0          2                    0.0067
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1       0.3
QT       4    2200     3800     6000     15400
X1  12.97          7     3490     4500
X2                                                                                  15
GR1817.0     2000   1815.0     2310   1810.0     3490   1808.5     4010   1810.0     4500
GR1815.0     5250   1816.0     5310
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.97 - Normal Depth
J1    -10          3                    0.0067
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.97 - Normal Depth
J1    -10          4                    0.0067
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 12.97 - Normal Depth
J1    -10          5                    0.0067
J2      15                    -1
```

```
ER
EOF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:12:38          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X            X      X
X     X  X        X                  X      X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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 **********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **********************************************

 T1         CCRFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         Overflow Cross Section 12.97 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q         WSEL      FQ

        0.        2.        0.        0.  0.006700      0.00      0.0       0.      0.000     0.000

 J2  NPROF      IPLOT     PRFVS     XSECV      XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


 NC       0.050     0.050     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
 QT       4.000  2200.000  3600.000  6000.000 15400.000     0.000     0.000     0.000     0.000     0.000
 X1      12.970     7.000  3450.000  4500.000     0.000     0.000     0.000     0.000     0.000     0.000
 X2       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
 GR    1817.000  2000.000  1815.000  2310.000  1810.000  3490.000  1808.500  4010.000  1810.000  4500.000
 GR    1815.000  5250.000  1816.000  5310.000     0.000     0.000     0.000     0.000     0.000     0.000
 EJ       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
  31-AUG-87     00:12:39                                                                    PAGE     2

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 12.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.97	1.69	1810.19	0.00	0.00	1810.27	0.08	0.00	0.00	1810.00
2200.	2.	2197.	1.	4.	945.	3.	0.	0.	1810.00
0.00	0.50	2.32	0.50	0.050	0.050	0.050	0.000	1808.50	3446.15
0.006681	0.	0.	0.	0	0	4	0.00	1981.72	4527.87

FLOW DISTRIBUTION FOR SECNO= 12.97 CWSEL= 1810.19

STA=	3446.	3490.	4500.	4528.
PER Q=	0.1	99.8	0.1	
AREA=	4.1	945.1	2.6	
VEL=	0.5	2.3	0.5	

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.97 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	0.	0.	0.006700	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 12.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.97	2.04	1810.54	0.00	0.00	1810.66	0.13	0.00	0.00	1810.00
3800.	34.	3744.	22.	34.	1300.	22.	0.	0.	1810.00
0.00	1.01	2.88	1.01	0.050	0.050	0.050	0.000	1808.50	3363.27
0.006709	0.	0.	0.	0	0	5	0.00	1217.28	4580.55

FLOW DISTRIBUTION FOR SECNO= 12.97 CWSEL= 1810.54

STA= 3363. 3490. 4500. 4581.
PER G= 0.9 98.5 0.6
AREA= 34.0 1299.9 21.5
VEL= 1.0 2.9 1.0

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 12.97 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	4.	2.	0.	0.006700	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 12.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

12.97	2.42	1810.92	0.00	0.00	1811.09	0.18	0.00	0.00	1810.00
6000.	143.	5766.	91.	99.	1682.	63.	0.	0.	1810.00
0.00	1.45	3.43	1.45	0.050	0.050	0.050	0.000	1808.50	3274.02
0.006742	0.	0.	0.	0	0	5	0.00	1363.25	4637.27

FLOW DISTRIBUTION FOR SECNO= 12.97 CWSEL= 1810.92

STA= 3274. 3490. 4500. 4637.
PER Q= 2.4 96.1 1.5
AREA= 98.8 1681.8 62.8
VEL= 1.4 3.4 1.4

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

```
I1        CORECO/COE OVERFLOW STUDY
I2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
I3        Overflow Cross Section 12.97 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.       5.         0.         0.   0.006700       0.00       0.0        0.       0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 4

CCHV=   0.100  CEHV=   0.300
*SECNO 12.970
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    12.97      3.52   1812.02      0.00      0.00   1812.35      0.33      0.00      0.00   1810.00
 15400.      1135.     13461.      753.      483.      2801.      307.        0.        0.   1810.00
     0.00      2.45      4.81      2.45     0.050     0.050     0.050     0.000   1808.50   3012.44
 0.006708       0.        0.        0.         0         0         5      0.00   1791.09   4803.53

FLOW DISTRIBUTION FOR SECNO=     12.97          CWSEL=   1812.02

STA=    3012.     3490.     4500.     4804.
  PER G=      7.7      87.4       4.9
   AREA=    483.2    2801.3     307.1
    VEL=      2.5       4.8       2.5
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

  Overflow Cross Section
SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD      ELLC      ELMIN        Q         CWSEL      CRIWS      EG        10K*S      VCH       AREA      .01K
      12.970     0.00      0.00       0.00     1808.50    2200.00    1810.19      0.00     1810.27    66.81      2.32      951.81    269.15
      12.970     0.00      0.00       0.00     1808.50    3800.00    1810.54      0.00     1810.66    67.08      2.88     1355.50    463.97
      12.970     0.00      0.00       0.00     1808.50    6000.00    1810.92      0.00     1811.09    67.42      3.43     1843.43    730.73
      12.970     0.00      0.00       0.00     1808.50   15400.00    1812.02      0.00     1812.35    67.08      4.81     3591.54   1880.23
```

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.970	2200.00	1810.19	0.00	0.00	0.00	1081.72	0.00
12.970	3800.00	1810.54	0.35	0.00	0.00	1217.28	0.00
12.970	6000.00	1810.92	0.38	0.00	0.00	1363.25	0.00
12.970	15400.00	1812.02	1.11	0.00	0.00	1791.09	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:47:45          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X            X     X
X      X  X         X                  X     X
XXXXXXXX  XXXX      X          XXXXX    XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX    XXXXX             XXXXXXX
```

1
18-FEB-88 15:47:46


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

```
C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.012600	0.00	0.0	0.	1850.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.123	0.123	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	7200.000	10000.000	12500.000	17000.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.103	7.100	7.100	0.000	2000.000	8640.000	0.000	0.000

```
**************************************************
STA 2000 IS LOCATED ON MAP WITH TIC MARK
**************************************************
```

X1	13.000	38.000	4340.000	4356.200	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1854.000	2000.000	1853.000	2400.000	1853.000	2800.000	1850.000	3040.000	1847.000	3450.000
GR	1847.000	3700.000	1846.000	3950.000	1848.000	4340.000	1843.600	4340.100	1843.600	4346.100
GR	1848.000	4346.200	1848.000	4350.000	1843.600	4350.100	1843.600	4356.100	1848.000	4356.200
GR	1847.000	4560.000	1846.000	4820.000	1844.000	5070.000	1846.000	5560.000	1846.000	5720.000

GR	1845.000	5870.000	1846.000	6000.000	1845.000	6100.000	1842.000	6750.000	1845.000	7100.000	
GR	1846.700	7900.000	1850.000	8640.000	1847.700	9180.000	1848.000	9870.000	1850.800	10350.000	
GR	1850.000	10900.000	1851.000	11400.000	1850.000	11770.000	1855.000	12500.000	1854.000	13400.000	
GR	1854.000	13650.000	1855.000	13870.000	1857.000	14040.000	0.000	0.000	0.000	0.000	
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 13.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2000.0 8640.0 TYPE= 1 TARGET= 6640.000

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

13.00	3.90	1845.90	0.00	0.00	1846.01	0.11	0.00	0.00	1548.00
7200.	0.	253.	6947.	0.	28.	3384.	0.	0.	1848.00
0.00	0.00	9.98	2.05	0.123	0.022	0.123	0.000	1842.00	4340.05
0.012581	3.	0.	0.	0	0	7	0.00	2425.43	7469.75

FLOW DISTRIBUTION FOR SECNO= 13.00 CWSEL= 1845.90

STA=	4340.	4356.	5070.	5535.	5870.	5987.	6100.	6750.	7100.	7470.
PER Q=	3.5	4.1	8.3	0.7	0.6	0.4	52.6	28.3	1.8	
AREA=	27.8	225.1	441.3	60.5	52.4	40.3	1558.7	839.3	166.0	
VEL=	9.1	1.3	1.3	0.8	0.8	0.8	2.4	2.4	0.8	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 13

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.012600	0.00	0.0	0.	1850.000	0.000
J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 13.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2000.0 8640.0 TYPE= 1 TARGET= 6640.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

13.00	4.28	1846.28	0.00	1845.90	1846.40	0.12	0.00	0.00	1848.00
10000.	7.	312.	9681.	18.	33.	4427.	0.	0.	1848.00
0.00	0.37	9.60	2.19	0.123	0.022	0.123	0.000	1842.00	3879.05
0.012528	0.	0.	0.	0	0	6	0.00	3020.98	7628.64

FLOW DISTRIBUTION FOR SECNO= 13.00 CWSEL= 1846.28

STA=	3879.	4005.	4356.	5070.	5560.	6100.	6750.	7100.	7629.
PER Q=	0.1	3.1	5.2	10.0	3.7	48.4	26.1	3.4	
AREA=	17.9	32.5	331.4	629.1	343.3	1809.5	974.3	339.3	
VEL=	0.4	9.6	1.6	1.6	1.1	2.7	2.7	1.0	

T1 Clark County, Nevada COE - 100 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 13

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.012600	0.00	0.0	0.	1850.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

*SECNO 13.000

3265 DIVIDED FLOW

```
 3470 ENCROACHMENT STATIONS=     2000.0     8640.0  TYPE=      1  TARGET=     6640.000
             ************************************************
             STA 2000 IS LOCATED ON MAP WITH TIC MARK
             ************************************************
      13.00       4.56  1846.56      0.00  1845.90  1846.69      0.12      0.00      0.00  1848.00
     12500.        41.      358.     12102.      70.       36.     5252.        0.        0.  1848.00
       0.00       0.58      9.96      2.30     0.123     0.022     0.123     0.000   1842.00  3609.71
  0.012576         0.        0.        0.         0         0         6      0.00   3330.73  7742.85
1
 FLOW DISTRIBUTION FOR SECNO=      13.00          CWSEL=   1846.56

 STA=     3810.     4059.     4356.     5070.     5560.     6000.     6750.     7100.     7743.
   PER Q=     0.3       2.9       5.9      11.2       4.0      46.7      24.5       4.6
    AREA=    70.0      35.9     431.2     765.0     386.9    2095.9    1071.4     501.8
     VEL=     0.6      10.0       1.7       1.8       1.3       2.8       2.9       1.1

1
  18-FEB-88    15:47:46                                                              PAGE     7


 ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************

 T1          Clark County, Nevada COE - 500 year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Overflow X-Sec. 13

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q          WSEL      FQ
        0.        5.        0.        0.  0.012600       0.00      0.0       0.  1850.000      0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  18-FEB-88    15:47:46                                                              PAGE     8

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 *PROF 4

 *SECNO 13.000

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=     2000.0     8640.0  TYPE=      1  TARGET=     6640.000
             ************************************************
             STA 2000 IS LOCATED ON MAP WITH TIC MARK
             ************************************************
      13.00       4.98  1846.98      0.00  1845.90  1847.12      0.13      0.00      0.00  1848.00
     17000.        180.      426.     16393.     215.       41.     6597.        0.        0.  1848.00
       0.00       0.84     10.37      2.48     0.123     0.022     0.123     0.000   1842.00  3704.46
  0.012485         0.        0.        0.         0         0         5      0.00   3756.58  7871.84
```

FLOW DISTRIBUTION FOR SECNO= 13.00 CWSEL= 1846.98

STA=	3704.	4142.	4356.	5070.	5560.	5870.	6100.	6750.	7100.	7800.	7872.
PER Q=	1.1	2.5	6.8	12.2	3.5	3.5	41.3	22.2	6.8	0.0	
AREA=	214.6	41.1	621.0	971.3	379.5	340.9	2263.4	1218.8	792.5	10.1	
VEL=	0.8	10.4	1.9	2.1	1.6	1.8	3.1	3.1	1.5	0.4	

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 13

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13.000	0.00	0.00	0.00	1842.00	7200.00	1845.90	0.00	1846.01	125.81	9.08	3411.38	641.90
13.000	0.00	0.00	0.00	1842.00	10000.00	1846.28	0.00	1846.40	125.28	9.60	4477.32	893.44
13.000	0.00	0.00	0.00	1842.00	12500.00	1846.56	0.00	1846.69	125.76	9.96	5358.10	1114.63
13.000	0.00	0.00	0.00	1842.00	17000.00	1846.98	0.00	1847.12	124.85	10.37	6853.20	1521.43

Overflow X-Sec. 13

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
13.000	7200.00	1845.90	0.00	0.00	0.00	2425.43	0.00
13.000	10000.00	1846.28	0.39	0.00	0.39	3020.98	0.00
13.000	12500.00	1846.56	0.28	0.00	0.66	3330.73	0.00
13.000	17000.00	1846.98	0.42	0.00	1.08	3756.58	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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      HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
      ERROR CORR -   01,02,03,04,05
      MODIFICATION -   50,51,52,53,54,55
    ..................................................


EOF..
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```
                3
    13.0  ************************************************
    13.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
    13.0  ************************************************
T1            Clark County, Nevada COE -  25 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 13
J1               2                 0.0126                              1850
J2       1                -1
J3     150
NC  0.123   0.123    0.022
JT       4   7200    10000    12500    17000
ET           7.1      7.1      7.1      7.1          2000     8640
X1      13     38     4340   4356.2
X2                                                                     15.0
GR   1854     2000     1853     2400     1853     2800   1850.0     3040   1847.0     3450
GR   1847     3700     1846     3950     1848     4340   1843.6   4340.1   1843.6   4346.1
GR   1848   4346.2     1848     4350   1843.6   4350.1   1843.6   4356.1     1848   4356.2
GR   1847     4560     1846     4820     1844     5070     1846     5560   1846.0     5720
GR   1845     5870     1846     6000     1845     6100     1842     6750     1845     7100
GR1846.7     7800     1850     8640   1847.7     9180     1848     9870   1850.8    10350
GR   1850    10900     1851    11400     1850    11770     1855    12500     1854    13400
GR   1854    13650     1855    13870     1857    14040
EJ
T1            Clark County, Nevada COE -  50 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 13
J1               3                 0.0126                              1850
J2       2                -1
T1            Clark County, Nevada COE - 100 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 13
J1               4                 0.0126                              1850
J2       3                -1
T1            Clark County, Nevada COE - 500 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 13
J1               5                  0.0126                             1850
J2      15                -1


ER
EOF..
```

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1      0.3
ET       4     2200     3800     6000    15400
X1 13.26         7     4170     5490
X2                                                                        15
GR1828.0     1530  1824.0     1870  1820.0     4170  1818.0     4380  1820.0     5490
GR1825.0     6200  1826.0     6370
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1    -10          5                    0.0050
J2      15                    -1


ER
EOF..
```

```
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1      0.3
QT       4     2200     3900     5000    15400
X1 13.26          7     4170     5490
X2                                                                          15
GR1828.0     1530  1824.0     1870  1820.0     4170  1818.0     4380  1820.0     5490
GR1825.0     6200  1826.0     6370
EJ
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1


ER
EOF..
```

```
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1       0          2                    0.0050
J2       1                    -1
J3     150
NC 0.050    0.050    0.050      0.1       0.3
QT       4     2200     3800     6000     15400
K1 13.26          7     4170     5490
K2                                                                        15
GR1828.0     1530   1824.0     1870   1920.0     4170   1818.0     4380   1820.0     5490
GR1825.0     6200   1826.0     6370
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          3                    0.0050
J2       2                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          4                    0.0050
J2       3                    -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          Overflow Cross Section 13.26 - Normal Depth
J1     -10          5                    0.0050
J2      15                    -1
```

```
ER
EOF..
```

227

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  31-AUG-87 TIME   00:12:53          *
 *************************************************
```


```
*************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX

1
 31-AUG-87    00:12:54                                          PAGE    1
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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1        CCRFCD/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 13.26 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.005000      0.00      0.0       0.     0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
 J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 NC      0.050     0.050     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
 QT      4.000  2200.000  3800.000  6000.000 15400.000     0.000     0.000     0.000     0.000     0.000
 X1     13.260     7.000  4170.000  5490.000     0.000     0.000     0.000     0.000     0.000     0.000
 X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
 GR   1828.000  1530.000  1824.000  1870.000  1820.000  4170.000  1818.000  4380.000  1820.000  5490.000
 GR   1825.000  6200.000  1926.000  6370.000     0.000     0.000     0.000     0.000     0.000     0.000
 EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
 31-AUG-87    00:12:54                                          PAGE    2

    SEC NO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 13.260
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

13.25	1.83	1819.83	0.00	0.00	1819.89	0.06	0.00	0.00	1820.00
2200.	0.	2200.	0.	0.	1110.	0.	0.	0.	1820.00
0.00	0.00	1.98	0.00	0.050	0.050	0.050	0.000	1818.00	4187.44
0.004995	0.	0.	0.	0	0	5	0.00	1210.35	5397.79

FLOW DISTRIBUTION FOR SECNO= 13.26 CWSEL= 1819.83

STA= 4187. 5490.
PER Q= 100.0
AREA= 1109.7
VEL= 2.0

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 Overflow Cross Section 13.26 - Normal Depth

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-10.	3.	3.	0.	0.005000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 13.260
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

13.26	2.21	1820.21	0.00	0.00	1820.30	0.09	0.00	0.00	1820.00
3800.	6.	3792.	2.	13.	1601.	3.	0.	0.	1820.00
0.00	0.47	2.37	0.47	0.050	0.050	0.050	0.000	1818.00	4047.45
0.004908	0.	0.	0.	0	0	4	0.00	1472.82	5520.27

FLOW DISTRIBUTION FOR SECNO= 13.26 CWSEL= 1820.21

```
STA=    4047.     4179.     5490.     5520.
  PER Q=     0.2      99.8       0.3
    AREA=   13.1    1601.3       3.2
     VEL=    0.5       2.4       0.5

1
 31-AUG-87     00:12:54                                                                    PAGE     5


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1        CCRECO/COE OVERFLOW STUDY
 T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3        Overflow Cross Section 13.26 - Normal Depth

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       4.        0.        0.  0.005000      0.00      0.0       0.      0.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
 31-AUG-87     00:12:54                                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       ARCE      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     COPAR     TOPWID       ENDST

 *PROF 3

 CCHV=   0.100  CEHV=   0.300
 *SECNO 13.260
 2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
     13.26      2.57   1820.57      0.00      0.00   1820.69      0.12      0.00      0.00   1820.00
     6000.       85.     5894.       21.       93.     2071.       23.       0.        0.    1820.00
      0.00      0.91      2.85      0.91     0.050     0.050     0.050     0.000   1818.00   3842.84
  0.005030        0.        0.        0.         0         0         5      0.00   1727.95   5570.79

 FLOW DISTRIBUTION FOR SECNO=     13.26          CWSEL=   1820.57

 STA=    3843.     4170.     5490.     5571.
   PER Q=     1.4      98.2       0.3
     AREA=   93.1    2071.0      23.0
      VEL=    0.9       2.8       0.9

1
 31-AUG-87     00:12:54                                                                    PAGE     7


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************
```

```
T1        CCRFCD/CDE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        Overflow Cross Section 13.26 - Normal Depth

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
      -10.       5.         0.         0.   0.005000       0.00       0.0        0.       0.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```


SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCE	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 4

CCHV=   0.100  CEHV=   0.300
*SECNO 13.260
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    13.26       3.61   1821.61       0.00       0.00   1821.83       0.23       0.00       0.00   1820.00
 15400.       1348.      13719.       333.       741.      3439.       183.         0.         0.   1820.00
     0.00       1.82       3.99       1.82      0.050      0.050      0.050      0.000    1818.00   3246.86
0.005024         0.         0.         0.          0          0          5       0.00    2471.12   5717.98

FLOW DISTRIBUTION FOR SECNO=     13.26          CWSEL=   1821.61

STA=    3247.     4170.     5490.     5718.
 PER Q=     8.8      89.1       2.2
  AREA=   741.0    3439.2     183.0
   VEL=     1.8       4.0       1.8
```



```
**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
 ERROR CORR -  01,02,03,04,05
 MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

  Overflow Cross Section

SUMMARY PRINTOUT TABLE  150
```

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13.260	0.00	0.00	0.00	1818.00	2200.00	1819.83	0.00	1819.89	49.95	1.98	1109.73	311.27
13.260	0.00	0.00	0.00	1818.00	3800.00	1820.21	0.00	1820.30	49.08	2.37	1617.62	542.43
13.260	0.00	0.00	0.00	1818.00	6000.00	1820.57	0.00	1820.69	50.30	2.85	2187.07	846.01
13.260	0.00	0.00	0.00	1818.00	15400.00	1821.61	0.00	1821.83	50.24	3.99	4363.26	2172.63

Overflow Cross Section
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
13.260	2200.00	1819.83	0.00	0.00	0.00	1210.35	0.00
13.260	3800.00	1820.21	0.38	0.00	0.00	1472.82	0.00
13.260	6000.00	1820.57	0.36	0.00	0.00	1727.95	0.00
13.260	15400.00	1821.61	1.04	0.00	0.00	2471.12	0.00

SUMMARY OF ERRORS AND SPECIAL NOTES


```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
CCCC      3
C     14.0  ************************************************
C     14.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
C     14.0  ************************************************
T1            Clark County, Nevada COE - 100 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 14
J1               2                    0.0201                          1900
J2       1              -1
J3     150
VC  0.123    0.123    0.123
JT       4     1000     7500
X1    14.0        8     4420     4610
K2                                                                          15.0
GR    1908     2000     1901     3080     1903     3900     1900     4260     1899     4420
GR    1900     4610     1905     6220     1907     6460
EJ
T1            Clark County, Nevada COE - 500 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 14
J1               3                    0.0201                          1900
J2      15             -1


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:48:25          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X           XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX              XXXXXXX
```



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

```
C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 14
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.020100	0.00	0.0	0.	1900.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.123	0.123	0.123	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	1000.000	7500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
**************************************************
  STA 2000 IS LOCATED ON MAP WITH TIC MARK
**************************************************
```

X1	14.000	8.000	4420.000	4610.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1908.000	2000.000	1901.000	3080.000	1903.000	3900.000	1900.000	4260.000	1899.000	4420.000
GR	1900.000	4610.000	1905.000	6228.000	1907.000	6460.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 14.000

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

14.00	1.76	1900.76	0.00	1900.00	1900.81	0.05	0.00	0.00	1899.00
1000.	436.	481.	84.	236.	239.	93.	0.	0.	1900.00
0.00	1.85	2.01	0.90	0.123	0.123	0.123	0.000	1899.00	4168.99
0.020369	0.	0.	0.	0	0	6	0.00	685.22	4854.21

FLOW DISTRIBUTION FOR SECNO= 14.00 CWSEL= 1900.76

STA=	4169.	4260.	4420.	4610.	4854.
PER Q=	3.1	40.5	48.1	8.4	
AREA=	34.5	201.3	239.1	92.6	
VEL=	0.9	2.0	2.0	0.9	

1
18-FEB-88 15:48:26 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 14

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.020100	0.00	0.0	0.	1900.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
18-FEB-88 15:48:26 PAGE 4

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 14.000

3265 DIVIDED FLOW

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK

STA 2900 IS LOCATED ON MAP WITH TIC MARK

14.00	3.52	1902.52	0.00	1900.00	1902.63	0.11	0.00	0.00	1899.00	
7500.	3412.	2050.	2038.	1515.	574.	1021.	0.	0.	1900.00	
0.00	2.25	3.57	2.30	0.123	0.123	0.123	0.000	1899.00	2845.65	
0.020051	0.	0.	0.	0	0	6	0.00	2320.47	5421.09	

FLOW DISTRIBUTION FOR SECNO= 14.00 CWSEL= 1902.52

STA=	2846.	3080.	3703.	4260.	4420.	4610.	5421.
PER Q=	3.4	9.0	10.1	23.0	27.3	27.2	
AREA=	178.3	472.9	380.7	493.0	573.6	1021.5	
VEL=	1.4	1.4	2.0	3.6	3.6	2.3	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 14

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
14.000	0.00	0.00	0.00	1899.00	1000.00	1900.76	0.00	1900.81	203.69	2.01	567.55	70.07
14.000	0.00	0.00	0.00	1899.00	7500.00	1902.52	0.00	1902.63	200.51	3.57	3109.68	529.66

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Overflow X-Sec. 14

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
14.000	1000.00	1900.76	0.00	0.00	0.76	685.22	0.00
14.000	7500.00	1902.52	1.76	0.00	2.52	2320.47	0.00

18-FEB-88 15:48:26 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

18-FEB-88 15:49:02 PAGE 1

```
 ***************************************************
   HEC2 RELEASE DATED NOV 76 (EDATED) MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ***************************************************


EOF..
```

```
SC
     3
    15.0  ************************************************
    15.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
    15.0  ************************************************
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 15
J1             2                  0.0100                          1800
J2     1              -1
J3   150
NC 0.123   0.123   0.123
JT     2    1000    7500
X1  15.0       9    4420    4880                                          15.0
X2
GR  1812    2000    1810    2960    1808    3530  1807.7    3970  1807.5  4420
GR1807.6    4890    1809    5300  1810.5    5730    1813    6650
EJ
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 15
J1             3                  0.0100                          1800
J2    15              -1


ER
EOF..
```

```
CCCCCC
         3
     15.0  ************************************************
     15.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
     15.0  ************************************************
T1             Clark County, Nevada COE - 100 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 15
J1                2                    0.0100                              1800
J2       1                -1
J3     150
NC  0.123    0.123    0.123
ST       2    1000     7500
K1    15.0       9     4420     4880                                                  15.0
X2
GR    1812     2000     1810     2960     1808     3530   1807.7     3970   1807.5     4420
GR1807.6     4880     1809     5300   1810.5     5730     1813     6650
EJ
T1             Clark County, Nevada COE - 500 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 15
J1                3                    0.0100                              1800
J2      15               -1


ER
EOF..
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1**************************************************
 *  WATER SURFACE PROFILES                        *
 *  VERSION OF NOVEMBER 1976                      *
 *  UPDATED AUGUST 1983                           *
 *                                                *
 *  RUN DATE  18-FEB-88 TIME   15:49:44           *
 **************************************************
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 ****************************************
 *  U.S. ARMY CORPS OF ENGINEERS
 *  THE HYDROLOGIC ENGINEERING CENTER
 *  609 SECOND STREET, SUITE D
 *  DAVIS, CALIFORNIA 95616
 *  (916) 440-2105 (FTS) 448-2105
 ****************************************
```


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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X          XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX    XXXXX            XXXXXXX

1
  18-FEB-88     15:49:45                                                    PAGE     1


 -**************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************


C
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 15

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ

       0.        2.        0.        0.  0.010000      0.00      0.0       0.  1800.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IRW        CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


NC      0.123     0.123     0.123     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      2.000  1000.000  7500.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
          ****************************************************
          STA 2000 IS LOCATED ON MAP WITH TIC MARK
          ****************************************************
X1     15.000     9.000  4420.000  4880.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1812.000  2000.000  1810.000  2960.000  1808.000  3530.000  1807.700  3970.000  1807.500  4420.000
GR   1807.600  4880.000  1809.000  5300.000  1810.500  5730.000  1813.000  6650.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
  18-FEB-88     15:49:45                                                    PAGE     2
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 15.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

15.00	0.87	1808.37	0.10	1800.00	1808.39	0.01	0.00	0.00	1807.50
1000.	542.	401.	57.	598.	379.	90.	0.	0.	1807.60
0.00	0.91	1.06	0.54	0.123	0.123	0.123	0.000	1807.50	3423.72
0.009976	0.	0.	0.	0	0	5	0.00	1688.16	5111.88

FLOW DISTRIBUTION FOR SECNO= 15.00 CWSEL= 1808.37

STA=	3424.	3530.	3970.	4420.	4880.	5112.
PER Q=	0.8	18.0	35.4	40.1	5.7	
AREA=	19.8	230.1	347.8	378.5	89.6	
VEL=	0.4	0.8	1.0	1.1	0.6	

1

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 15

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.010000	0.00	0.0	0.	1800.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 15.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

15.00	2.32	1809.82	0.00	1800.00	1809.88	0.05	0.00	0.00	1807.50

7500.	4236.	2179.	1085.	2342.	1045.	737.	0.	0.	1807.50	
0.00	1.81	2.08	1.47	0.123	0.123	0.123	0.000	1807.50	3010.52	
0.009957	0.	0.	0.	0	0	5	0.00	2525.34	5535.86	

FLOW DISTRIBUTION FOR SECNO= 15.00 CWSEL= 1809.82

STA=	3011.	3530.	3970.	4420.	4880.	5300.	5536.
PER Q=	7.2	21.9	27.4	29.0	13.6	0.9	
AREA=	473.4	868.0	1000.3	1045.4	639.5	97.0	
VEL=	1.1	1.9	2.1	2.1	1.6	0.7	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 15

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
15.000	0.00	0.00	0.00	1807.50	1000.00	1808.37	0.00	1808.39	99.76	1.06	1065.88	100.12
15.000	0.00	0.00	0.00	1807.50	7500.00	1809.82	0.00	1809.88	99.57	2.08	4123.73	751.63

1

Overflow X-Sec. 15

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
15.000	1000.00	1808.37	0.00	0.00	8.37	1688.16	0.00
15.000	7500.00	1809.82	1.45	0.00	9.82	2525.34	0.00

1

SUMMARY OF ERRORS AND SPECIAL NOTES

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982

```
      ERROR CORR -   01,02,03,04,05
      MODIFICATION -   50,51,52,53,54,55
    ***********************************************
```

EOF..

```
       3
      15     ************************************************
      16       TIC MARK LOCATED ON MAP AT STA 7420
      16     ************************************************
T1            Clark County, Nevada COE -  25 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 16
J1               2                  0.0068                              1800
J2       1          -1
J3     150
NC  0.050   0.050   0.060
ST       4    6200    9000   11500   16000
X1    16.0      19    9470   11830
X2                                                                      15.0
GR    1792    7420  1793.4    7670  1793.3    8320    1791    8520  1791.8    8580
GR1790.5    8660    1792    8720    1793    8880    1792    9010    1792    9160
GR1790.9    9470  1790.9    9750  1788.8   10000  1789.9   10300  1789.1   10500
GR    1792   11100    1792   11260    1796   11830  1799.3   12260
EJ
T1            Clark County, Nevada COE -  50 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 16
J1               3                  0.0068                              1900
J2       2          -1
T1            Clark County, Nevada COE - 100 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 16
J1               4                  0.0068                              1900
J2       3          -1
T1            Clark County, Nevada COE - 500 year flood
T2            James M. Montgomery Consulting Engineers, Inc.
T3            Overflow X-Sec. 16
J1               5                  0.0068                              1800
J2      15          -1


ER

EOF..
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```
CC
     3
    13.0  ****************************************************
    13.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
    13.0  ****************************************************
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13A
J1              2                0.0132                                  1850
J2       1              -1
J3     150
NC  0.123   0.123    0.022
QT       4   7200    10300    12500    17000
ET           7.1      7.1      7.1      7.1          2000     5720
K1      13     38     4340   4356.2
K2                                                                      15.0
GR    1854     2000     1853     2400     1853     2800   1850.0     3040   1847.0     3450
GR    1847     3700     1846     3950     1848     4340   1843.6   4340.1   1843.6   4346.1
GR    1848   4346.2     1848     4350   1843.6   4350.1   1843.6   4356.1     1848   4356.2
GR    1847     4560     1846     4920     1844     5070     1846     5560   1846.0     5720
GR    1845     5870     1846     6000     1845     6100     1842     6750     1845     7100
GR1846.7       7800     1850     8640   1847.7     9180     1848     9870   1850.8    10350
GR    1850    10900     1851    11400     1850    11770     1855    12500     1854    13400
GR    1854    13650     1855    13970     1857    14040
EJ
T1          Clark County, Nevada COE -  50 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13
J1              3                0.0132                                  1850
J2       2              -1
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13
J1              4                0.0132                                  1850
J2       3              -1
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 13
J1              5                0.0132                                  1850
J2      15              -1


ER
EOF..
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```
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16A
J1              2                   0.0068                                  1800
J2      1               -1
J3    150
NC  0.060   0.060   0.040
QT      4    7200   10000   12500   17000
ET           7.1     7.1     7.1     7.1             2000    2370
KI   16.0     15    2280    2305
K2                                                                          15.0
GR1803.2    2000  1801.6    2210  1801.6    2280    1799    2285    1759    2300
GR1802.8    2305  1802.8    2370  1802.3    2550  1800.7    2790    1800    3170
GR  1798    3670  1800.5    4270  1796.8    5070  1800.8    5960    1803    6360
EJ
T1          Clark County, Nevada COE -  50 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16A
J1              3                   0.0068                                  1800
J2      2               -1
T1          Clark County, Nevada COE - 100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16A
J1              4                   0.0068                                  1800
J2      3               -1
T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16A
J1              5                   0.0068                                  1800
J2     15               -1

ER

EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:50:29          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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I
18-FEB-88 15:50:31


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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 16

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        2.        0.        0.  0.006800      0.00      0.0       0.  1800.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.050     0.050     0.060     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      4.000  6200.000  9000.000 11500.000 16000.000     0.000     0.000     0.000     0.000     0.000
            ************************************************
            TIC MARK LOCATED ON MAP AT STA 7420
            ************************************************
X1     16.100    19.000  9470.000 11830.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1792.000  7420.000  1793.400  7670.000  1793.300  8320.000  1791.000  8520.000  1791.800  8580.000
GR   1790.500  8660.000  1792.000  8720.000  1793.000  8880.000  1792.000  9000.000  1792.000  9160.000
GR   1790.900  9470.000  1790.900  9750.000  1788.800 10000.000  1789.900 10300.000  1789.100 10500.000
GR   1792.000 11100.000  1792.000 11260.000  1796.000 11830.000  1799.300 12260.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 16.000

3265 DIVIDED FLOW

****
TIC MARK LOCATED ON MAP AT STA 7420
****

16.00	2.73	1791.53	0.00	1800.00	1791.64	0.11	0.00	0.00	1790.90
6200.	173.	6027.	0.	134.	2272.	0.	0.	0.	1796.00
0.00	1.29	2.65	0.00	0.050	0.060	0.050	0.000	1768.80	6473.66
0.006795	0.	0.	0.	0	0	9	0.00	1902.94	11003.37

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 1791.53

STA=	6474.	8520.	8560.	8660.	8731.	9470.	11830.
PER Q=	0.2	0.2	0.8	0.5	1.0	97.2	
AREA=	12.3	10.7	32.8	21.3	56.4	2271.7	
VEL=	1.0	1.0	1.6	1.6	1.1	2.7	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada CDE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 16

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.006800	0.00	0.0	0.	1800.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 16.000

3265 DIVIDED FLOW

	TIC MARK LOCATED ON MAP AT STA 7420								
16.00	3.10	1791.90	0.00	1800.00	1792.03	0.13	0.00	0.00	1790.90
9000.	507.	8493.	0.	303.	2843.	0.	0.	0.	1796.00
0.00	1.67	2.99	0.00	0.050	0.060	0.050	0.000	1788.80	8442.06
0.006811	0.	0.	0.	0	0	12	0.00	2163.15	11078.56

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 1791.90

STA=	8442.	8520.	8580.	8660.	8716.	9470.	11830.
PER Q=	0.6	0.5	1.3	0.8	2.4	94.4	
AREA=	34.9	29.8	59.7	39.0	139.9	2842.6	
VEL=	1.4	1.5	2.0	1.9	1.5	3.0	

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 100 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 16

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.006800	0.00	0.0	0.	1800.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

*PROF 3

*SECNO 16.000

3265 DIVIDED FLOW

3280 CROSS SECTION 16.00 EXTENDED 0.21 FEET

	TIC MARK LOCATED ON MAP AT STA 7420								
16.00	3.41	1792.21	0.00	1800.00	1792.35	0.14	0.00	0.00	1790.90
11500.	1072.	10428.	0.	530.	3381.	0.	0.	0.	1796.00
0.00	2.02	3.08	0.00	0.050	0.060	0.050	0.000	1788.80	7420.00

0.006788 0. 0. 0. 0 0 8 0.00 2688.22 11289.26

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 1792.21

STA=	7420.	7457.	8520.	8580.	8660.	8720.	8753.	9000.	9160.	9470.	11830.
PER Q=	0.0	1.0	0.9	1.9	1.2	0.0	0.0	0.2	4.1	90.7	
AREA=	3.8	63.2	48.3	84.4	57.3	3.4	2.5	32.9	234.1	3380.9	
VEL=	0.5	1.7	2.1	2.5	2.4	0.5	0.5	0.9	2.0	3.1	


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 16

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.006800	0.00	0.0	0.	1800.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

*SECNO 16.000

3265 DIVIDED FLOW

3280 CROSS SECTION 16.00 EXTENDED 0.58 FEET

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**************************************************
 TIC MARK LOCATED ON MAP AT STA 7420
**************************************************
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16.00	3.78	1792.58	0.00	1800.00	1792.75	0.17	0.00	0.00	1790.50
16000.	2162.	13838.	0.	892.	4069.	0.	0.	0.	1796.00
0.00	2.43	3.40	0.00	0.050	0.060	0.050	0.000	1788.80	7420.00
0.006699	0.	0.	0.	0	0	7	0.00	2944.63	11342.37

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 1792.58

STA=	7420.	7523.	8520.	8580.	8660.	8720.	8812.	9000.	9160.	9470.	11830.
PER Q=	0.2	1.4	1.2	2.2	1.5	0.2	0.1	1.0	5.8	86.5	
AREA=	29.8	108.3	70.7	114.2	79.7	26.7	20.0	92.5	349.7	4068.8	
VEL=	1.1	2.1	2.7	3.1	2.9	1.1	1.1	1.7	2.6	3.4	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 16

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
16.000	0.00	0.00	0.00	1788.80	6200.00	1791.53	0.00	1791.64	67.95	2.65	2405.31	752.16
16.000	0.00	0.00	0.00	1788.80	9000.00	1791.90	0.00	1792.03	68.11	2.99	3145.92	1090.55
16.000	0.00	0.00	0.00	1788.80	11500.00	1792.21	0.00	1792.35	67.88	3.08	3910.81	1395.31
16.000	0.00	0.00	0.00	1788.80	16000.00	1792.58	0.00	1792.75	66.99	3.40	4960.41	1954.85

1

Overflow X-Sec. 16

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
16.000	6200.00	1791.53	0.00	0.00	-8.47	1902.94	0.00
16.000	9000.00	1791.90	0.36	0.00	-8.10	2163.15	0.00
16.000	11500.00	1792.21	0.31	0.00	-7.79	2688.22	0.00
16.000	16000.00	1792.58	0.37	0.00	-7.42	2944.63	0.00

I

SUMMARY OF ERRORS AND SPECIAL NOTES

I

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

```
C
C        3
C       17
C       17     ****************************************
C       17      TIC MARK LOCATED ON MAP AT STA 2000
C       17     ****************************************
T1             Clark County, Nevada COE -  25 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 17
J1                2                    0.0053                              1760
J2       1            -1
J3     150
NC  0.123   0.123    0.123
ST       4   4300     6500     9500    14500
X1    17.0      14    3925     4000
X2                                                                          15.0
GR1765.1     2000  1761.0     2475  1763.5     2850  1764.1     3050     1760     3925
GR1755.0     3975  1760.0     4000  1751.2     4750  1761.2     5430     1760     5850
GR1758.4     6020  1760.0     6190  1751.4     7450  1764.5     7940
EJ
T1             Clark County, Nevada COE -  50 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 17
J1                3                    0.0053                              1760
J2       2            -1
T1             Clark County, Nevada COE - 100 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 17
J1                4                    0.0053                              1760
J2       3            -1
T1             Clark County, Nevada COE - 500 year flood
T2             James M. Montgomery Consulting Engineers, Inc.
T3             Overflow X-Sec. 17
J1                5                    0.0053                              1760
J2      15            -1


ER

EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:51:29          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X          XXXXX      XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
```



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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -   50,51,52,53,54,55
**********************************************

C
T1          Clark County, Nevada COE -  25 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 17

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.         2.         0.         0.   0.005300       0.00       0.0        0.   1760.000      0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NT      4.000   4300.000   6500.000   9500.000  14500.000      0.000      0.000      0.000      0.000      0.000
                ***********************************
                TIC MARK LOCATED ON MAP AT STA 2000
                ***********************************
X1     17.000     14.000   3925.000   4000.000      0.000      0.000      0.000      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
GR   1765.100   2000.000   1761.000   2475.000   1763.500   2850.000   1764.100   3050.000   1760.000   3925.000
GR   1755.000   3975.000   1760.000   4000.000   1761.200   4750.000   1761.200   5430.000   1760.000   5850.000
GR   1758.400   6020.000   1760.000   6180.000   1761.400   7450.000   1764.500   7940.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 17.000

3265 DIVIDED FLOW

****
TIC MARK LOCATED ON MAP AT STA 2000
****

17.00	6.61	1761.61	0.00	1760.00	1761.63	0.02	0.00	0.00	1760.00
4300.	229.	691.	3381.	324.	308.	3404.	0.	0.	1760.00
0.00	0.71	2.24	0.39	0.123	0.123	0.123	0.000	1755.00	2404.70
0.005306	0.	0.	0.	0	0	6	0.00	4061.93	7482.69

FLOW DISTRIBUTION FOR SECNO= 17.00 CWSEL= 1761.61

STA=	2405.	2475.	2566.	3925.	4000.	4750.	5430.	5850.	6020.	6180.	7450.	7483.
PER Q=	0.2	0.3	4.9	16.1	15.5	3.1	5.7	15.0	14.2	22.1	0.0	
AREA=	21.3	27.6	275.5	308.0	755.1	276.7	422.9	409.1	385.1	1151.6	3.4	
VEL=	0.4	0.4	0.3	2.2	0.9	0.5	0.9	1.5	1.6	0.8	0.2	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada CDE - 50 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 17

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.005300	0.00	0.0	0.	1760.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 17.300

3265 DIVIDED FLOW

```
                ************************************
                 TIC MARK LOCATED ON MAP AT STA 2000
                ************************************
    17.00       6.95  1761.95      0.03  1760.00  1761.98      0.03      0.00      0.00  1760.00
    6500.        418.      791.     5291.      528.      334.     4622.        0.        0.  1760.00
     0.00        0.79      2.37      1.14     0.123     0.123     0.123     0.000   1755.00  2364.48
 0.005308          0.        0.        0.         0         0         4      0.00   4283.19  7537.56
1
 FLOW DISTRIBUTION FOR SECNO=     17.00          CWSEL=   1761.95

 STA=    2364.     2475.     2618.     3925.     4000.     4750.     5430.     5850.     6020.     6180.     7450.     7538.
   PER Q=     0.4       0.6       5.4      12.2      16.8       5.8       9.4      12.5      11.7      25.1       0.1
    AREA=    52.7      68.2     407.4     334.0    1015.5     512.7     568.7     468.2     440.6    1592.5      24.3
     VEL=     0.5       0.5       0.9       2.4       1.1       0.7       1.1       1.7       1.7       1.0       0.4

1
 18-FEB-88    15:51:30                                                                                    PAGE     5


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1          Clark County, Nevada COE - 100 year flood
 T2          James M. Montgomery Consulting Engineers, Inc.
 T3          Overflow X-Sec. 17

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
        0.        4.        0.        0.  0.005300      0.00      0.0        0.  1760.000     0.000
 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
 18-FEB-88    15:51:30                                                                                    PAGE     6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 3
 *SECNO 17.000
 3265 DIVIDED FLOW

                ************************************
                 TIC MARK LOCATED ON MAP AT STA 2000
                ************************************
    17.00       7.33  1762.33      0.00  1760.00  1762.37      0.03      0.00      0.00  1760.00
    9500.        729.      909.     7862.      818.      363.     5980.        0.        0.  1760.00
     0.00        0.89      2.51      1.31     0.123     0.123     0.123     0.000   1755.00  2320.38
 0.005338          0.        0.        0.         0         0         5      0.00   4525.77  7597.72
1
 FLOW DISTRIBUTION FOR SECNO=     17.00          CWSEL=   1762.33
```

STA=	2320.	2475.	2675.	3925.	4000.	4750.	5430.	5850.	6020.	6180.	7450.	7598.
PER Q=	0.7	0.9	6.0	9.6	17.5	7.8	9.8	10.6	10.0	26.8	0.4	
AREA=	103.2	133.6	581.6	362.6	1301.0	771.6	728.5	532.9	501.5	2075.8	69.0	
VEL=	0.7	0.7	1.1	2.5	1.3	1.0	1.3	1.9	1.9	1.2	0.5	


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1          Clark County, Nevada COE - 500 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 17

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        5.        0.        0.  0.005300      0.00      0.0       0.  1760.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 4

*SECNO 17.000

3265 DIVIDED FLOW

                ****************************************
                 TIC MARK LOCATED ON MAP AT STA 2000
                ****************************************
    17.00       7.86   1762.86      0.00   1760.00   1762.90      0.04      0.00      0.00   1760.00
 14500.      1360.      1074.     12065.     1335.      402.     7899.        0.        0.   1760.00
     0.00       1.02      2.67      1.53     0.123     0.123     0.123     0.000   1755.00   2259.30
 0.005281        0.        0.        0.         0         0         6      0.00   4861.79   7681.06

FLOW DISTRIBUTION FOR SECNO=     17.00          CWSEL=   1762.86

STA=     2259.     2475.     2754.     3925.     4000.     4750.     5430.     5850.     6020.     6180.     7450.     7681.
  PER Q=      1.2       1.5       6.7       7.4      17.7       9.6       9.9       9.0       8.4      27.8       0.8
    AREA=   200.8     260.0     873.9     402.1    1696.4    1130.1     950.0     622.5     585.9    2745.4     168.9
     VEL=     0.8       0.8       1.1       2.7       1.5       1.2       1.5       2.1       2.1       1.5       0.7
```

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

     Overflow X-Sec. 17
SUMMARY PRINTOUT TABLE  150

      SECNO      XLCH      ELTRD      ELLC      ELMIN       Q         CWSEL      CRIWS      EG        10K*S      VCH       AREA       .01K
     17.000      0.00       0.00      0.00     1755.00   4300.00    1761.61      0.00     1761.63    53.06      2.24     4036.25    590.30
     17.000      0.00       0.00      0.00     1755.00   6500.00    1761.95      0.00     1761.98    53.08      2.37     5484.82    892.15
     17.000      0.00       0.00      0.00     1755.00   9500.00    1762.33      0.00     1762.37    53.38      2.51     7161.22   1300.23
     17.000      0.00       0.00      0.00     1755.00  14500.00    1762.86      0.00     1762.90    52.81      2.67     9635.92   1995.39

1
  18-FEB-88    15:51:30                                                                                          PAGE   10

     Overflow X-Sec. 17
SUMMARY PRINTOUT TABLE  150

      SECNO       Q         CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
     17.000    4300.00    1761.61       0.00       0.00       1.61    4861.93      0.00
     17.000    6500.00    1761.95       0.35       0.00       1.95    4293.19      0.00
     17.000    9500.00    1762.33       0.38       0.00       2.33    4525.77      0.00
     17.000   14500.00    1762.86       0.53       0.00       2.86    4861.79      0.00

1
  18-FEB-88    15:51:30                                                                                          PAGE   11


  SUMMARY OF ERRORS AND SPECIAL NOTES

1
  18-FEB-88    15:51:49                                                                                          PAGE    1


 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************


 EOF..
```

```
3
   18.0  ************************************************
   18.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
   18.0  ************************************************
T1         Clark County, Nevada COE -  100 year flood
T2         James M. Montgomery Consulting Engineers, Inc.
T3         Overflow X-Sec. 1@
J1            2                    0.0044                          1740
J2     1                -1
J3   150
NC 0.123   0.123   0.123
JT     2     750     5500
K1  18.0      15     2280     2305
K2                                                                      15.0
GR   1744     2000  1741.7     2200  1745.4     2370     1749     2500  1743.8     2760
GR1745.7     2870  1743.5     2960  1744.5     3150     1744     3300    1745     3450
GR1743.8     3600  1744.6     3840  1742.8     4580     1744     5380    1748     6530
EJ
T1         Clark County, Nevada COE - 500 year flood
T2         James M. Montgomery Consulting Engineers, Inc.
T3         Overflow X-Sec. 1@
J1            3                    0.0044                          1740
J2    15                -1


ER

EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:52:19          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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1


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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1          Clark County, Nevada COE -  100 year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Overflow X-Sec. 18

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     G         WSEL      FQ
        0.        2.        0.        0.  0.004400      0.00      0.0       0.  1740.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
        1.000     3.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
      150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC        0.123     0.123     0.123     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT        2.000   750.000  5500.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
          ***************************************************
          STA 2000 IS LOCATED ON MAP WITH TIC MARK
          ***************************************************
X1       18.000    15.000  2280.000  2305.000     0.000     0.000     0.000     0.000     0.000     0.000
X2        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR     1744.000  2000.000  1741.700  2200.000  1745.400  2370.000  1749.000  2500.000  1743.800  2760.000
GR     1745.700  2870.000  1743.500  2960.000  1744.500  3150.000  1744.000  3300.000  1745.000  3450.000
GR     1743.300  3600.000  1744.600  3840.000  1742.800  4580.000  1744.000  5380.000  1748.000  6530.000
EJ        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 18.000

3265 DIVIDED FLOW

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

18.00	2.29	1743.99	0.30	1740.00	1744.00	0.01	0.00	0.00	1794.00
750.	0.	0.	750.	0.	0.	1154.	0.	0.	1794.00
0.00	0.00	0.00	0.55	0.123	0.123	0.123	0.000	1741.70	2000.63
0.004373	0.	0.	0.	0	0	8	0.00	1806.80	5375.20

FLOW DISTRIBUTION FOR SECNO= 18.00 CWSEL= 1743.99

STA=	2001.	2200.	2305.	2760.	2771.	2960.	3054.	3600.	3658.	4580.	5375.
PER Q=	26.7	14.1	0.3	0.0	0.2	1.0	0.1	0.1	22.1	35.5	
AREA=	228.6	120.8	0.9	1.1	5.0	23.1	2.3	5.6	292.4	474.2	
VEL=	0.9	0.9	0.2	0.2	0.3	0.3	0.2	0.2	0.6	0.6	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 18

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	3.	0.	0.004400	0.00	0.0	0.	1740.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 18.000

3265 DIVIDED FLOW

3280 CROSS SECTION 18.00 EXTENDED 1.34 FEET

****
STA 2000 IS LOCATED ON MAP WITH TIC MARK
****

18.00	3.64	1745.34	0.00	1740.00	1745.36	0.02	0.00	0.00	1794.00	
5500.	0.	0.	5500.	0.	0.	4995.	0.	0.	1794.00	
0.00	0.00	0.00	1.10	0.123	0.123	0.123	0.000	1741.70	2000.00	
0.004362	0.	0.	0.	0	0	6	0.00	3415.85	5766.40	

FLOW DISTRIBUTION FOR SECNO= 18.00 CWSEL= 1745.34

STA=	2000.	2200.	2367.	3150.	3450.	3840.	4580.	5380.	5766.
PER Q=	13.2	6.6	7.0	4.2	6.3	24.6	35.1	2.9	
AREA=	498.8	305.1	453.5	290.7	416.1	1216.5	1555.2	259.7	
VEL=	1.5	1.2	0.9	0.8	0.9	1.1	1.2	0.6	

1
18-FEB-88 15:52:19 PAGE 5

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Overflow X-Sec. 18

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
18.000	0.00	0.00	0.00	1741.70	750.00	1743.99	0.00	1744.00	43.73	0.00	1153.85	113.42
18.000	0.00	0.00	0.00	1741.70	5500.00	1745.34	0.00	1745.36	43.62	0.00	4995.54	832.80

1
18-FEB-88 15:52:19 PAGE 6

Overflow X-Sec. 18

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
18.000	750.00	1743.99	0.00	0.00	3.99	1806.80	0.00
18.000	5500.00	1745.34	1.35	0.00	5.34	3415.85	0.00

1
18-FEB-88 15:52:19 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  18-FEB-88 TIME   15:53:03          *
 *************************************************
```


```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

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1
  18-FEB-88    15:53:05                                                    PAGE    1


 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

C
T1          Clark County, Nevada COE -  100-year flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Las Vegas Creek Overflow X-Sec. 19          DMH 9/26/87

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.011800      0.00      0.0       0.  1795.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.025     0.140     0.025     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      2.000  1000.000  7500.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
          ************************************************
          ST4 0.00 IS LOCATED ON MAP WITH TIC MARK
          ************************************************
X1     19.000    13.000   320.000   420.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1819.000     0.000  1791.000    30.000  1791.000   130.000  1819.000   161.000  1820.000   260.000
GR   1791.500   320.000  1791.500   420.000  1791.500   870.000  1795.000  1280.000  1795.000  1680.000
GR   1794.500  1690.000  1795.000  1850.000  1800.000  2210.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 19.000

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

****
STA 0.00 IS LOCATED ON MAP WITH TIC MARK
****

19.00	1.09	1792.09	1792.09	1795.00	1792.41	0.33	0.00	0.00	1791.50
1000.	604.	215.	181.	110.	59.	285.	0.	0.	1791.50
0.00	5.47	3.66	0.54	0.025	0.025	0.140	0.000	1791.00	28.83
0.007699	0.	0.	0.	0	14	0	0.00	722.42	938.81

FLOW DISTRIBUTION FOR SECNO= 19.00 CWSEL= 1792.09

STA=	29.	30.	130.	131.	320.	420.	870.	939.
PER Q=	0.2	60.0	0.2	0.1	21.5	17.3	0.8	
AREA=	0.6	108.7	0.7	0.4	58.7	264.3	20.2	
VEL=	2.8	5.5	2.8	2.2	3.7	0.7	0.4	

1

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Overflow X-Sec. 19

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.011800	0.00	0.0	0.	1795.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 19.000

*SECNO 19.000

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

****
STA 0.00 IS LOCATED ON MAP WITH TIC MARK
****

19.00	2.87	1793.87	1793.87	1795.00	1794.99	1.12	0.00	0.00	1791.50
7500.	3142.	2224.	2134.	302.	237.	1394.	0.	0.	1791.50
0.00	10.42	9.39	1.53	0.025	0.025	0.148	0.000	1791.00	26.93
0.007912	0.	0.	0.	0	19	0	0.00	938.59	1147.36

FLOW DISTRIBUTION FOR SECNO= 19.00 CWSEL= 1793.87

STA=	27.	30.	130.	133.	320.	420.	970.	1147.
PER Q=	0.3	40.8	0.3	0.4	29.7	23.8	4.6	
AREA=	4.4	296.8	4.6	5.9	236.8	1065.5	328.3	
VEL=	5.5	10.7	5.5	5.5	9.4	1.7	1.1	

1
18-FEB-88 15:53:05 PAGE 5

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Las Vegas Creek Over

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	19.000	0.00	0.00	0.00	1791.00	1000.00	1792.09	1792.09	1792.41	76.99	3.66	453.67	113.97
*	19.000	0.00	0.00	0.00	1791.00	7500.00	1793.87	1793.87	1794.99	79.12	9.39	1932.19	843.17

1
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Las Vegas Creek Over

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	19.000	1000.00	1792.09	0.00	0.00	-2.91	722.42	0.00
*	19.000	7500.00	1793.87	1.78	0.00	-1.13	938.59	0.00

1
18-FEB-88 15:53:05 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

```
 CAUTION  SECNO=   19.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=   19.000  PROFILE= 2  CRITICAL DEPTH ASSUMED

1
  18-FEB-88     15:53:23                                                                    PAGE     1


  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************



 EOF..
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```
CC          3
CC       21.0  ************************************************
CC       21.0  STA 2000 IS LOCATED ON MAP WITH TIC MARK
CC       21.0  ************************************************
T1               Clark County, Nevada COE - 100 year Flood
T2               James M. Montgomery Consulting Engineers, Inc.
T3               Charleston  Overflow X-Sec. 21
J1                  2                    .0238                                  2000
J2        1                -1
J3      150
NC  0.123    0.123    0.123
QT        2    1500    12000
K1       21      13     2870     4220
GR     1993    2000     1990     2470     1990     2580     1990     2870     1988     3025
GR     1988    3025     1988     4060   1988.4     4220     1995     4880   1996.1     5350
GR     1996    5610   1998.2     5960   2000.8     6115     2000     6410
EJ
T1               Clark County, Nevada COE - 500 year flood
T2               James M. Montgomery Consulting Engineers, Inc.
T3               Charleston  Overflow X-Sec. 21
J1                  3                    0.0238                                 2000
J2       15                -1


ER

EOF..
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1*********************************************
 *  WATER SURFACE PROFILES                   *
 *  VERSION OF NOVEMBER 1976                 *
 *  UPDATED AUGUST 1983                      *
 *                                           *
 *  RUN DATE  18-FEB-88 TIME   15:54:19      *
 *********************************************
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```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
```



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 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 **************************************************

C
T1          Clark County, Nevada COE - 100 year Flood
T2          James M. Montgomery Consulting Engineers, Inc.
T3          Charleston  Overflow X-Sec. 21

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         2.         0.         0.  0.023800       0.00       0.0        0.  2000.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000


NC       0.123      0.123      0.123      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT       2.000   1500.000  12000.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          ********************************************************
          STA 2300 IS LOCATED ON MAP WITH TIC MARK
          ********************************************************
X1      21.000     13.000   2870.000   4220.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    1993.000   2000.000   1990.000   2470.000   1990.000   2580.000   1990.000   2870.000   1988.000   3025.000
GR    1988.000   3025.000   1988.000   4060.000   1988.400   4220.000   1995.000   4880.000   1996.100   5350.000
GR    1996.000   5610.000   1998.200   5860.000   2000.800   6115.000   2000.000   6400.000      0.000      0.000
EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

*SECNO 21.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

21.00	0.81	1988.81	0.00	2000.00	1988.85	0.04	0.00	0.00	1990.00
1500.	0.	1495.	5.	0.	960.	3.	0.	0.	1988.40
0.00	0.00	1.56	0.55	0.123	0.123	0.123	0.000	1988.00	2562.29
0.023777	0.	0.	0.	0	0	10	0.00	1258.63	4260.92

1

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County, Nevada COE - 500 year flood
T2 James M. Montgomery Consulting Engineers, Inc.
T3 Charleston Overflow X-Sec. 21

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.023000	8.00	0.0	0.	2000.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

*SECNO 21.000

STA 2000 IS LOCATED ON MAP WITH TIC MARK

21.00	3.19	1991.19	0.00	2000.00	1991.50	0.31	0.00	0.00	1990.00
12000.	753.	10650.	597.	586.	4118.	389.	0.	0.	1988.40
0.00	1.28	2.59	1.53	0.123	0.123	0.123	0.000	1988.00	2283.71
0.022870	0.	0.	0.	0	0	7	0.00	2215.20	4498.91

1

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

     Charleston  Overflow
SUMMARY PRINTOUT TABLE  150

      SECNO       XLCH       ELTRD      ELLC       ELMIN       Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
     21.000       0.00       0.00       0.00      1988.00    1500.00    1988.81      0.00     1988.85    237.77      1.56      568.73     97.28
     21.000       0.00       0.00       0.00      1988.00   12000.00    1991.19      0.00     1991.50    228.70      2.59     5093.58    793.51

1
  18-FEB-88     15:54:20                                                                                                          PAGE     6

     Charleston  Overflow
SUMMARY PRINTOUT TABLE  150

      SECNO       Q          CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID     XLCH
     21.000     1500.00    1988.81      3.00       0.00      -11.19     1298.63      0.00
     21.000    12000.00    1991.19      2.38       0.00       -8.81     2215.20      0.00

1
  18-FEB-88     15:54:20                                                                                                          PAGE     7


  SUMMARY OF ERRORS AND SPECIAL NOTES

1
  18-FEB-88     15:54:28                                                                                                          PAGE     1


 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************


EOF..
```

```
CCCC
CCCC      3
C     1.00        Single cross section normal depth analysis of LOB 500-year
C     1.00        overflow downstream of I-15; Q = 6,500 cfs (combined divided
C     1.00        flow at I-15 and split flow between LVW x10.665 and 10.55)
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR LOB BREAKOUT D/S OF I-15
J1                2                    0.0090
J2     -1                    -1
J3    150
QT          1     6500
NC 0.037   0.037    0.037      0.1       0.3
X1    1.00          4         405       860
X2                                                                        15
GR1894.0          0   1892.0      405   1892.0      860   1894.0     1060
EJ


ER
EOF..
```

```
I**************************************************
 *  WATER SURFACE PROFILES                        *
 *  VERSION OF NOVEMBER 1976                      *
 *  UPDATED AUGUST 1983                           *
 *                                                *
 *  RUN DATE   5-FEB-88 TIME   11:40:29           *
 **************************************************
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 ************************************
 *  U.S. ARMY CORPS OF ENGINEERS
 *  THE HYDROLOGIC ENGINEERING CENTER
 *  609 SECOND STREET, SUITE D
 *  DAVIS, CALIFORNIA 95616
 *  (916) 440-2105 (FTS) 448-2105
 ************************************
```


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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X          XXXXX   XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX    XXXXX            XXXXXXX
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1

5-FEB-88 11:40:30 PAGE 1

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 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **************************************************
```

```
C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 500-YEAR LOB BREAKOUT D/S OF I-15
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	3.	0.	0.009000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.000	6500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.037	0.037	0.037	0.100	0.300	0.000	0.000	0.000	0.000	0.000

Single cross section normal depth analysis of LOB 500-year overflow downstream of I-15; Q = 6,500 cfs (combined divided flow at I-15 and split flow between LVW x10.665 and 10.55)

X1	1.000	4.000	405.000	860.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1894.000	0.000	1892.000	405.000	1892.000	860.000	1894.000	1060.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TCPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
Single cross section normal depth analysis of LOB 500-year overflow downstream of I-15; Q = 6,500 cfs (combined divided flow at I-15 and split flow between LVW x10.665 and 10.55)

1.00	1.83	1893.83	0.00	0.00	1894.24	0.41	0.00	0.00	1892.00
6500.	1204.	4701.	595.	338.	832.	167.	0.	0.	1892.00
0.00	3.56	5.65	3.55	0.037	0.037	0.037	0.000	1892.00	34.90
0.008866	3.	0.	3.	0	0	5	0.00	1007.86	1042.76

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 1893.83

STA=	35.	405.	860.	1043.
PER Q=	18.5	72.3	9.1	
AREA=	338.2	831.6	167.0	
VEL=	3.6	5.7	3.5	

1
5-FEB-88 11:40:30 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 500-Y
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	1892.00	6500.00	1893.83	0.00	1894.24	88.66	5.65	1336.79	690.32

1
5-FEB-88 11:40:30 PAGE 4

LAS VEGAS WASH - 500-Y
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	6500.00	1893.83	0.00	0.00	0.00	1007.86	0.00

1
5-FEB-88 11:40:30 PAGE 5

SUMMARY OF ERRORS AND SPECIAL NOTES

1


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

EOF..

```
CCCC
C       2
C    2.00       Single cross section normal depth analysis of LOB 25-year
C    2.00       overflow downstream of x10.49; Q = 900 cfs
T1          CORPS OF ENGINEERS/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 25-YEAR LOB BREAKOUT D/S OF x10.49
J1                2                    0.0030
J2     -1                -1
J3    150
QT       1       900
NC  0.037   0.037   0.037      0.1      0.3
X1   2.00       6     290      310
X2                                                                      15
GR1886.0         0  1884.0       50  1882.4      185  1882.0      290  1882.0      310
GR1884.0       715
EJ


ER
EOF..
```

123

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   6-FEB-88 TIME   02:34:26          *
 *************************************************
```

```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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```
X     X  XXXXXXX   XXXXX                XXXXX
X     X  X         X     X            X     X
X     X  X         X                  X     X
XXXXXXX  XXXX      X          XXXXX    XXXXX
X     X  X         X                  X
X     X  X         X     X            X
X     X  XXXXXXX    XXXXX             XXXXXXX
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1
6-FEB-88 02:34:26 PAGE 1

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************
```

```
C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR LOB BREAKOUT D/S OF x10.49
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.003000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.037	0.037	0.037	0.100	0.300	0.000	0.000	0.000	0.000	0.000

Single cross section normal depth analysis of LOB 25-year overflow downstream of x10.49; Q = 900 cfs

X1	2.000	6.000	290.000	310.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1886.000	0.000	1884.000	50.000	1882.400	185.000	1882.000	290.000	1882.000	310.000
GR	1884.000	715.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1
6-FEB-88 02:34:26 PAGE 2

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 2.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
Single cross section normal depth analysis of LOB 25-year overflow downstream of x10.49; Q = 900 cfs

2.00	1.48	1883.48	0.00	0.00	1883.55	0.07	0.00	0.00	1882.00
900.	419.	84.	397.	193.	30.	221.	0.	0.	1882.00
0.00	2.29	2.86	1.80	0.037	0.037	0.037	0.000	1882.00	94.20
0.003011	0.	0.	0.	0	0	6	0.00	514.73	608.93

FLOW DISTRIBUTION FOR SECNO= 2.00 CWSEL= 1883.48

STA=	94.	185.	290.	310.	609.
PER Q=	7.9	38.6	9.4	44.1	
AREA=	48.9	134.0	29.5	220.6	
VEL=	1.5	2.6	2.9	1.8	

1
6-FEB-88 02:34:26 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.000	0.00	0.00	0.00	1882.00	900.00	1883.48	0.00	1883.55	30.11	2.86	433.00	164.03

1
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LAS VEGAS WASH - 25-YE
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.000	900.00	1883.48	0.00	0.00	0.00	514.73	0.00

1
6-FEB-88 02:34:26 PAGE 5

SUMMARY OF ERRORS AND SPECIAL NOTES

1


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
3
3.00        Single cross section normal depth analysis of LOB 25-year
3.00        breakout at Cheyenne Avenue; Q = 800 cfs (determined by split
3.00        flow analysis between x10.15 and Cheyenne Ave.)
T1      CORFCD/COE OVERFLOW STUDY
T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3      LAS VEGAS WASH - 25-YEAR LOB BREAKOUT u/s of Cheyenne Avenue
J1            2                  0.0058
J2    -1                -1
J3   150
QT      1      800
NC 0.100  0.100    0.015      0.1       0.3
K1  3.00        5      550      635
K2                                                                    15
GR1970.0        0   1868.0      320   1866.0      550   1866.1      635   1867.9      860
EJ


ER
EOF..
```

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   7-FEB-88 TIME   20:49:21          *
 *************************************************
```

```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```

126

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X     X  XXXXXXX   XXXXX                 XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X          XXXXX      XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
```

1
7-FEB-88 20:49:21 PAGE 1

```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************
```

```
C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR LOB BREAKOUT u/s of Cheyenne Avenue

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.   0.005000      0.00      0.0       0.      0.000     0.000
J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
      -1.000    0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3   VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      1.000   800.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.100     0.100     0.015     0.100     0.300     0.000     0.000     0.000     0.000     0.000
                Single cross section normal depth analysis of LOB 25-year
                breakout at Cheyenne Avenue; Q = 800 cfs (determined by split
                flow analysis between x10.15 and Cheyenne Ave.)
X1      3.000     5.000   550.000   635.000     0.000     0.000     0.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR   1873.000     0.000  1868.000   320.000  1866.000   550.000  1866.100   635.000  1867.900   860.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

1
7-FEB-88 20:49:21 PAGE 2

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 3.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3720 CRITICAL DEPTH ASSUMED
Single cross section normal depth analysis of LOB 25-year breakout at Cheyenne Avenue; Q = 800 cfs (determined by split flow analysis between x10.15 and Cheyenne Ave.)

3.00	1.33	1867.33	1867.33	0.00	1867.85	0.53	0.00	0.00	1866.00
800.	62.	684.	54.	101.	108.	94.	0.	0.	1866.10
0.00	0.61	6.31	0.58	0.100	0.015	0.100	0.000	1866.00	397.55
0.00292*	0.	0.	0.	0	11	0	0.00	390.66	788.21

FLOW DISTRIBUTION FOR SECNO= 3.00 CWSEL= 1867.33

STA=	398.	550.	635.	788.
PER Q=	7.7	85.5	6.8	
AREA=	101.1	108.4	93.9	
VEL=	0.6	6.3	0.6	

1
7-FEB-88 20:49:21 PAGE 3

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE
SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	3.000	0.00	0.00	0.00	1866.00	800.00	1867.33	1867.33	1867.85	29.29	6.31	303.37	147.83

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7-FEB-88 20:49:21 PAGE 4

LAS VEGAS WASH - 25-YE
SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	3.000	800.00	1867.33	0.00	0.00	0.00	390.66	0.00

1
7-FEB-88 20:49:21 PAGE 5

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 3.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

1


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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EOF..

```
     12
   0.00        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   0.00        Centerline Station at 2333
   0.20        Centerline Station at 2200
   0.46        Centerline Station at 2803
   0.73        Centerline Station at 2440
   0.98        Centerline Station at 2546
   1.24        Centerline Station at 2918
   1.45        Centerline Station at 3015
   1.65        Centerline Station at 3173
   1.82        Centerline Station at 3349
   2.03        Centerline Station at 2646
   2.23        Centerline Station at 2583
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - 500-YEAR (d/s reach)
J1               2                0.0062                0.5
J2     -1                -1
J3     150
NC   .070     .050     .070      0.1      0.3
QT       1  84000
K1    0.00       26     2184     3356     1100     1100     1172
GR1660.0      1525  1656.0     1565  1652.0     1815  1650.8     2000  1649.1     2154
GR1646.5      2151  1646.5     2179  1651.4     2184  1646.6     2219  1644.0     2333
GR1644.2      2538  1644.9     3218  1652.5     3356  1645.1     3396  1646.8     3454
GR1653.3      3482  1647.6     3517  1647.2     3776  1646.8     4108  1648.9     4410
GR1652.0      4930  1652.0     4970  1650.0     5770  1652.0     6725  1656.8     7610
GR1657.3      7630
NC    0.08    0.08     0.08
K1    0.20       18     2000     3245     1000     1600     1060
GR1668.0      1700  1657.9     2000  1655.3     2266  1650.9     2504  1651.5     2847
GR1651.4      2969  1654.9     3245  1657.5     3707  1659.1     3965  1658.8     4067
GR1660.0      4087  1654.0     4230  1660.0     4330  1659.5     5260  1656.0     5860
GR1660.0      6750  1660.0     7250  1661.8     7290
K1    0.46       32     2338     2969     1225     2800     1380
GR1680.0      1550  1676.0     1570  1672.0     1595  1672.0     1880  1667.8     2000
GR1663.3      2088  1661.5     2167  1663.0     2180  1658.9     2192  1658.9     2204
GR1664.1      2216  1664.0     2231  1658.7     2338  1657.0     2782  1655.6     2792
GR1655.6      2813  1659.0     2969  1659.7     3550  1661.8     3850  1661.2     4025
GR1657.5      4045  1660.0     4075  1568.0     4425  1668.0     4545  1664.0     4565
GR1664.0      5375  1668.0     5395  1558.0     5420  1664.0     5710  1664.0     6745
GR1668.0      7105  1670.0     7725
K1    0.73       32     2324     3575     1300     2400     1436
GR1684.0      1680  1680.0     1955  1576.0     1975  1675.2     2000  1672.7     2103
GR1674.3      2119  1674.3     2147  1573.8     2166  1670.2     2249  1671.3     2324
GR1665.3      2810  1666.3     3275  1558.7     3575  1669.4     3778  1670.8     4365
GR1674.1      4481  1677.5     4513  1573.6     4576  1672.0     4796  1672.0     5036
GR1677.0      5736  1672.0     6436  1572.0     6940  1676.0     6970  1676.0     7010
GR1672.0      7030  1672.0     7350  1576.0     7410  1676.0     7440  1672.0     7730
GR1676.0      8370  1680.0     8640
NC    0.08    0.07     0.08
K1    0.98       20     2331     3773     1300     2320     1312
GR1688.0      1510  1684.0     1610  1580.0     1780  1677.6     2000  1675.5     2079
GR1678.3      2107  1678.3     2134  1677.3     2228  1676.5     2331  1678.7     2349
GR1673.2      3058  1674.6     3773  1574.8     4553  1676.5     4631  1676.0     4691
GR1675.0      4891  1676.0     5100  1580.0     7300  1681.5     7950  1684.0     8585
K1    1.24       21     2000     4140     1100      900     1344
GR1692.0      1440  1688.0     1455  1584.0     1545  1684.0     1770  1688.0     1820
GR1688.0      1900  1687.3     2000  1681.2     2167  1676.2     2265  1675.2     2918
GR1676.8      3294  1677.1     3639  1678.0     3909  1677.7     4140  1680.0     4220
GR1681.0      4250  1680.0     4280  1579.0     5480  1680.0     6030  1684.0     7180
GR1686.0      8495
K1    1.45       16     2442     3875     1300      900     1108
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GR1689.7   2996   1683.2   2132   1680.9   2215   1679.6   2442   1678.3   2832
GR1679.5   3527   1679.3   3716   1681.3   3875   1681.4   4015   1680.7   4060
GR1680.3   4075   1681.4   5175   1684.0   5975   1684.0   7175   1685.5   7540
GR1688.0   8380
NC   0.08   0.06     0.06
X1   1.65     25     3159   3203    875    725   1044
GR1720.0   1700   1716.0   1780   1712.0   1850   1708.0   1910   1692.6   2000
GR1681.2   2403   1681.9   2804   1682.9   3093   1681.3   3118   1683.3   3159
GR1680.7   3173   1683.1   3203   1682.5   3252   1680.9   3278   1683.1   3354
GR1682.3   3443   1681.5   3539   1682.7   3591   1681.4   3625   1683.3   3670
GR1685.1   4014   1685.0   4183   1684.4   5383   1684.0   6920   1692.0   8220
NC   0.08   0.08     0.04     .1     .3
X1   1.82     40     3175   3635    850   1050    948
GR1716.0   1780   1712.0   1850   1708.0   1910   1706.2   2000   1700.6   2084
GR1695.3   2155   1696.4   2197   1695.1   2243   1692.5   2272   1690.9   2307
GR1690.9   2378   1692.3   2411   1691.4   2448   1690.3   2479   1686.9   2812
GR1687.4   2937   1689.6   3112   1689.6   3175   1689.5   3217   1689.0   3259
GR1687.7   3323   1687.1   3349   1689.0   3369   1687.6   3375   1687.6   3392
GR1689.3   3402   1689.0   3429   1689.0   3437   1689.0   3493   1689.2   3510
GR1689.2   3532   1689.2   3543   1688.3   3562   1688.2   3588   1687.8   3615
GR1694.8   3635   1692.0   3655   1692.0   4865   1696.0   6450   1700.0   7530
NC   0.1     0.1     0.04
X1   2.03     45     2601   2684   1050    800   1076
GR1708.0   1240   1704.0   1290   1700.0   1300   1696.0   1330   1696.0   1685
GR1700.0   1700   1696.0   1785   1692.0   1960   1691.9   2000   1690.1   2040
GR1689.7   2080   1689.7   2212   1689.7   2287   1691.6   2440   1692.4   2487
GR1691.5   2563   1691.9   2601   1691.2   2617   1690.9   2631   1687.8   2635
GR1687.8   2656   1689.7   2668   1691.6   2679   1692.6   2684   1692.3   2709
GR1692.3   2739   1692.2   2766   1689.9   2776   1689.9   2823   1690.1   2850
GR1692.2   2874   1691.4   2924   1690.8   2957   1690.1   2980   1689.2   2998
GR1690.5   3015   1689.7   3026   1689.7   3047   1698.3   3080   1696.0   3105
GR1695.5   4495   1696.0   4740   1700.0   6550   1700.0   7450   1704.0   7570
NC   0.03     0.1     0.035
X1   2.23     38     2456   2740   1050   1000   1052
GR1716.0    900   1712.0   1110   1708.0   1250   1704.0   1450   1700.0   1605
GR1696.0   1885   1692.0   1910   1692.0   1935   1693.7   2000   1694.4   2187
GR1694.5   2353   1694.2   2420   1692.9   2429   1696.0   2456   1692.6   2482
GR1692.6   2494   1688.2   2506   1689.3   2552   1689.8   2560   1689.7   2606
GR1689.7   2628   1690.3   2646   1692.1   2660   1691.2   2689   1691.5   2701
GR1694.0   2740   1692.3   3010   1690.2   3022   1692.7   3056   1702.3   3092
GR1700.0   3120   1696.0   3130   1696.0   3980   1700.0   3985   1701.7   4020
GR1700.0   4060   1700.0   5800   1704.0   7440
EJ


ER
EOF..
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```
     12
   0.00        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   0.00        Centerline Station at 2333
   0.20        Centerline Station at 2200
   0.46        Centerline Station at 2833
   0.73        Centerline Station at 2440
   0.98        Centerline Station at 2540
   1.24        Centerline Station at 2918
   1.45        Centerline Station at 3015
   1.65        Centerline Station at 3173
   1.82        Centerline Station at 3349
   2.03        Centerline Station at 2646
   2.23        Centerline Station at 2593
T1         CORFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - 500-YEAR (d/s reach)
J1              2                0.0062                0.5
J2    -1                -1
J3   150
NC  .070    .050     .070      0.1      0.3
QT     1   94000
K1  0.00      26     2184     3356     1100     1100     1172
GR1660.0    1525  1656.0     1565  1652.0     1815  1650.8     2000  1649.1     2154
GR1646.5    2161  1646.5     2179  1651.4     2184  1646.6     2219  1644.0     2333
GR1644.2    2588  1644.9     3218  1652.5     3356  1645.1     3396  1646.8     3454
GR1653.3    3482  1647.6     3517  1647.2     3776  1646.8     4108  1648.0     4410
GR1652.0    4900  1652.0     4970  1650.0     5770  1652.0     6725  1656.0     7610
GR1657.3    7630
NC  0.08    0.08     0.08
X1  0.20      18     2000     3245     1000     1600     1060
GR1668.0    1700  1657.9     2000  1655.3     2266  1650.9     2504  1651.5     2847
GR1651.4    2969  1654.9     3245  1657.5     3707  1659.1     3965  1658.8     4067
GR1660.0    4087  1654.0     4230  1660.0     4330  1659.5     5260  1656.0     5860
GR1660.0    6750  1660.0     7250  1661.8     7290
X1  0.46      32     2338     2969     1225     2800     1380
GR1680.0    1550  1676.0     1570  1672.0     1595  1672.0     1880  1667.8     2000
GR1663.3    2088  1661.5     2167  1653.0     2180  1658.9     2192  1658.9     2204
GR1664.1    2216  1664.0     2231  1658.7     2338  1657.0     2782  1655.6     2792
GR1655.6    2813  1659.0     2969  1659.7     3550  1661.8     3850  1661.2     4025
GR1657.5    4045  1660.0     4075  1668.0     4425  1668.0     4545  1664.0     4565
GR1664.0    5375  1668.0     5395  1668.0     5420  1664.0     5710  1664.0     6745
GR1668.0    7105  1670.0     7725
X1  0.73      32     2324     3575     1300     2400     1436
GR1684.0    1680  1680.0     1995  1576.0     1975  1675.2     2000  1672.7     2103
GR1674.3    2119  1674.3     2147  1573.8     2166  1670.2     2249  1671.3     2324
GR1665.3    2810  1666.3     3275  1668.7     3575  1669.4     3778  1670.8     4365
GR1674.1    4481  1677.5     4513  1673.6     4576  1672.0     4796  1672.0     5036
GR1677.0    5736  1672.0     6436  1572.0     6940  1676.0     6970  1676.0     7010
GR1672.0    7030  1672.0     7350  1576.0     7410  1676.0     7440  1672.0     7730
GR1676.0    8370  1680.0     8640
NC  0.08    0.07     0.08
X1  0.98      20     2331     3773     1300     2320     1312
GR1688.0    1510  1684.0     1610  1580.0     1780  1677.6     2000  1675.5     2079
GR1678.3    2107  1678.3     2134  1677.3     2228  1676.5     2331  1678.7     2349
GR1673.2    3058  1674.6     3773  1574.8     4553  1676.5     4631  1676.0     4691
GR1675.0    4891  1676.0     5100  1580.0     7300  1681.5     7950  1684.0     8585
X1  1.24      21     2000     4140     1100      900     1344
GR1692.0    1440  1688.0     1455  1584.0     1545  1684.0     1770  1688.0     1820
GR1688.0    1900  1687.3     2000  1681.2     2167  1676.2     2265  1675.2     2918
GR1676.8    3294  1677.1     3639  1678.0     3909  1677.7     4140  1680.0     4220
GR1681.0    4250  1680.0     4280  1679.0     5480  1680.0     6030  1684.0     7180
GR1686.0    8495
X1  1.45      16     2442     3875     1300      900     1108
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GR1689.7    2096    1683.2    2132    1550.9    2215    1679.6    2442    1678.3    2832
GR1679.5    3527    1679.3    3716    1681.3    3875    1681.4    4015    1680.7    4060
GR1680.3    4075    1681.4    5175    1584.0    5975    1694.0    7175    1685.5    7540
GR1688.0    8380
NC   0.08    0.06      0.06
K1   1.65      25      3159    3203     975     725    1044
GR1720.0    1700    1716.0    1780    1712.0    1850    1708.0    1910    1692.6    2000
GR1681.2    2403    1681.9    2904    1582.9    3093    1681.3    3118    1683.3    3159
GR1680.7    3173    1683.1    3203    1582.5    3252    1680.9    3278    1683.1    3354
GR1682.3    3443    1681.5    3539    1682.7    3591    1681.4    3625    1683.3    3675
GR1685.1    4014    1685.0    4183    1684.4    5383    1688.0    6920    1692.0    8220
NC   0.08    0.08      0.04      .1      .3
K1   1.82      40      3175    3635     850    1050     948
GR1716.0    1780    1712.0    1850    1708.0    1910    1706.2    2000    1700.6    2084
GR1695.3    2155    1696.4    2197    1695.1    2243    1692.5    2272    1690.9    2307
GR1690.9    2378    1692.3    2411    1691.4    2448    1690.3    2479    1686.9    2812
GR1687.4    2987    1689.6    3112    1589.5    3175    1689.5    3217    1689.0    3259
GR1687.7    3323    1687.1    3349    1689.0    3369    1687.6    3375    1687.6    3392
GR1685.3    3412    1689.0    3429    1689.0    3437    1689.0    3493    1689.2    3510
GR1689.2    3532    1689.2    3543    1688.3    3562    1688.2    3588    1687.8    3615
GR1694.8    3635    1692.0    3655    1592.0    4865    1696.0    6450    1700.0    7530
NC   0.1     0.1      0.04
K1   2.03      45      2601    2684     1050     800    1076
GR1708.0    1240    1704.0    1290    1700.0    1300    1696.0    1330    1696.0    1685
GR1700.0    1700    1696.0    1785    1592.0    1960    1691.9    2000    1690.1    2040
GR1689.7    2080    1689.7    2212    1589.7    2287    1691.6    2440    1692.4    2487
GR1691.5    2563    1691.9    2601    1691.2    2617    1690.9    2631    1687.8    2635
GR1687.8    2656    1689.7    2668    1691.6    2679    1692.6    2684    1692.3    2709
GR1692.3    2739    1692.2    2766    1589.9    2776    1689.9    2823    1690.1    2850
GR1692.2    2874    1691.4    2924    1690.8    2957    1690.1    2930    1689.2    2998
GR1690.5    3015    1689.7    3026    1689.7    3047    1698.3    3080    1696.0    3105
GR1695.5    4495    1696.0    4740    1700.0    6550    1700.0    7450    1704.0    7570
NC   0.03      0.1     0.035
K1   2.23      38      2456    2740     1050    1000    1052
GR1716.0     900    1712.0    1110    1708.0    1250    1704.0    1450    1700.0    1605
GR1696.0    1885    1692.0    1910    1592.0    1935    1693.7    2000    1694.4    2187
GR1694.5    2353    1694.2    2420    1592.9    2429    1696.0    2456    1692.6    2482
GR1692.6    2494    1688.2    2506    1689.3    2552    1689.8    2550    1689.7    2606
GR1689.7    2628    1690.3    2646    1592.1    2660    1691.2    2689    1691.5    2701
GR1694.0    2740    1692.3    3010    1690.2    3022    1692.7    3056    1702.3    3092
GR1700.0    3120    1696.0    3130    1696.0    3980    1700.0    3985    1701.7    4020
GR1700.0    4060    1700.0    5900    1704.0    7440
EJ


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EOF..
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     12
    0.00          SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    0.00          Centerline Station at 2333
    0.20          Centerline Station at 2209
    0.46          Centerline Station at 2803
    0.73          Centerline Station at 2440
    0.98          Centerline Station at 2540
    1.24          Centerline Station at 2918
    1.45          Centerline Station at 3015
    1.65          Centerline Station at 3173
    1.82          Centerline Station at 3349
    2.03          Centerline Station at 2646
    2.23          Centerline Station at 2583
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 10-YEAR (d/s Reach)
J1                    2                    0.0062                    0.5
J2          1                -1
J3        150
NC      .070      .050      .070       0.1       0.3
QT          3      7800     14000     24000
ET                   5.1       5.1       5.1      1525      4970
K1      0.00          26      2184      3356      1100      1100      1172
GR1660.0      1525 1656.0      1565 1552.0      1815 1650.8      2000 1649.1      2154
GR1646.5      2161 1646.5      2179 1651.4      2184 1646.6      2219 1644.0      2333
GR1644.2      2588 1644.9      3218 1552.5      3356 1645.1      3396 1646.8      3454
GR1653.3      3482 1647.6      3517 1547.2      3776 1646.8      4108 1648.0      4410
GR1652.0      4930 1652.0      4970 1550.0      5770 1652.0      6725 1656.0      7610
GR1657.3      7630
NC      0.08      0.08      0.08
ET                   5.1       5.1       5.1      1700      4087
K1      0.20          18      2000      3245      1000      1600      1060
GR1668.0      1700 1657.9      2000 1655.3      2266 1650.9      2504 1651.5      2847
GR1651.4      2959 1654.9      3245 1557.5      3707 1659.1      3965 1658.8      4067
GR1660.0      4037 1654.0      4230 1560.0      4330 1659.5      5260 1656.0      5960
GR1650.0      5750 1660.0      7250 1551.8      7290
K1      0.46          23      2338      2969      1225      2800      1380
GR1680.0      1550 1676.0      1570 1672.0      1595 1672.0      1880 1667.8      2000
GR1663.3      2038 1661.5      2167 1653.0      2180 1658.9      2192 1659.9      2204
GR1664.1      2216 1664.0      2231 1658.7      2338 1657.0      2782 1655.6      2792
GR1655.6      2813 1659.0      2969 1659.7      3550 1661.8      3850 1661.2      4025
GR1657.5      4045 1660.0      4075 1568.0      4575
ET                   5.1       5.1       5.1      1680      5736
K1      0.73          32      2324      3575      1300      2400      1436
GR1684.0      1680 1680.0      1895 1676.0      1975 1675.2      2000 1672.7      2103
GR1674.3      2119 1674.3      2147 1673.8      2166 1670.2      2249 1671.3      2324
GR1665.3      2810 1666.3      3275 1568.7      3575 1669.4      3778 1670.8      4365
GR1674.1      4481 1677.5      4513 1573.6      4576 1672.0      4796 1672.0      5036
GR1677.0      5736 1672.0      6436 1672.0      6940 1676.0      6970 1676.0      7010
GR1672.0      7030 1672.0      7350 1676.0      7410 1676.0      7440 1672.0      7730
GR1676.0      8370 1680.0      8640
NC      0.08      0.07      0.08
ET                   5.1       5.1      2107
K1      0.98          20      2331      3773      1300      2320      1312
GR1688.0      1510 1684.0      1610 1580.0      1780 1677.6      2000 1675.5      2079
GR1678.3      2117 1678.3      2134 1677.3      2228 1676.5      2331 1678.7      2349
GR1673.2      3058 1674.6      3773 1674.8      4553 1676.5      4631 1676.0      4691
GR1675.0      4891 1676.0      5100 1680.0      7300 1681.5      7950 1684.0      8585
ET                   5.1       5.1       5.1      1900      7740
K1      1.24          21      2000      4143      1100       900      1344
GR1692.0      1440 1688.0      1455 1584.0      1545 1684.0      1770 1688.0      1820
GR1688.0      1980 1687.3      2000 1681.2      2167 1676.2      2265 1675.2      2918
GR1676.8      3294 1677.1      3639 1678.0      3909 1677.7      4140 1680.0      4220
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GR1681.0    4250   1680.0    4280   1679.0    5480   1680.0    6030   1684.0    7180
GR1686.5    7740
X1   1.45     16     2442     3875     1300      900     1108
GR1689.7    2096   1683.2    2132   1680.9    2215   1679.6    2442   1678.3    2832
GR1679.5    3527   1679.3    3716   1681.3    3875   1681.4    4015   1680.7    4060
GR1680.3    4075   1681.4    5175   1684.0    5975   1684.0    7175   1685.5    7540
GR1688.0    8380
NC   0.08   0.06     0.06
ET           5.1                    1700      4014
X1   1.65     25     3159     3203      975       725     1044
GR1720.0    1700   1716.0    1780   1712.0    1850   1708.0    1910   1692.6    2000
GR1681.2    2403   1681.9    2504   1682.9    3093   1681.3    3118   1683.3    3159
GR1680.7    3173   1683.1    3203   1682.5    3252   1680.9    3278   1683.1    3354
GR1682.3    3443   1681.5    3539   1682.7    3591   1681.4    3625   1683.3    3670
GR1685.1    4014   1685.0    4183   1684.4    5383   1688.0    6920   1692.0    8220
NC   0.08   0.08     0.04      .1       .3
ET           5.1      5.1     5.1      1780      3535
X1   1.82     40     3175     3635       850      1050      948
GR1716.0    1780   1712.0    1950   1708.0    1910   1706.2    2000   1700.6    2084
GR1695.3    2155   1696.4    2197   1695.1    2243   1692.5    2272   1690.9    2307
GR1690.9    2378   1692.3    2411   1691.4    2448   1690.3    2479   1686.9    2812
GR1687.4    2987   1689.6    3112   1689.6    3175   1689.5    3217   1689.0    3259
GR1687.7    3323   1687.1    3349   1689.0    3369   1687.6    3375   1687.6    3392
GR1689.3    3402   1689.0    3429   1689.0    3437   1689.0    3493   1689.2    3510
GR1689.2    3532   1689.2    3543   1688.3    3562   1688.2    3588   1687.8    3615
GR1694.8    3635   1692.0    3655   1692.0    4865   1696.0    6450   1700.0    7530
NC    0.1    0.1     0.04
ET           5.1      5.1     5.1      1240      3080
X1   2.03     45     2601     2684      1050       800     1076
GR1708.0    1240   1704.0    1290   1700.0    1300   1696.0    1330   1696.0    1685
GR1700.0    1700   1696.0    1785   1692.0    1960   1691.9    2000   1690.1    2040
GR1689.7    2080   1689.7    2212   1689.7    2287   1691.6    2440   1692.4    2487
GR1691.5    2563   1691.9    2601   1691.2    2617   1690.9    2631   1687.8    2635
GR1687.8    2656   1689.7    2668   1691.6    2679   1692.6    2684   1692.3    2709
GR1692.3    2739   1692.2    2766   1689.9    2776   1689.9    2823   1690.1    2850
GR1692.2    2874   1691.4    2924   1690.6    2957   1690.1    2980   1689.2    2998
GR1690.5    3015   1689.7    3026   1689.7    3047   1698.3    3080   1696.0    3105
GR1695.5    4495   1696.0    4740   1700.0    6550   1700.0    7450   1704.0    7570
NC   0.03    0.1     0.035
ET           5.1      5.1     5.1       900      3092
X1   2.23     38     2456     2740      1050      1000     1052
GR1716.0     900   1712.0    1110   1708.0    1250   1704.0    1450   1700.0    1605
GR1696.0    1885   1692.0    1910   1692.0    1935   1693.7    2010   1694.4    2187
GR1694.5    2353   1694.2    2420   1692.9    2429   1696.0    2456   1692.6    2482
GR1692.6    2494   1688.2    2506   1689.3    2552   1689.8    2560   1689.7    2606
GR1689.7    2628   1690.3    2646   1692.1    2660   1691.2    2689   1691.5    2701
GR1694.0    2740   1692.3    3010   1690.2    3022   1692.7    3056   1702.3    3092
GR1700.0    3120   1696.0    3130   1696.0    3980   1700.0    3985   1701.7    4020
GR1700.0    4060   1700.0    5800   1704.0    7440
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR (d/s reach)
J1               3                    0.0062                0.5
J2       2              -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 100-YEAR (d/s reach)
J1               4                    0.0062                0.5
J2     15               -1


ER
EOF..
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12
 0.00        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
 0.00        Centerline Station at 2333
 0.20        Centerline Station at 2200
 0.46        Centerline Station at 2803
 0.73        Centerline Station at 2440
 0.98        Centerline Station at 2540
 1.24        Centerline Station at 2918
 1.45        Centerline Station at 3015
 1.65        Centerline Station at 3173
 1.82        Centerline Station at 3349
 2.03        Centerline Station at 2646
 2.23        Centerline Station at 2583
T1       CCRFCD/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       LAS VEGAS WASH - NONDAMAGING FLOWS (d/s Reach)
J1              2                0.3062                0.5
J2       1             -1
J3     150
NC   .070     .050     .070      0.1      0.3
BT       3    5500     5600     5700
ET             5.1      5.1      5.1     1525     4970
X1   0.00       26     2184     3356     1100     1100     1172
GR1660.0     1525   1656.0     1565   1652.0     1815   1650.8     2000   1649.1     2154
GR1646.5     2161   1646.5     2179   1651.4     2184   1646.6     2219   1644.0     2333
GR1644.2     2588   1644.9     3218   1652.5     3356   1645.1     3396   1646.8     3454
GR1653.3     3482   1647.6     3617   1647.2     3776   1646.8     4108   1648.0     4410
GR1652.0     4900   1652.0     4970   1650.0     5770   1652.0     6725   1656.0     7610
GR1657.3     7630
NC   0.08    0.08     0.08
ET             5.1      5.1      5.1     1700     4087
X1   0.20       18     2000     3245     1000     1600     1060
GR1668.0     1700   1657.9     2000   1655.3     2266   1650.9     2504   1651.5     2847
GR1651.4     2969   1654.9     3245   1657.5     3707   1659.1     3965   1658.8     4067
GR1660.0     4087   1654.0     4230   1660.0     4330   1659.5     5250   1656.0     5860
GR1660.0     6750   1660.0     7250   1561.8     7290
X1   0.46       23     2338     2969     1225     2800     1380
GR1680.0     1550   1676.0     1570   1672.0     1595   1672.0     1980   1667.8     2000
GR1663.3     2038   1661.5     2167   1663.0     2180   1658.9     2192   1658.9     2204
GR1664.1     2216   1664.0     2231   1658.7     2338   1657.0     2732   1655.6     2792
GR1655.6     2813   1659.0     2969   1659.7     3550   1661.8     3850   1661.2     4025
GR1657.5     4045   1660.0     4075   1668.0     4575
ET             5.1      5.1      5.1     1680     5736
X1   0.73       32     2324     3575     1300     2400     1436
GR1684.0     1680   1680.0     1895   1576.0     1975   1675.2     2000   1672.7     2103
GR1674.3     2119   1674.3     2147   1573.8     2166   1670.2     2249   1671.3     2324
GR1665.3     2810   1666.3     3275   1568.7     3575   1669.4     3778   1670.8     4365
GR1674.1     4481   1677.5     4513   1673.6     4576   1672.0     4796   1672.0     5036
GR1677.0     5736   1672.0     6436   1672.0     6940   1676.0     6970   1676.0     7010
GR1672.0     7030   1672.0     7350   1676.0     7410   1676.0     7440   1672.0     7730
GR1676.0     8370   1680.0     8640
NC   0.08    0.07     0.08
ET             5.1      5.1      5.1     2107
X1   0.98       20     2331     3773     1300     2320     1312
GR1688.0     1510   1684.0     1610   1680.0     1780   1677.6     2000   1675.5     2079
GR1678.3     2107   1678.3     2134   1677.3     2228   1676.5     2331   1678.7     2349
GR1673.2     3058   1674.6     3773   1674.8     4553   1676.5     4631   1676.0     4691
GR1675.0     4891   1676.0     5100   1680.0     7300   1681.5     7950   1684.0     8585
ET             5.1      5.1      5.1     1900     7740
X1   1.24       21     2000     4140     1100      900     1344
GR1692.0     1440   1688.0     1455   1684.0     1545   1684.0     1770   1688.0     1820
GR1688.0     1900   1687.3     2000   1681.2     2167   1676.2     2265   1675.2     2918
GR1676.8     3294   1677.1     3635   1678.0     3909   1677.7     4140   1680.0     4220
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GR1681.0    4250   1680.0    4260   1679.0    5480   1680.0    6030   1684.0    7180
GR1686.5    7740
X1   1.45     16     2442     3875     1300      900     1108
GR1689.7    2096   1683.2    2132   1680.9    2215   1679.6    2442   1678.3    2832
GR1679.5    3527   1679.3    3716   1681.3    3875   1681.4    4015   1680.7    4060
GR1680.3    4075   1681.4    5175   1684.0    5975   1684.0    7175   1685.5    7540
GR1688.0    8380
NC   0.08   0.06     0.06
ET           5.1      5.1      5.1     1700     4014
X1   1.65     25     3159     3203      975      725     1044
GR1720.0    1700   1716.0    1780   1712.0    1850   1708.0    1910   1692.6    2000
GR1681.2    2403   1681.9    2904   1582.9    3093   1681.3    3118   1683.3    3159
GR1680.7    3173   1683.1    3203   1682.5    3252   1680.9    3278   1683.1    3354
GR1682.3    3443   1681.5    3539   1682.7    3591   1681.4    3625   1683.3    3670
GR1685.1    4014   1685.0    4183   1684.4    5383   1688.0    6920   1692.0    8220
NC   0.08   0.08     0.04      .1      .3
ET           5.1      5.1      5.1     1780     3635
X1   1.82     40     3175     3695      850     1050      948
GR1716.0    1780   1712.0    1850   1708.0    1910   1706.2    2000   1700.6    2084
GR1695.3    2155   1696.4    2197   1695.1    2243   1692.5    2272   1690.9    2307
GR1690.9    2378   1692.3    2411   1691.4    2448   1690.3    2479   1686.9    2812
GR1687.4    2987   1689.6    3112   1589.6    3175   1689.5    3217   1689.0    3259
GR1687.7    3323   1687.1    3349   1689.0    3369   1687.6    3375   1687.6    3392
GR1689.3    3402   1689.0    3429   1689.1    3437   1689.0    3493   1689.2    3510
GR1689.2    3532   1689.2    3543   1688.3    3562   1688.2    3588   1687.9    3615
GR1694.8    3635   1692.0    3655   1592.0    4865   1696.0    6450   1700.0    7530
NC    0.1    0.1     0.04
ET           5.1      5.1      5.1     1240     3080
X1   2.03     45     2601     2684     1050      800     1076
GR1708.0    1240   1704.0    1290   1700.0    1330   1696.0    1330   1696.0    1685
GR1700.0    1700   1696.0    1785   1592.0    1960   1691.9    2030   1690.1    2040
GR1689.7    2080   1689.7    2212   1689.7    2287   1691.6    2440   1692.4    2487
GR1691.5    2563   1691.9    2601   1591.2    2617   1690.9    2631   1687.8    2635
GR1687.8    2656   1689.7    2668   1691.6    2679   1692.6    2684   1692.3    2709
GR1692.3    2739   1692.2    2766   1689.9    2776   1689.9    2823   1690.1    2850
GR1692.2    2874   1691.4    2924   1690.8    2957   1690.1    2980   1689.2    2998
GR1690.5    3015   1689.7    3026   1689.7    3047   1698.3    3080   1696.0    3105
GR1695.5    4495   1696.0    4740   1700.0    6550   1700.0    7450   1704.0    7570
NC   0.03    0.1    0.035
ET           5.1      5.1      5.1      900     3092
X1   2.23     38     2456     2740     1050     1000     1052
GR1715.0     900   1712.0    1110   1708.0    1250   1704.0    1450   1700.0    1605
GR1696.0    1885   1692.0    1910   1692.0    1935   1693.7    2000   1694.4    2187
GR1694.5    2353   1694.2    2420   1592.9    2429   1696.0    2456   1692.6    2482
GR1692.6    2494   1688.2    2506   1689.3    2552   1689.8    2560   1689.7    2606
GR1689.7    2628   1690.3    2646   1592.1    2660   1691.2    2689   1691.5    2701
GR1694.8    2740   1692.3    3010   1690.2    3022   1692.7    3056   1702.3    3092
GR1700.0    3120   1696.0    3130   1696.0    3980   1700.0    3985   1701.7    4020
GR1700.0    4060   1700.0    5800   1704.0    7440
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR (d/s reach)
J1               3                    0.3062                0.5
J2       2              -1
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 100-YEAR (d/s reach)
J1               4                    0.3062                0.5
J2     15               -1


ER
EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   6-MAY-88 TIME   10:42:30          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X     X
XXXXXXX  XXXX      X           XXXXX  XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX   XXXXX             XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - NONDAMAGING FLOWS (d/s Reach)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.006200      0.00      0.5       0.     0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.370     0.050     0.070     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      3.000  5500.000  5600.000  5700.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     5.100     5.100     5.100  1525.000  4970.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above Advance Wastewater Treatment Plant)
                Centerline Station at 2333
X1      0.000    26.000  2184.000  3356.000  1100.000  1100.000  1172.000     0.000     0.000     0.000
GR   1660.300  1525.000  1656.000  1565.000  1652.000  1815.000  1650.800  2000.000  1649.100  2154.000
GR   1646.500  2161.000  1646.500  2179.000  1651.400  2184.000  1646.600  2219.000  1644.000  2333.000
GR   1644.200  2588.000  1644.900  3218.000  1652.500  3356.000  1645.100  3396.000  1646.800  3454.000
GR   1653.300  3482.000  1647.600  3517.000  1647.200  3776.000  1646.800  4108.000  1648.000  4410.000
GR   1652.300  4900.000  1652.000  4970.000  1650.000  5770.000  1652.000  6725.000  1656.000  7610.000
GR   1657.300  7630.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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NC	0.080	0.080	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1700.000	4087.000	0.000	0.000	0.000	0.000
		Centerline Station at 2200								
X1	0.200	18.000	2000.000	3245.000	1000.000	1600.000	1060.000	0.000	0.000	0.000
GR	1668.000	1700.000	1657.900	2000.000	1655.300	2266.000	1650.900	2504.000	1651.500	2847.000
GR	1651.400	2969.000	1654.900	3245.000	1657.500	3707.000	1659.100	3965.000	1658.800	4067.000
GR	1660.000	4087.000	1654.000	4230.000	1660.000	4330.000	1659.500	5260.000	1656.000	5860.000
GR	1660.000	6750.000	1660.000	7250.000	1661.800	7290.000	0.000	0.000	0.000	0.000
		Centerline Station at 2803								
X1	0.462	23.000	2338.000	2969.000	1225.000	2800.000	1380.000	0.000	0.000	0.000
GR	1680.000	1550.000	1676.000	1570.000	1672.000	1595.000	1672.000	1880.000	1667.800	2000.000
GR	1663.300	2088.000	1661.500	2167.000	1663.000	2180.000	1658.900	2192.000	1658.900	2204.000
GR	1664.100	2216.000	1664.000	2231.000	1658.700	2338.000	1657.000	2782.000	1655.600	2792.000
GR	1655.500	2813.000	1659.000	2969.000	1659.700	3550.000	1661.800	3850.000	1661.200	4025.000

GR	1657.500	4045.000	1660.000	4075.000	1668.000	4575.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1680.000	5736.000	0.000	0.000	0.000	0.000
		Centerline Station at 2440								
X1	0.730	32.000	2324.000	3575.000	1300.000	2400.000	1436.000	0.000	0.000	0.000
GR	1684.000	1680.000	1680.000	1895.000	1676.000	1975.000	1675.200	2000.000	1672.700	2103.000
GR	1674.300	2119.000	1674.300	2147.000	1673.900	2166.000	1670.200	2249.000	1671.300	2324.000
GR	1665.300	2810.000	1666.300	3275.000	1668.700	3575.000	1669.400	3778.000	1670.800	4365.000
GR	1674.100	4481.000	1677.500	4513.000	1673.600	4576.000	1672.000	4796.000	1672.000	5036.000
GR	1677.000	5736.000	1672.000	6436.000	1672.000	6940.000	1676.000	6970.000	1676.000	7010.000
GR	1672.000	7030.000	1672.000	7390.000	1676.000	7410.000	1676.000	7440.000	1672.000	7730.000
GR	1676.000	8370.000	1680.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.080	0.070	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	2107.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2540								
X1	0.980	20.000	2331.000	3773.000	1300.000	2320.000	1312.000	0.000	0.000	0.000
GR	1688.000	1510.000	1684.000	1610.000	1680.000	1780.000	1677.600	2000.000	1675.500	2079.000
GR	1678.300	2107.000	1678.300	2134.000	1677.300	2228.000	1676.500	2331.000	1678.700	2349.000
GR	1673.200	3058.000	1674.600	3773.000	1674.800	4553.000	1676.500	4631.000	1676.000	4691.000
GR	1675.000	4891.000	1676.000	5100.000	1680.000	7300.000	1681.500	7950.000	1684.000	8585.000
ET	0.000	5.100	5.100	5.100	1900.000	7740.000	0.000	0.000	0.000	0.000
		Centerline Station at 2918								
X1	1.240	21.000	2000.000	4140.000	1100.000	900.000	1344.000	0.000	0.000	0.000
GR	1692.000	1440.000	1688.000	1455.000	1684.000	1545.000	1684.000	1770.000	1688.000	1820.000
GR	1688.000	1900.000	1687.300	2000.000	1681.200	2167.000	1676.200	2265.000	1675.200	2918.000
GR	1676.800	3294.000	1677.100	3639.000	1678.000	3909.000	1677.700	4140.000	1680.000	4220.000
GR	1681.000	4250.000	1680.000	4280.000	1679.000	5480.000	1680.000	6030.000	1684.000	7180.000
GR	1686.500	7740.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 3015								
X1	1.450	16.000	2442.000	3875.000	1300.000	900.000	1108.000	0.000	0.000	0.000
GR	1689.700	2096.000	1683.200	2132.000	1680.900	2215.000	1679.600	2442.000	1678.300	2832.000
GR	1679.500	3527.000	1679.300	3716.000	1681.300	3875.000	1681.400	4015.000	1680.700	4060.000
GR	1680.300	4075.000	1681.400	5175.000	1684.000	5975.000	1684.000	7175.000	1685.500	7540.000
GR	1688.000	8380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.080	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1700.000	4014.000	0.000	0.000	0.000	0.000
		Centerline Station at 3173								
X1	1.550	25.000	3159.000	3203.000	975.000	725.000	1044.000	0.000	0.000	0.000
GR	1720.000	1700.000	1716.000	1780.000	1712.000	1850.000	1708.000	1910.000	1692.600	2000.000
GR	1681.200	2403.000	1681.900	2904.000	1682.900	3093.000	1681.300	3118.000	1683.300	3159.000
GR	1680.700	3173.000	1683.100	3203.000	1682.500	3252.000	1680.900	3278.000	1683.100	3354.000
GR	1682.300	3443.000	1681.500	3539.000	1682.700	3591.000	1681.400	3625.000	1683.300	3670.000
GR	1685.100	4014.000	1685.000	4183.000	1684.400	5383.000	1688.000	6920.000	1692.000	8220.000

NC	0.080	0.080	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1780.000	3635.000	0.000	0.000	0.000	0.000

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Centerline Station at 3349

X1	1.820	40.000	3175.000	3635.000	850.000	1050.000	548.000	0.000	0.000	0.000
GR	1716.000	1780.000	1712.000	1850.000	1708.000	1910.000	1706.200	2000.000	1700.600	2084.000
GR	1695.300	2155.000	1696.400	2197.000	1695.100	2243.000	1692.500	2272.000	1690.900	2307.000
GR	1690.900	2378.000	1692.300	2411.000	1691.400	2448.000	1690.300	2479.000	1686.900	2812.000
GR	1687.400	2987.000	1689.600	3112.000	1689.600	3175.000	1689.500	3217.000	1689.000	3259.000
GR	1687.700	3323.000	1687.100	3349.000	1689.000	3369.000	1687.600	3375.000	1687.600	3392.000
GR	1689.300	3402.000	1689.000	3429.000	1689.000	3437.000	1689.000	3493.000	1689.200	3510.000
GR	1689.200	3532.000	1689.200	3543.000	1688.300	3562.000	1688.200	3588.000	1687.800	3615.000
GR	1694.800	3635.000	1692.000	3655.000	1692.000	4865.000	1696.000	6450.000	1700.000	7530.000

NC	0.100	0.100	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1240.000	3080.000	0.000	0.000	0.000	0.000

Centerline Station at 2546

X1	2.130	45.000	2601.000	2684.000	1050.000	800.000	1076.000	0.000	0.000	0.000
GR	1708.000	1240.000	1704.000	1290.000	1700.000	1300.000	1696.000	1330.000	1696.000	1685.000
GR	1700.000	1700.000	1696.000	1785.000	1692.000	1960.000	1691.900	2000.000	1690.100	2040.000
GR	1689.700	2080.000	1689.700	2212.000	1689.700	2287.000	1691.600	2440.000	1692.400	2487.000
GR	1691.500	2563.000	1691.900	2601.000	1691.200	2617.000	1690.900	2631.000	1687.800	2635.000
GR	1687.300	2656.000	1689.700	2668.000	1691.600	2679.000	1692.600	2684.000	1692.300	2709.000
GR	1692.300	2739.000	1692.200	2766.000	1689.900	2776.000	1689.900	2823.000	1690.100	2850.000
GR	1692.200	2874.000	1691.400	2924.000	1690.800	2957.000	1690.100	2980.000	1689.200	2998.000
GR	1690.500	3015.000	1689.700	3026.000	1689.700	3047.000	1698.300	3080.000	1696.000	3105.000
GR	1695.500	4495.000	1696.000	4740.000	1700.000	6550.000	1700.000	7450.000	1704.000	7570.000

NC	0.030	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	900.000	3092.000	0.000	0.000	0.000	0.000

Centerline Station at 2583

X1	2.230	38.000	2456.000	2740.000	1050.000	1000.000	1052.000	0.000	0.000	0.000
GR	1716.000	900.000	1712.000	1110.000	1708.000	1250.000	1704.000	1450.000	1700.000	1605.000
GR	1696.300	1885.000	1692.000	1910.000	1692.000	1935.000	1693.700	2000.000	1694.400	2187.000
GR	1694.500	2353.000	1694.200	2420.000	1692.900	2429.000	1696.000	2456.000	1692.600	2482.000
GR	1692.500	2494.000	1688.200	2506.000	1689.300	2552.000	1689.800	2560.000	1689.700	2606.000
GR	1689.700	2628.000	1690.300	2646.000	1692.100	2660.000	1691.200	2689.000	1691.500	2701.000
GR	1694.000	2740.000	1692.300	3010.000	1690.200	3022.000	1692.700	3056.000	1702.300	3052.000
GR	1700.000	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.000	4060.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	2.55	1646.55	0.00	0.00	1646.66	0.11	0.00	0.00	1651.40
5500.	0.	5422.	78.	1.	2052.	42.	0.	0.	1652.50

0.00	0.23	2.64	1.95	0.070	0.070	0.050	0.000	1644.00	2160.86
0.006150	1100.	1172.	1100.	0	0	7	0.00	1102.31	3445.48

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1700.0 4097.0 TYPE= 1 TARGET= 2387.000

Centerline Station at 2200

0.20	3.22	1654.12	0.00	0.00	1654.25	0.13	7.58	0.01	1657.50
5500.	0.	5500.	0.	0.	1900.	0.	49.	24.	1654.90
0.10	0.00	2.90	0.00	0.080	0.080	0.080	0.000	1650.90	2329.80
0.008361	1000.	1060.	1600.	4	0	0	0.00	853.72	3183.53

*SECNO 0.450

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	5.22	1660.82	0.00	0.00	1660.88	0.06	6.62	0.01	1658.70
5500.	87.	4167.	1245.	78.	2020.	1053.	146.	76.	1659.00
0.33	1.11	2.06	1.18	0.080	0.080	0.080	0.000	1655.60	2186.39
0.002614	1225.	1380.	2800.	4	0	0	0.00	1535.08	4126.00

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1681.0 5736.0 TYPE= 1 TARGET= 4056.000

Centerline Station at 2440

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
0.73	3.00	1668.30	0.00	0.00	1668.45	0.15	7.54	0.03	1671.30
5500.	0.	5500.	0.	0.	1777.	0.	239.	126.	1668.70
0.47	0.00	3.09	0.00	0.080	0.080	0.080	0.000	1665.30	2566.99
0.012181	1300.	1436.	2400.	4	0	0	0.00	958.04	3525.03

*SECNO 0.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2107.0 8585.0 TYPE= 1 TARGET= -2107.000

Centerline Station at 2540

0.98	2.98	1676.18	0.00	0.00	1676.22	0.03	7.76	0.01	1676.50
5500.	0.	3495.	2005.	0.	2211.	1497.	339.	194.	1674.60
0.75	0.00	1.58	1.34	0.080	0.080	0.070	0.000	1673.20	2672.89
0.002856	1300.	1312.	2320.	2	0	0	0.00	2478.31	5203.06

*SECNO 1.240

3470 ENCROACHMENT STATIONS= 1900.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	3.60	1678.80	0.00	0.00	1678.83	0.02	2.61	0.00	1687.30
5500.	0.	5488.	12.	0.	4346.	21.	455.	255.	1677.70
1.03	0.00	1.26	0.55	0.080	0.080	0.070	0.000	1675.20	2213.97
0.001562	1100.	1344.	900.	4	0	0	0.00	1964.42	4178.39

*SECNO 1.450

3265 DIVIDED FLOW

Centerline Station at 3015

1.45	2.88	1681.18	0.00	0.00	1681.22	0.04	2.39	0.01	1679.60

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     550.      213.     5001.      285.      214.     2938.      409.      556.      311.   1681.30
     1.22      1.09      1.70      0.70     0.080     0.080     0.070     0.000   1678.30   2204.73
 0.003199     1300.     1108.      900.         3         0         0      0.00   2591.78   4959.54
 *SECNO 1.650

 3470 ENCROACHMENT STATIONS=     1700.0     4014.0  TYPE=     1  TARGET=     2314.000
1
   6-MAY-88     10:42:31                                                              PAGE     6

                Centerline Station at 3173
     1.65      3.43   1684.13      0.00      0.00   1684.19      0.05      2.96      0.00   1683.30
     550.      3346.      221.      1934.     1899.      97.       955.      627.      354.    1683.10
     1.36      1.76      2.29      2.02     0.080     0.060     0.060     0.000   1680.70   2299.35
 0.002986      975.     1044.      725.         4         0         0      0.00   1529.64   3828.99

 CCHV=   0.100  CEHV=   0.300
 *SECNO 1.820

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=     1781.0     3635.0  TYPE=     1  TARGET=     1855.000
                Centerline Station at 3349
     1.82      2.68   1689.58      0.00      0.00   1689.87      0.28      5.61      0.07   1689.60
     5500.     3514.     1996.        1.      913.      402.        0.      671.      380.  100000.00
     1.42      3.85      4.94      0.00     0.080     0.040     0.080     0.000   1686.98   2549.26
 0.019869      850.      948.      1050.        4         0         0      0.00    959.56   3620.09

 *SECNO 2.030

 3470 ENCROACHMENT STATIONS=     1240.0     3080.0  TYPE=     1  TARGET=     1840.000
                Centerline Station at 2646
     2.03      6.10   1693.90      0.00      0.00   1693.97      0.07      4.08      0.02   1691.90
     5500.     2828.     1234.     1439.     2115.      330.     1099.      727.      406.    1692.60
     1.57      1.34      3.74      1.31     0.100     0.040     0.110     0.000   1687.80   1877.23
 0.001652      1050.     1076.      800.         6         0         0      0.00   1185.85   3063.08

 *SECNO 2.230

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=      903.0     3092.0  TYPE=     1  TARGET=     2192.000
                Centerline Station at 2583
     2.23      6.86   1695.06      0.00      0.00   1695.19      0.13      1.20      0.02   1696.00
     5500.     1128.     3851.      521.      619.     1183.      693.      799.      434.    1694.00
     1.68      1.82      3.25      0.75     0.030     0.035     0.100     0.000   1688.20   1890.90
 0.000853      1050.     1052.     1000.        2         0         0      0.00   1158.50   3064.84
1
   6-MAY-88     10:42:31                                                              PAGE     7


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   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************

 T1         CCRFCD/COE OVERFLOW STUDY
 T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
 T3         LAS VEGAS WASH - 50-YEAR (d/s reach)
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J1	ICHECK	INN	KINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.006200	0.00	0.5	0.	0.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	2.57	1646.57	0.00	1646.55	1646.68	0.11	0.00	0.00	1651.40
5600.	0.	5518.	81.	1.	2075.	43.	0.	0.	1652.50
0.00	0.29	2.66	1.90	0.070	0.070	0.050	0.000	1644.00	2160.81
0.006158	1100.	1172.	1180.	0	0	7	0.00	1104.58	3446.22

*SECNO 0.230

3470 ENCROACHMENT STATIONS= 1701.0 4087.0 TYPE= 1 TARGET= 2387.000
Centerline Station at 2200

0.29	3.25	1654.15	0.00	1654.12	1654.28	0.13	7.59	0.01	1657.30
5600.	0.	5600.	0.	0.	1924.	0.	49.	24.	1654.90
0.10	0.00	2.91	0.00	0.080	0.080	0.080	0.000	1650.90	2328.30
0.008364	1000.	1060.	1600.	4	0	0	0.00	857.42	3185.72

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	5.25	1660.85	0.00	1660.82	1660.91	0.06	6.62	0.01	1658.70
5600.	89.	4223.	1287.	80.	2038.	1077.	148.	76.	1659.00
0.33	1.12	2.07	1.19	0.080	0.080	0.080	0.000	1655.60	2186.31
0.002607	1225.	1380.	2803.	4	0	0	0.00	1541.89	4127.80

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1681.0 5736.0 TYPE= 1 TARGET= 4056.000
Centerline Station at 2440

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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      0.75      3.02   1668.32      0.00   1668.37   1668.47      0.15      7.54      0.05   1671.30
      5600.        0.      5600.        0.        0.      1799.        1.       242.       126.      1668.70
       0.47      0.00      3.11      0.00     0.080     0.080     0.080     0.000   1665.30   2565.14
   0.012201     1300.      1436.      2400.         4         0         0      0.00    962.74   3527.88

 *SECNO 0.980

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=    2107.0     8585.0   TYPE=      1   TARGET=    -2107.000
                    Centerline Station at 2540
       0.98      3.00   1676.20      0.00   1676.18   1676.24      0.04      7.75      0.01   1676.50
      5600.        0.      3543.      2057.        0.      2233.      1526.       343.       195.      1674.60
       0.75      0.00      1.59      1.35     0.080     0.080     0.070     0.000   1673.20   2670.23
   0.002847     1300.      1312.      2320.         2         0         0      0.00   2495.73   5214.40

 *SECNO 1.240

 3470 ENCROACHMENT STATIONS=    1900.0     7740.0   TYPE=      1   TARGET=     5840.000
                    Centerline Station at 2918
       1.24      3.62   1678.82      0.00   1678.80   1678.85      0.03      2.61      0.00   1687.30
      5600.        0.      5587.       13.        0.      4386.       22.       462.       256.      1677.70
       1.02      0.00      1.27      0.57     0.080     0.080     0.070     0.000   1675.20   2213.55
   0.001570     1100.      1344.       980.         4         0         0      0.00   1965.57   4179.12

 *SECNO 1.450

 3265 DIVIDED FLOW

                    Centerline Station at 3015
       1.45      2.91   1681.21      0.00   1681.18   1681.25      0.04      2.40      0.01   1679.60
      5600.      222.      5074.      305.       219.      2970.      430.       563.       313.      1681.30
       1.21      1.01      1.71      0.71     0.080     0.080     0.070     0.000   1678.30   2203.92
   0.003179     1300.      1108.       900.         3         0         0      0.00   2618.43   4982.12

 *SECNO 1.650

 3470 ENCROACHMENT STATIONS=    1700.0     4014.0   TYPE=      1   TARGET=     2314.000

   6-MAY-88     10:42:31                                                                  PAGE    10

                    Centerline Station at 3173
       1.65      3.45   1684.15      0.00   1684.13   1684.21      0.06      2.95      0.00   1683.30
      5600.     3402.       224.      1974.      1916.        98.      967.       635.       356.      1683.10
       1.35      1.78      2.30      2.04     0.080     0.060     0.060     0.000   1680.70   2298.66
   0.003001      975.      1044.       725.         4         0         0      0.00   1534.09   3832.75

 CCHV=    0.100  CEHV=    0.300
 *SECNO 1.820

 3470 ENCROACHMENT STATIONS=    1781.0     3635.0   TYPE=      1   TARGET=     1855.000
                    Centerline Station at 3349
       1.82      2.71   1689.61      0.00   1689.58   1689.90      0.28      5.62      0.07   1689.60
      5600.     3564.      2036.        0.       926.       412.        0.       680.       383.    100000.00
       1.41      3.85      4.94      0.00     0.080     0.040     0.030     0.000   1686.90   2547.10
   0.019696      850.       948.      1050.         4         0         0      0.00   1073.06   3620.16

 *SECNO 2.030

 3470 ENCROACHMENT STATIONS=    1241.0     3080.0   TYPE=      1   TARGET=     1840.000
                    Centerline Station at 2646
       2.03      6.13   1693.93      0.00   1693.90   1694.00      0.07      4.08      0.02   1691.90
      5600.     2881.      1263.      1465.      2138.       332.     1112.       737.       409.      1692.60
       1.56      1.35      3.77      1.32     0.100     0.040     0.100     0.000   1687.80   1875.81
   0.001659     1050.      1076.       800.         6         0         0      0.00   1187.40   3063.21
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*SECNO 2.250

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 901.0 3092.0 TYPE= 1 TARGET= 2192.000
Centerline Station at 2593

2.23	6.90	1695.10	0.00	1695.06	1695.22	0.13	1.20	0.02	1696.00
5500.	1173.	3894.	533.	637.	1192.	704.	809.	437.	1694.00
1.67	1.84	3.27	0.75	0.030	0.035	0.100	0.000	1638.20	1890.69
0.000851	1050.	1052.	1001.	2	0	0	0.00	1159.37	3064.96

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORPCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - 100-YEAR (d/s reach)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	3.	4.	3.	0.	0.036200	0.00	0.5	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	2.59	1646.59	0.00	1646.55	1646.70	0.11	0.00	0.00	1651.40
5700.	1.	5615.	84.	2.	2097.	44.	0.	0.	1652.50
0.00	0.34	2.68	1.92	0.070	0.070	0.050	0.000	1644.00	2160.75
0.006165	1100.	1172.	1100.	0	0	7	0.00	1106.83	3446.95

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1701.0 4087.0 TYPE= 1 TARGET= 2387.000
Centerline Station at 2200

0.20	5.27	1654.17	0.00	1654.12	1654.31	0.13	7.60	0.01	1657.90
5700.	0.	5700.	0.	0.	1947.	0.	50.	24.	1654.90
0.10	0.00	2.93	0.00	0.080	0.080	0.080	0.000	1650.90	2326.80
0.008365	1000.	1060.	1600.	4	0	0	0.00	861.11	3187.91

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	5.28	1660.88	0.00	1660.82	1660.94	0.06	6.62	0.01	1658.70
5700.	92.	4280.	1328.	82.	2056.	1101.	150.	76.	1659.00
0.33	1.13	2.08	1.21	0.080	0.080	0.080	0.000	1655.60	2186.23
0.002600	1225.	1380.	2900.	4	0	0	0.00	1548.58	4129.57

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1680.0 5736.0 TYPE= 1 TARGET= 4056.000

Centerline Station at 2440

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TCPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
0.73	3.05	1668.35	0.00	1668.30	1668.50	0.15	7.53	0.03	1671.30
5700.	0.	5700.	0.	0.	1821.	0.	245.	127.	1668.70
0.47	0.00	3.13	0.00	0.080	0.080	0.080	0.000	1665.30	2563.26
0.012210	1300.	1436.	2400.	4	0	0	0.00	967.52	3530.78

*SECNO 0.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2107.0 8585.0 TYPE= 1 TARGET= -2107.000

Centerline Station at 2540

0.98	3.02	1676.22	0.00	1676.18	1676.25	0.04	7.74	0.01	1676.50
5700.	0.	3592.	2108.	0.	2256.	1554.	348.	196.	1674.60
0.75	0.00	1.59	1.36	0.080	0.080	0.070	0.000	1673.20	2667.62
0.002838	1300.	1312.	2320.	2	0	0	0.00	2512.85	5225.55

*SECNO 1.240

3470 ENCROACHMENT STATIONS= 1901.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	3.64	1678.84	0.00	1678.80	1678.87	0.03	2.61	0.00	1687.30
5700.	0.	5687.	13.	0.	4426.	23.	468.	257.	1677.70
1.02	0.00	1.28	0.58	0.080	0.080	0.070	0.000	1675.20	2213.15
0.001578	1100.	1344.	900.	4	0	0	0.00	1966.70	4179.85

*SECNO 1.450

3265 DIVIDED FLOW

Centerline Station at 3015

1.45	2.93	1681.23	0.00	1681.18	1681.27	0.04	2.40	0.01	1679.60
5700.	230.	5146.	324.	224.	3002.	452.	570.	314.	1681.30
1.21	1.02	1.71	0.72	0.080	0.080	0.070	0.000	1678.30	2203.10
0.003160	1300.	1108.	900.	3	0	0	0.00	2645.07	5004.71

*SECNO 1.650

3470 ENCROACHMENT STATIONS= 1703.0 4014.0 TYPE= 1 TARGET= 2314.000

Centerline Station at 3173

1.65	3.47	1684.17	0.00	1684.13	1684.23	0.06	2.95	0.00	1683.30
5700.	3458.	228.	2014.	1932.	99.	980.	644.	358.	1683.10
1.35	1.79	2.32	2.06	0.080	0.060	0.060	0.000	1680.70	2297.97
0.003017	975.	1044.	725.	4	0	0	0.00	1538.46	3836.44

CCHV= 0.100 CEHV= 0.300

*SECNO 1.920

3470 ENCROACHMENT STATIONS= 1780.0 3635.0 TYPE= 1 TARGET= 1855.000

Centerline Station at 3349

1.82	2.73	1689.63	0.00	1689.58	1689.92	0.29	5.62	0.07	1689.60
5700.	3603.	2097.	0.	939.	421.	0.	689.	385.	100000.00
1.41	3.84	4.98	0.00	0.080	0.040	0.030	0.000	1686.90	2545.08
0.019419	850.	948.	1050.	4	0	0	0.00	1075.14	3620.21

*SECNO 2.030

3470 ENCROACHMENT STATIONS= 1240.0 3080.0 TYPE= 1 TARGET= 1840.000

Centerline Station at 2546

2.03	6.16	1693.96	0.00	1693.90	1694.03	0.07	4.09	0.02	1691.90
5700.	2933.	1273.	1494.	2160.	335.	1123.	746.	411.	1692.60
1.56	1.36	3.80	1.33	0.100	0.040	0.100	0.000	1687.80	1874.52
0.001670	1050.	1076.	800.	6	0	0	0.00	1188.80	3063.32

*SECNO 2.230

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 900.0 3092.0 TYPE= 1 TARGET= 2192.000

Centerline Station at 2583

2.23	6.93	1695.13	0.00	1695.06	1695.26	0.13	1.21	0.02	1696.00
5700.	1217.	3938.	545.	655.	1201.	714.	820.	439.	1694.00
1.66	1.86	3.28	0.76	0.030	0.035	0.100	0.000	1688.20	1890.50
0.000851	1050.	1052.	1000.	2	0	0	0.00	1160.20	3065.08

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - NONDA

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	1644.00	5500.00	1646.55	0.00	1646.66	61.50	2.64	2094.90	701.33
0.000	0.00	0.00	0.00	1644.00	5600.00	1646.57	0.00	1646.68	61.58	2.66	2118.75	713.65
0.000	0.00	0.00	0.00	1644.00	5700.00	1646.59	0.00	1646.70	61.65	2.68	2142.36	725.93

0.200	1060.00	0.00	0.00	1650.90	5500.00	1654.12	0.00	1654.25	83.61	2.90	1699.75	601.48
0.200	1060.00	0.00	0.00	1650.90	5600.00	1654.15	0.00	1654.28	83.64	2.91	1923.61	612.33
0.200	1060.00	0.00	0.00	1650.90	5700.00	1654.17	0.00	1654.31	83.65	2.93	1947.39	623.22
0.460	1380.00	0.00	0.00	1655.60	5500.00	1660.82	0.00	1660.88	26.14	2.06	3151.00	1075.67
0.460	1380.00	0.00	0.00	1655.60	5600.00	1660.85	0.00	1660.91	26.07	2.07	3195.32	1096.82
0.460	1380.00	0.00	0.00	1655.60	5700.00	1660.88	0.00	1660.94	26.00	2.08	3239.09	1117.83
0.730	1436.00	0.00	0.00	1665.30	5500.00	1668.30	0.00	1668.45	121.81	3.09	1777.10	498.34
0.730	1436.00	0.00	0.00	1665.30	5600.00	1668.32	0.00	1668.47	122.01	3.11	1799.05	506.99
0.730	1436.00	0.00	0.00	1665.30	5700.00	1668.35	0.00	1668.50	122.10	3.13	1821.43	515.84
0.980	1312.00	0.00	0.00	1673.20	5500.00	1676.18	0.00	1676.22	28.56	1.58	3707.81	1029.14
0.980	1312.00	0.00	0.00	1673.20	5600.00	1676.20	0.00	1676.24	28.47	1.59	3759.16	1049.59
0.980	1312.00	0.00	0.00	1673.20	5700.00	1676.22	0.00	1676.25	28.38	1.59	3809.90	1069.87
1.240	1344.00	0.00	0.00	1675.20	5500.00	1678.80	0.00	1678.83	15.62	1.26	4366.88	1391.65
1.240	1344.00	0.00	0.00	1675.20	5600.00	1678.82	0.00	1678.85	15.70	1.27	4408.14	1413.22
1.240	1344.00	0.00	0.00	1675.20	5700.00	1678.84	0.00	1678.87	15.78	1.28	4449.18	1434.78
1.450	1108.00	0.00	0.00	1678.30	5500.00	1681.18	0.00	1681.22	31.98	1.70	3560.28	972.64
1.450	1108.00	0.00	0.00	1678.30	5600.00	1681.21	0.00	1681.25	31.79	1.71	3619.05	993.14
1.450	1108.00	0.00	0.00	1678.30	5700.00	1681.23	0.00	1681.27	31.60	1.71	3678.55	1013.96
1.650	1044.00	0.00	0.00	1680.70	5500.00	1684.13	0.00	1684.19	29.86	2.28	2950.51	1006.54
1.650	1044.00	0.00	0.00	1680.70	5600.00	1684.15	0.00	1684.21	30.01	2.30	2980.63	1022.23
1.650	1044.00	0.00	0.00	1680.70	5700.00	1684.17	0.00	1684.23	30.17	2.32	3010.26	1037.75

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.820	948.00	0.00	0.00	1686.90	5500.00	1689.58	0.00	1689.87	198.69	4.94	1315.42	390.19
1.820	948.00	0.00	0.00	1686.90	5600.00	1689.61	0.00	1689.90	196.96	4.94	1337.93	399.02
1.820	948.00	0.00	0.00	1686.90	5700.00	1689.63	0.00	1689.92	194.19	4.98	1360.10	409.04
2.030	1076.00	0.00	0.00	1687.80	5500.00	1693.90	0.00	1693.97	16.52	3.74	3543.92	1353.15
2.030	1076.00	0.00	0.00	1687.80	5600.00	1693.93	0.00	1694.00	16.59	3.77	3582.59	1375.05
2.030	1076.00	0.00	0.00	1687.80	5700.00	1693.96	0.00	1694.03	16.70	3.80	3617.40	1394.88
2.230	1052.00	0.00	0.00	1688.20	5500.00	1695.06	0.00	1695.19	8.53	3.26	2494.86	1883.04
2.230	1052.00	0.00	0.00	1688.20	5600.00	1695.10	0.00	1695.22	8.51	3.27	2533.20	1919.41
2.230	1052.00	0.00	0.00	1688.20	5700.00	1695.13	0.00	1695.26	8.51	3.28	2569.58	1954.33

LAS VEGAS WASH - NONDA

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	5500.00	1646.55	0.00	0.00	0.00	1102.31	0.00
0.000	5600.00	1646.57	0.02	0.00	0.02	1104.58	0.00
0.000	5700.00	1646.59	0.02	0.00	0.04	1106.93	0.00
0.200	5500.00	1654.12	0.00	7.57	0.00	853.72	1060.00
0.200	5600.00	1654.15	0.03	7.57	0.03	857.42	1060.00
0.200	5700.00	1654.17	0.03	7.58	0.05	861.11	1060.00
0.460	5500.00	1660.82	0.00	6.71	0.00	1535.08	1380.00
0.460	5600.00	1660.85	0.03	6.70	0.03	1541.89	1380.00
0.460	5700.00	1660.88	0.03	6.70	0.06	1548.58	1380.00

0.730	5500.00	1668.30	0.00	7.48	0.00	958.04	1436.00
0.730	5600.00	1668.32	0.02	7.47	0.02	962.74	1436.00
0.730	5700.00	1668.35	0.02	7.47	0.05	967.52	1436.00
0.980	5500.00	1676.18	0.00	7.88	0.00	2478.31	1312.00
0.980	5600.00	1676.20	0.02	7.88	0.02	2495.73	1312.00
0.980	5700.00	1676.22	0.02	7.87	0.04	2512.95	1312.00
1.240	5500.00	1678.80	0.00	2.62	0.00	1964.42	1344.00
1.240	5600.00	1678.82	0.02	2.62	0.02	1965.57	1344.00
1.240	5700.00	1678.84	0.02	2.62	0.04	1966.70	1344.00
1.450	5500.00	1681.18	0.00	2.38	0.00	2591.78	1108.00
1.450	5600.00	1681.21	0.02	2.38	0.02	2618.43	1108.00
1.450	5700.00	1681.23	0.02	2.38	0.05	2645.07	1108.00
1.650	5500.00	1684.13	0.00	2.95	0.00	1529.64	1044.00
1.650	5600.00	1684.15	0.02	2.95	0.02	1534.09	1044.00
1.650	5700.00	1684.17	0.02	2.94	0.04	1538.46	1044.00
1.820	5500.00	1686.58	0.00	5.45	0.00	999.56	948.00
1.820	5600.00	1686.61	0.03	5.46	0.03	1073.06	948.00
1.820	5700.00	1686.63	0.02	5.46	0.05	1075.14	948.00
2.030	5500.00	1693.90	0.00	4.32	0.00	1185.85	1076.00
2.030	5600.00	1693.93	0.03	4.32	0.03	1187.40	1076.00
2.030	5700.00	1693.96	0.03	4.33	0.06	1188.90	1076.00
2.230	5500.00	1695.06	0.00	1.16	0.00	1158.50	1052.00
2.230	5600.00	1695.10	0.03	1.17	0.03	1159.37	1052.00
2.230	5700.00	1695.13	0.03	1.17	0.06	1160.20	1052.00

SUMMARY OF ERRORS AND SPECIAL NOTES


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   4-MAY-88 TIME   18:05:55          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 10-YEAR (d/s Reach)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.       2.        0.        0.  0.006200      0.00      0.5       0.      0.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000      0.000    -1.000     0.000     0.300     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.070     0.050     0.070     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      3.000  7800.000 14000.000 24000.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     5.100     5.100     5.100  1525.000  4970.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above Advance Wastewater Treatment Plant)
                Centerline Station at 2333
X1      0.000    26.000  2184.000  3356.000  1100.000  1100.000  1172.000     0.000     0.000     0.000
GR   1660.000  1525.000  1656.000  1565.000  1652.000  1815.000  1650.800  2000.000  1649.100  2154.000
GR   1646.500  2161.000  1646.500  2179.000  1651.400  2184.000  1646.600  2219.000  1644.000  2333.000
GR   1644.200  2588.000  1644.900  3218.000  1652.500  3356.000  1645.100  3396.000  1646.800  3454.000
GR   1653.300  3482.000  1647.600  3517.000  1647.200  3776.000  1646.800  4108.000  1648.000  4410.000
GR   1652.000  4900.000  1652.000  4970.000  1650.000  5770.000  1652.000  6725.000  1656.000  7610.000
GR   1657.300  7630.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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NC	0.380	0.080	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	5.100	5.100	5.100	1780.000	4087.000	0.000	0.000	0.000	0.000
		Centerline Station at 2200								
X1	0.200	18.000	2000.000	3245.000	1000.000	1600.000	1060.000	0.000	0.000	0.000
GR	1668.000	1700.000	1657.900	2000.000	1655.300	2266.000	1650.900	2504.000	1651.500	2847.000
GR	1651.400	2969.000	1654.900	3245.000	1657.500	3707.000	1659.100	3965.000	1658.800	4067.000
GR	1660.000	4087.000	1654.000	4230.000	1660.000	4330.000	1659.500	5260.000	1656.000	5860.000
GR	1660.000	6750.000	1660.000	7250.000	1661.800	7290.000	0.000	0.000	0.000	0.000
		Centerline Station at 2803								
X1	0.460	23.000	2338.000	2969.000	1225.000	2800.000	1360.000	0.000	0.000	0.000
GR	1680.000	1550.000	1676.000	1570.000	1672.000	1595.000	1672.000	1880.000	1667.800	2000.000
GR	1663.300	2088.000	1661.500	2167.000	1663.000	2180.000	1658.900	2192.000	1658.900	2204.000
GR	1664.100	2216.000	1664.000	2231.000	1658.700	2338.000	1657.000	2782.000	1655.600	2792.000
GR	1655.500	2813.000	1659.000	2969.000	1659.700	3550.000	1661.800	3850.000	1661.200	4025.000

GR	1657.500	4045.000	1660.000	4075.000	1668.000	4575.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1680.000	5736.000	0.000	0.000	0.000	0.000
		Centerline Station at 2440								
X1	0.730	32.000	2324.000	3575.000	1300.000	2400.000	1436.000	0.000	0.000	0.000
GR	1684.000	1680.000	1680.000	1895.000	1676.000	1975.000	1675.200	2000.000	1672.700	2103.000
GR	1674.300	2119.000	1674.300	2147.000	1673.800	2166.000	1670.200	2249.000	1671.300	2324.000
GR	1665.300	2810.000	1666.300	3275.000	1668.700	3575.000	1669.400	3778.000	1670.800	4365.000
GR	1674.100	4481.000	1677.500	4513.000	1673.600	4576.000	1672.000	4796.000	1672.000	5036.000
GR	1677.300	5736.000	1672.000	6436.000	1672.000	6940.000	1676.000	6970.000	1676.000	7010.000
GR	1672.000	7030.000	1672.000	7390.000	1676.000	7410.000	1676.000	7440.000	1672.000	7730.000
GR	1676.300	8370.000	1680.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.380	0.070	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	5.100	5.100	0.000	2107.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2540								
X1	0.980	20.000	2331.000	3773.000	1300.000	2320.000	1312.000	0.000	0.000	0.000
GR	1688.000	1510.000	1684.000	1610.000	1680.000	1780.000	1677.600	2000.000	1675.500	2079.000
GR	1678.300	2107.000	1678.300	2134.000	1677.300	2228.000	1676.500	2331.000	1678.700	2349.000
GR	1673.200	3058.000	1674.600	3773.000	1674.800	4553.000	1676.500	4631.000	1676.000	4691.000
GR	1675.000	4891.000	1676.000	5100.000	1680.000	7300.000	1681.500	7950.000	1684.000	8585.000
ET	0.300	5.100	5.100	5.100	1900.000	7740.000	0.000	0.000	0.000	0.000
		Centerline Station at 2918								
X1	1.240	21.000	2000.000	4140.000	1100.000	900.000	1344.000	0.000	0.000	0.000
GR	1692.000	1440.000	1688.000	1455.000	1684.000	1545.000	1684.000	1770.000	1688.000	1820.000
GR	1688.000	1900.000	1687.300	2000.000	1681.200	2167.000	1676.200	2265.000	1675.200	2918.000
GR	1676.300	3294.000	1677.100	3639.000	1678.000	3909.000	1677.700	4140.000	1680.000	4220.000
GR	1681.000	4250.000	1680.000	4280.000	1679.000	5480.000	1680.000	6030.000	1684.000	7180.000
GR	1686.500	7740.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 3015								
X1	1.450	16.000	2442.000	3875.000	1300.000	900.000	1108.000	0.000	0.000	0.000
GR	1689.700	2096.000	1683.200	2132.000	1680.900	2215.000	1679.600	2442.000	1678.300	2832.000
GR	1679.500	3527.000	1679.300	3716.000	1681.300	3875.000	1681.400	4015.000	1680.700	4060.000
GR	1680.300	4075.000	1681.400	5175.000	1684.000	5975.000	1684.000	7175.000	1685.500	7540.000
GR	1688.300	8380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.080	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	5.100	0.000	0.000	1700.000	4014.000	0.000	0.000	0.000	0.000
		Centerline Station at 3173								
X1	1.550	25.000	3159.000	3203.000	975.000	725.000	1044.000	0.000	0.000	0.000
GR	1720.300	1700.000	1716.000	1780.000	1712.000	1850.000	1708.000	1910.000	1692.600	2000.000
GR	1681.200	2403.000	1681.900	2904.000	1682.900	3093.000	1681.300	3118.000	1683.300	3159.000
GR	1680.700	3173.000	1683.100	3203.000	1682.500	3252.000	1680.900	3278.000	1683.100	3354.000
GR	1682.300	3443.000	1681.500	3539.000	1682.700	3591.000	1681.400	3625.000	1683.300	3670.000
GR	1685.100	4014.000	1685.000	4183.000	1684.400	5383.000	1688.000	6920.000	1692.000	8220.000

NC	0.080	0.080	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1780.000	3635.000	0.000	0.000	0.000	0.000

Centerline Station at 3349

X1	1.320	40.000	3175.000	3635.000	850.000	1050.000	948.000	0.000	0.000	0.000
GR	1716.000	1780.000	1712.000	1850.000	1708.000	1910.000	1706.200	2000.000	1700.600	2084.000
GR	1695.300	2155.000	1696.400	2197.000	1695.100	2243.000	1692.500	2272.000	1690.900	2307.000
GR	1691.900	2378.000	1692.300	2411.000	1691.400	2448.000	1690.300	2479.000	1686.900	2812.000
GR	1687.400	2987.000	1689.600	3112.000	1689.600	3175.000	1689.500	3217.000	1689.000	3259.000
GR	1687.700	3323.000	1687.100	3349.000	1689.000	3369.000	1687.600	3375.000	1687.600	3392.000
GR	1689.300	3402.000	1689.000	3429.000	1689.000	3437.000	1689.000	3493.000	1689.200	3510.000
GR	1689.200	3532.000	1689.200	3543.000	1688.300	3562.000	1688.200	3588.000	1687.800	3615.000
GR	1694.300	3635.000	1692.000	3655.000	1692.000	4865.000	1696.000	6450.000	1700.000	7530.000

NC	0.100	0.100	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	1240.000	3080.000	0.000	0.000	0.000	0.000

Centerline Station at 2546

X1	2.030	45.000	2601.000	2684.000	1050.000	800.000	1076.000	0.000	0.000	0.000
GR	1708.000	1240.000	1704.000	1290.000	1700.000	1300.000	1696.000	1330.000	1696.000	1685.000
GR	1700.000	1700.000	1696.000	1785.000	1692.000	1960.000	1691.900	2000.000	1690.100	2040.000
GR	1689.700	2080.000	1689.700	2212.000	1689.700	2287.000	1691.600	2440.000	1692.400	2487.000
GR	1691.500	2563.000	1691.900	2601.000	1691.200	2617.000	1690.900	2631.000	1687.800	2635.000
GR	1687.300	2656.000	1689.700	2668.000	1691.600	2679.000	1692.600	2684.000	1692.300	2705.000
GR	1692.300	2739.000	1692.200	2766.000	1689.900	2776.000	1689.900	2823.000	1690.100	2850.000
GR	1692.200	2874.000	1691.400	2924.000	1690.800	2957.000	1690.100	2980.000	1689.200	2998.000
GR	1690.500	3015.000	1689.700	3026.000	1689.700	3047.000	1698.300	3080.000	1696.000	3105.000
GR	1695.500	4495.000	1696.000	4740.000	1703.000	6550.000	1700.000	7450.000	1704.000	7570.000

NC	0.030	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	5.100	5.100	900.000	3092.000	0.000	0.000	0.000	0.000

Centerline Station at 2583

X1	2.230	38.000	2456.000	2740.000	1050.000	1000.000	1052.000	0.000	0.000	0.000
GR	1716.000	900.000	1712.000	1110.000	1708.000	1250.000	1704.000	1450.000	1700.000	1605.000
GR	1696.300	1885.000	1692.000	1910.000	1692.000	1935.000	1693.700	2000.000	1694.400	2187.000
GR	1694.500	2353.000	1694.200	2420.000	1692.900	2429.000	1696.000	2456.000	1692.600	2482.000
GR	1692.600	2494.000	1688.200	2506.000	1689.300	2552.000	1689.800	2560.000	1689.700	2606.000
GR	1689.700	2628.000	1690.300	2646.000	1692.100	2660.000	1691.200	2689.000	1691.500	2701.000
GR	1694.000	2740.000	1692.300	3010.000	1690.200	3022.000	1692.700	3056.000	1702.300	3052.000
GR	1700.300	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.000	4060.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	3.01	1647.01	0.00	0.00	1647.15	0.14	0.00	0.00	1651.40	
7800.	10.	7608.	182.	10.	2524.	94.	0.	0.	1652.50	

0.00	1.04	3.01	1.94	0.070	0.070	0.050	0.000	1644.00	2159.64
0.006197	1130.	1172.	1100.	0	0	7	0.00	1352.06	4159.93

*SECNO 0.230

3470 ENCROACHMENT STATIONS= 1700.0 4087.0 TYPE= 1 TARGET= 2387.000

Centerline Station at 2200

0.20	3.79	1654.69	0.00	0.00	1654.85	0.16	7.70	0.01	1657.90
7800.	0.	7800.	0.	0.	2409.	0.	62.	30.	1654.90
0.19	0.00	3.24	0.00	0.080	0.080	0.070	0.000	1650.90	2298.94
0.008542	1000.	1060.	1600.	4	0	0	0.00	929.58	3228.52

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	5.82	1661.42	0.00	0.00	1661.48	0.06	6.62	0.01	1658.70
7800.	154.	5411.	2235.	122.	2402.	1605.	151.	89.	1659.00
0.31	1.26	2.25	1.39	0.080	0.080	0.080	0.000	1655.60	2184.62
0.002477	1225.	1380.	2800.	4	0	0	0.00	1741.01	4163.78

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1681.0 5736.0 TYPE= 1 TARGET= 4056.000

Centerline Station at 2440

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
0.73	3.48	1668.78	0.00	0.00	1668.96	0.19	7.44	0.04	1671.30
7800.	0.	7800.	0.	0.	2258.	1.	314.	146.	1668.70
0.44	0.00	3.45	0.24	0.080	0.080	0.080	0.000	1665.30	2528.25
0.012398	1300.	1436.	2400.	4	0	0	0.00	1069.51	3597.76

*SECNO 0.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2107.0 8585.0 TYPE= 1 TARGET= -2107.000

Centerline Station at 2540

0.96	3.40	1676.60	0.00	0.00	1676.64	0.04	7.67	0.01	1676.50
7800.	0.	4573.	3227.	1.	2690.	2146.	446.	225.	1674.60
0.70	0.14	1.70	1.50	0.080	0.080	0.070	0.000	1673.20	2316.57
0.002717	1300.	1312.	2320.	3	0	0	0.00	2833.83	5436.63

*SECNO 1.240

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1900.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	4.06	1679.26	0.00	0.00	1679.29	0.03	2.65	0.00	1687.30
7800.	0.	7755.	45.	0.	5226.	101.	591.	295.	1677.70
0.94	0.00	1.48	0.44	0.080	0.080	0.070	0.000	1675.20	2205.03
0.001697	1100.	1344.	900.	4	0	0	0.00	2444.04	5622.94

*SECNO 1.450

Centerline Station at 3015

1.45	3.33	1681.63	0.00	0.00	1681.68	0.05	2.38	0.00	1679.60

7500.	590.	6522.	688.	323.	3577.	950.	719.	361.	1681.30
1.12	1.21	1.82	0.93	0.080	0.080	0.070	0.000	1678.30	2188.62
0.002845	1300.	1108.	900.	3	0	0	0.00	3057.49	5246.10

*SECNO 1.650

3470 ENCROACHMENT STATIONS= 1700.0 4014.0 TYPE= 1 TARGET= 2314.000

Centerline Station at 3173

1.65	3.83	1684.53	0.00	0.00	1684.61	0.08	2.92	0.01	1683.30
7800.	4623.	308.	2869.	2239.	114.	1215.	810.	409.	1683.10
1.24	2.06	2.70	2.36	0.080	0.060	0.060	0.000	1680.70	2285.46
0.003372	975.	1044.	725.	3	0	0	0.00	1618.66	3904.12

CCHV= 0.100 CEHV= 0.300

*SECNO 1.820

3470 ENCROACHMENT STATIONS= 1791.0 3635.0 TYPE= 1 TARGET= 1855.000

Centerline Station at 3349

1.82	3.13	1690.03	0.00	0.00	1690.36	0.33	5.68	0.08	1689.60
7800.	4441.	3359.	0.	1202.	601.	0.	866.	437.	100000.00
1.29	3.70	5.59	0.00	0.090	0.040	0.080	0.000	1686.90	2505.52
0.015263	850.	948.	1050.	3	0	0	0.00	1115.85	3621.37

*SECNO 2.030

3470 ENCROACHMENT STATIONS= 1240.0 3080.0 TYPE= 1 TARGET= 1840.000

Centerline Station at 2546

2.03	6.71	1694.51	0.00	0.00	1694.61	0.09	4.23	0.02	1691.90
7800.	4048.	1677.	2075.	2573.	381.	1336.	936.	465.	1692.60
1.42	1.57	4.40	1.55	0.100	0.040	0.100	0.000	1687.80	1850.04
0.001881	1050.	1076.	800.	6	0	0	0.00	1215.43	3065.47

*SECNO 2.230

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 901.0 3092.0 TYPE= 1 TARGET= 2192.000

Centerline Station at 2583

2.23	7.53	1695.73	0.00	0.00	1695.87	0.14	1.25	0.01	1696.00
7800.	2209.	4796.	795.	994.	1369.	911.	1026.	493.	1694.00
1.52	2.22	3.50	0.37	0.030	0.035	0.110	0.000	1688.20	1886.73
0.000832	1050.	1052.	1000.	2	0	0	0.00	1176.09	3067.34

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - 50-YEAR (d/s reach)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.006200	0.00	0.5	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	3.86	1647.86	0.00	1647.01	1648.06	0.19	0.00	0.00	1651.40
14000.	55.	12486.	1459.	28.	3426.	684.	0.	0.	1652.50
0.00	1.95	3.64	2.13	0.070	0.070	0.050	0.000	1644.00	2157.33
0.006185	1100.	1172.	1100.	0	0	6	0.00	2023.17	4375.90

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1700.0 4087.0 TYPE= 1 TARGET= 2387.000
Centerline Station at 2200

0.20	4.92	1655.82	0.00	1654.69	1656.06	0.24	7.99	0.02	1657.90
14000.	0.	13921.	79.	0.	3519.	76.	99.	46.	1654.90
0.09	0.00	3.96	1.04	0.080	0.080	0.080	0.000	1650.90	2212.47
0.008842	1000.	1060.	1600.	4	0	0	0.00	1196.58	3409.05

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	7.04	1662.64	0.00	1661.42	1662.72	0.08	6.64	0.02	1658.70
14000.	383.	8271.	5345.	273.	3173.	3083.	310.	121.	1659.00
0.28	1.41	2.61	1.73	0.080	0.080	0.080	0.000	1655.60	2116.82
0.002286	1225.	1380.	2800.	4	0	0	0.00	2073.50	4240.21

*SECNO 0.730

3470 ENCROACHMENT STATIONS= 1680.0 5736.0 TYPE= 1 TARGET= 4056.000
Centerline Station at 2440

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

0.73	4.43	1669.73	0.00	1668.78	1669.99	0.27	7.21	0.06	1671.30
14000.	0.	13765.	235.	0.	3297.	163.	510.	197.	1668.70
0.39	0.00	4.18	1.44	0.080	0.080	0.080	0.000	1665.30	2450.77

0.012037	1300.	1436.	2400.	3	0	0	0.00	1467.67	3918.44

*SECNO 0.980

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2107.0 8585.0 TYPE= 1 TARGET= -2107.000

Centerline Station at 2540

0.98	4.27	1677.47	0.00	1676.60	1677.52	0.05	7.51	0.02	1676.50
14000.	38.	7185.	6777.	60.	3731.	3775.	722.	301.	1674.60
2.62	2.64	1.93	1.80	0.080	0.080	0.070	0.000	1673.20	2212.06
0.002564	1300.	1312.	2320.	4	0	0	0.00	3527.55	5908.28

*SECNO 1.240

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1901.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	4.95	1680.15	0.00	1679.26	1680.20	0.05	2.68	0.00	1687.30
14000.	0.	13104.	896.	0.	6950.	1239.	939.	393.	1677.70
0.81	0.00	1.89	0.72	0.080	0.080	0.070	0.000	1675.20	2187.65
0.001896	1100.	1344.	900.	3	0	0	0.00	3833.26	6072.11

*SECNO 1.450

Centerline Station at 3015

1.45	4.19	1682.49	0.00	1681.63	1682.55	0.06	2.35	0.00	1679.60
14000.	847.	10825.	3128.	555.	4814.	2243.	1133.	477.	1681.30
0.97	1.53	2.08	1.39	0.080	0.080	0.070	0.000	1678.30	2157.47
0.002498	1300.	1108.	900.	3	0	0	0.00	3354.22	5511.69

*SECNO 1.650

Centerline Station at 3173

1.65	4.57	1685.27	0.00	1684.53	1685.36	0.09	2.80	0.01	1683.30
14000.	7416.	459.	6084.	2905.	147.	2685.	1272.	543.	1683.10
1.08	2.55	3.40	2.27	0.080	0.060	0.060	0.000	1680.70	2258.93
0.003797	975.	1044.	725.	2	0	0	0.00	3497.81	5756.74

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TCPWID	ENDST

CCHV= 0.100 CEHV= 0.300

*SECNO 1.820

3470 ENCROACHMENT STATIONS= 1781.0 3635.0 TYPE= 1 TARGET= 1855.000

Centerline Station at 3349

1.82	3.94	1690.84	0.00	1690.03	1691.34	0.50	5.86	0.12	1689.60
14000.	7232.	6768.	0.	1769.	965.	0.	1362.	595.	100000.00
1.12	4.09	7.01	0.00	0.080	0.040	0.080	0.000	1686.90	2463.68
0.012855	850.	948.	1050.	3	0	0	0.00	1160.01	3623.70

*SECNO 2.030

3470 ENCROACHMENT STATIONS= 1241.0 3080.0 TYPE= 1 TARGET= 1840.000

Centerline Station at 2546

2.03	8.04	1695.84	0.00	1694.51	1695.99	0.15	4.62	0.03	1691.90
14000.	7387.	2812.	3801.	3606.	491.	1844.	1462.	623.	1692.60
1.22	2.05	5.73	2.16	0.100	0.040	0.100	0.000	1687.80	1792.09
0.002272	1050.	1076.	800.	6	0	0	0.00	1278.46	3070.55

*SECNO 2.230

3470 ENCROACHMENT STATIONS= 900.0 3092.0 TYPE= 1 TARGET= 2192.000
Centerline Station at 2583

2.23	8.91	1697.11	0.00	1695.73	1697.30	0.18	1.29	0.01	1696.00
14000.	5455.	7057.	1483.	1830.	1764.	1370.	1592.	654.	1694.00
1.31	2.98	4.00	1.39	0.030	0.035	0.100	0.000	1688.20	1807.04
0.000783	1050.	1052.	1000.	3	0	0	0.00	1265.51	3072.55

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - 100-YEAR (d/s reach)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.006200	0.00	0.5	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1525.0 4970.0 TYPE= 1 TARGET= 3445.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2333

0.00	4.77	1648.77	0.00	1647.01	1649.03	0.25	0.00	0.00	1651.40
24000.	134.	18672.	5194.	50.	4400.	1607.	0.	0.	1652.50
0.00	2.65	4.24	3.23	0.070	0.070	0.050	0.000	1644.00	2154.88
0.006182	1100.	1172.	1100.	0	0	5	0.00	2192.67	4504.55

*SECNO 0.200

3470 ENCROACHMENT STATIONS= 1700.0 4087.0 TYPE= 1 TARGET= 2387.000
Centerline Station at 2200

0.20	6.23	1657.13	0.00	1654.69	1657.46	0.33	8.41	0.02	1657.90
24000.	0.	23153.	847.	0.	4958.	443.	152.	55.	1654.90

0.37	0.91	4.67	1.91	0.080	0.080	0.080	0.000	1650.90	2078.59
0.009179	1000.	1060.	1600.	4	0	0	0.00	1562.59	3641.58

*SECNO 0.460

3265 DIVIDED FLOW

Centerline Station at 2803

0.46	8.50	1664.10	0.00	1661.42	1664.20	0.11	6.72	0.02	1658.70
24000.	972.	12255.	10773.	591.	4092.	4999.	479.	144.	1659.00
0.25	1.65	3.00	2.16	0.080	0.080	0.080	0.000	1655.60	2072.38
0.002151	1225.	1380.	2800.	5	0	0	0.00	2258.61	4331.17

*SECNO 0.730

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1680.0 5736.0 TYPE= 1 TARGET= 4056.000

Centerline Station at 2440

0.73	5.60	1670.90	0.00	1668.78	1671.23	0.33	6.96	0.07	1671.30
24000.	21.	22098.	1881.	22.	4661.	845.	793.	238.	1668.70
0.36	0.96	4.74	2.23	0.080	0.080	0.080	0.000	1665.30	2232.87
0.010891	1300.	1436.	2400.	3	0	0	0.00	2075.88	4368.50

*SECNO 0.980

3265 DIVIDED FLOW

Centerline Station at 2540

0.98	5.25	1678.45	0.00	1676.60	1678.52	0.07	7.26	0.03	1676.50
24000.	519.	10826.	12655.	451.	5043.	6129.	1132.	377.	1674.60
0.57	1.15	2.15	2.05	0.080	0.080	0.070	0.000	1673.20	1922.22
0.002436	1300.	1312.	2320.	4	0	0	0.00	4489.57	6446.67

*SECNO 1.240

3470 ENCROACHMENT STATIONS= 1900.0 7740.0 TYPE= 1 TARGET= 5840.000

Centerline Station at 2918

1.24	5.89	1681.09	0.00	1679.26	1681.16	0.07	2.64	0.00	1687.30
24000.	0.	19965.	4035.	0.	8790.	3155.	1447.	485.	1677.70
0.73	0.00	2.27	1.29	0.080	0.080	0.070	0.000	1675.20	2169.26
0.002037	1100.	1344.	900.	3	0	0	0.00	4172.56	6341.82

*SECNO 1.450

Centerline Station at 3015

1.45	5.16	1683.46	0.00	1681.63	1683.54	0.08	2.38	0.00	1679.60
24000.	1596.	15162.	7242.	845.	6195.	3968.	1724.	576.	1681.30
0.86	1.89	2.45	1.82	0.080	0.080	0.070	0.000	1678.30	2130.57
0.002465	1300.	1108.	900.	2	0	0	0.00	3677.70	5808.27

*SECNO 1.650

Centerline Station at 3173

1.65	5.41	1686.11	0.00	1684.53	1686.23	0.12	2.67	0.01	1683.30
24000.	10611.	716.	12673.	3671.	184.	4975.	1925.	647.	1683.10
0.95	2.89	3.89	2.55	0.080	0.060	0.060	0.000	1680.70	2229.31
0.003705	975.	1044.	725.	2	0	0	0.00	3885.22	6114.52

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 1.100 CEHV= 0.300
*SECNO 1.820

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1781.0 3635.0 TYPE= 1 TARGET= 1855.000
Centerline Station at 3349

1.82	4.74	1691.64	0.00	1690.03	1692.48	0.83	6.04	0.21	1689.60
24000.	11958.	12042.	0.	2414.	1326.	0.	2061.	705.	100000.00
0.99	4.95	9.08	0.00	0.080	0.040	0.080	0.000	1686.90	2290.70
0.014235	850.	948.	1050.	3	0	0	0.00	1292.91	3625.99

*SECNO 2.330

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1241.0 3080.0 TYPE= 1 TARGET= 1840.000
Centerline Station at 2646

2.03	9.65	1697.45	0.00	1694.51	1697.67	0.22	5.13	0.06	1691.90
24000.	13158.	4430.	6412.	5468.	625.	2472.	2203.	740.	1692.60
1.08	2.41	7.09	2.59	0.100	0.040	0.100	0.000	1687.80	1319.14
0.002527	1050.	1076.	800.	6	0	0	0.00	1693.91	3076.73

*SECNO 2.230

3470 ENCROACHMENT STATIONS= 901.0 3092.0 TYPE= 1 TARGET= 2192.000
Centerline Station at 2583

2.23	10.56	1698.76	0.00	1695.73	1699.00	0.25	1.33	0.01	1696.00
24000.	11135.	10319.	2546.	2992.	2230.	1921.	2390.	777.	1694.00
1.15	3.72	4.63	1.33	0.030	0.035	0.100	0.000	1688.20	1691.98
0.000765	1050.	1052.	1000.	3	0	0	0.00	1386.74	3078.71

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	1644.00	7800.00	1647.01	0.00	1647.15	61.87	3.01	2627.27	991.65
0.000	0.00	0.00	0.00	1644.00	14000.00	1647.86	0.00	1648.06	61.85	3.64	4138.28	1780.21
0.000	0.00	0.00	0.00	1644.00	24000.00	1648.77	0.00	1649.03	61.82	4.24	6057.65	3052.56
0.200	1060.00	0.00	0.00	1650.90	7800.00	1654.69	0.00	1654.85	85.42	3.24	2408.53	843.96
0.200	1060.00	0.00	0.00	1650.90	14000.00	1655.82	0.00	1656.06	88.42	3.96	3594.91	1488.87
0.200	1060.00	0.00	0.00	1650.90	24000.00	1657.13	0.00	1657.46	91.79	4.67	5400.47	2505.01
0.460	1380.00	0.00	0.00	1655.60	7800.00	1661.42	0.00	1661.48	24.77	2.25	4129.24	1567.28
0.460	1380.00	0.00	0.00	1655.60	14000.00	1662.64	0.00	1662.72	22.86	2.61	6528.55	2928.15
0.460	1380.00	0.00	0.00	1655.60	24000.00	1664.10	0.00	1664.20	21.51	3.00	9681.06	5175.02
0.730	1436.00	0.00	0.00	1665.30	7800.00	1668.78	0.00	1668.96	123.98	3.45	2259.38	700.50
0.730	1436.00	0.00	0.00	1665.30	14000.00	1669.73	0.00	1669.99	120.37	4.18	3459.36	1276.03
0.730	1436.00	0.00	0.00	1665.30	24000.00	1670.90	0.00	1671.23	108.91	4.74	5528.15	2299.75
0.980	1312.00	0.00	0.00	1673.20	7800.00	1676.60	0.00	1676.64	27.17	1.70	4836.34	1496.49
0.980	1312.00	0.00	0.00	1673.20	14000.00	1677.47	0.00	1677.52	25.64	1.93	7565.87	2765.08
0.980	1312.00	0.00	0.00	1673.20	24000.00	1678.45	0.00	1678.52	24.36	2.15	11622.53	4862.76
1.240	1344.00	0.00	0.00	1675.20	7800.00	1679.26	0.00	1679.29	16.97	1.48	5327.73	1893.65
1.240	1344.00	0.00	0.00	1675.20	14000.00	1680.15	0.00	1680.20	18.96	1.89	8188.39	3215.35
1.240	1344.00	0.00	0.00	1675.20	24000.00	1691.09	0.00	1681.16	20.37	2.27	11945.70	5317.95
1.450	1108.00	0.00	0.00	1678.30	7800.00	1681.63	0.00	1681.68	28.45	1.82	4849.94	1462.24
1.450	1108.00	0.00	0.00	1678.30	14000.00	1682.49	0.00	1682.55	24.98	2.08	7617.11	2801.18
1.450	1108.00	0.00	0.00	1678.30	24000.00	1683.46	0.00	1683.54	24.65	2.45	11008.81	4834.20
1.650	1044.00	0.00	0.00	1680.70	7800.00	1684.53	0.00	1684.61	33.72	2.70	3569.25	1343.27
1.650	1044.00	0.00	0.00	1680.70	14000.00	1685.27	0.00	1685.36	37.97	3.40	5736.67	2272.06
1.650	1044.00	0.00	0.00	1680.70	24000.00	1686.11	0.00	1686.23	37.05	3.89	8830.21	3942.83

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.820	948.00	0.00	0.00	1686.90	7800.00	1690.03	0.00	1690.36	152.63	5.59	1802.59	631.36
1.820	948.00	0.00	0.00	1686.90	14000.00	1690.84	0.00	1691.34	128.55	7.01	2734.37	1234.80
1.820	948.00	0.00	0.00	1686.90	24000.00	1691.64	0.00	1692.48	142.35	9.08	3739.85	2011.54
2.030	1076.00	0.00	0.00	1687.80	7800.00	1694.51	0.00	1694.61	18.81	4.40	4290.06	1798.60
2.030	1076.00	0.00	0.00	1687.80	14000.00	1695.84	0.00	1695.99	22.72	5.73	5941.75	2937.36
2.030	1076.00	0.00	0.00	1687.80	24000.00	1697.45	0.00	1697.67	25.27	7.09	8564.96	4774.00
2.230	1052.00	0.00	0.00	1688.20	7800.00	1695.73	0.00	1695.87	8.32	3.50	3274.15	2703.46
2.230	1052.00	0.00	0.00	1688.20	14000.00	1697.11	0.00	1697.30	7.83	4.00	4963.63	5004.09
2.230	1052.00	0.00	0.00	1688.20	24000.00	1698.76	0.00	1699.00	7.65	4.63	7143.50	8677.34

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4-MAY-88 18:05:55 PAGE 17

LAS VEGAS WASH - 10-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	7800.00	1647.01	0.00	0.00	0.00	1352.06	0.00
0.000	14000.00	1647.86	0.86	0.00	0.86	2023.17	0.00

0.000	24000.00	1648.77	0.91	0.00	1.77	2192.67	0.00
0.200	7800.00	1654.69	0.00	7.68	0.00	929.58	1060.00
0.200	14000.00	1655.82	1.13	7.96	1.13	1196.58	1060.00
0.200	24000.00	1657.13	1.31	8.36	2.44	1562.99	1060.00
0.460	7800.00	1661.42	0.00	6.73	0.00	1741.01	1380.00
0.460	14000.00	1662.64	1.22	6.82	1.22	2073.50	1380.00
0.460	24000.00	1664.10	1.46	6.97	2.68	2258.61	1380.00
0.730	7800.00	1668.78	0.00	7.36	0.00	1069.51	1436.00
0.730	14000.00	1669.73	0.95	7.08	0.95	1467.67	1436.00
0.730	24000.00	1670.90	1.18	6.80	2.12	2075.88	1436.00
0.980	7800.00	1676.60	0.00	7.83	0.00	2833.83	1312.00
0.980	14000.00	1677.47	0.87	7.74	0.87	3527.55	1312.00
0.980	24000.00	1678.45	0.98	7.55	1.85	4489.97	1312.00
1.240	7800.00	1679.26	0.00	2.66	0.00	2444.04	1344.00
1.240	14000.00	1680.15	0.89	2.68	0.89	3833.26	1344.00
1.240	24000.00	1681.09	0.94	2.64	1.83	4172.56	1344.00
1.450	7800.00	1681.63	0.00	2.37	0.00	3057.49	1108.00
1.450	14000.00	1682.49	0.86	2.34	0.86	3354.22	1108.00
1.450	24000.00	1683.46	0.97	2.39	1.83	3677.70	1108.00
1.650	7800.00	1684.53	0.00	2.90	0.00	1618.66	1044.00
1.650	14000.00	1685.27	0.74	2.77	0.74	3497.81	1044.00
1.650	24000.00	1686.11	0.84	2.65	1.58	3885.22	1044.00
1.820	7800.00	1690.03	0.00	5.50	0.00	1115.85	948.00
1.820	14000.00	1690.84	0.81	5.57	0.81	1160.01	948.00
1.820	24000.00	1691.64	0.81	5.54	1.61	1292.91	948.00
2.030	7800.00	1694.51	0.00	4.48	0.00	1215.43	1076.00
2.030	14000.00	1695.84	1.32	5.00	1.32	1278.46	1076.00
2.030	24000.00	1697.45	1.61	5.80	2.93	1693.81	1076.00
2.230	7800.00	1695.73	0.00	1.22	0.00	1176.09	1052.00
2.230	14000.00	1697.11	1.38	1.28	1.33	1265.51	1052.00
2.230	24000.00	1698.76	1.64	1.31	3.02	1386.74	1052.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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     4
  0.15  FULL FLOW
  0.94  CL3689 FULL FLOW X-SECTION
  1.04  CL2831 MAIN BRANCH FLOWS FROM BHY X1.34
  1.17  CL2732 MAIN BRANCH FLOWS
T1      Clark County Regional Flood Control District/Corps of Engineers
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      LVWDCJML.DAT              25-YR Flood Analysis - July 1987
J1            2                      -1                                1597
J2     1              -1
J3   150
NC  .060     .060     .080       .1       .3
ST      4    5400    10000    18500    53000
X1   0.15      12     9360    10970
GR   1604    8150     1600     9360     1596     8840     1596     8930     1592     9140
GR   1592    9650   1592.5    10000     1596    10970     1600    11280     1600    11700
GR   1604   12980     1608    12210
X1   0.94      14     3524     3961     3200     2800     4150
X4      1    1620     5000
GR   1624       0     1620      530     1616     1100     1616     2560     1619     3445
GR1621.2    3524   1619.0     3689   1619.5     3769   1622.3     3877   1619.0     3921
GR1622.6    3951   1621.8     3999   1620.7     4046     1624     6000
NC  .060     .060     .070       .1       .3
ST      4     734     1096     1253     2885
X1   1.04      20     2440     2888      580      515      540
X4      1    1624     3700
GR   1632    1530     1628     1860     1628     1860     1628     1860     1628     1860
GR1627.8    2030   1626.5     2117   1626.9     2295   1624.0     2440   1623.6     2499
GR1623.8    2612   1623.5     2737   1622.2     2831   1623.8     2888   1623.8     2981
GR1623.8    3034   1623.5     3093     1624     3278     1628     4180   1630.0     4420
X1   1.17      22     2536     2797      740      710      720
GR   1636    1300     1636     1300     1636     1300     1636     1300     1636     1300
GR1630.8    2000   1632.1     2047   1630.1     2109   1629.3     2174   1629.8     2284
GR1627.7    2326   1630.1     2360   1630.3     2460   1631.5     2536   1628.6     2662
GR1628.0    2732   1630.4     2797   1627.8     2947   1630.4     3037     1630     3500
GR   1632    3800     1633     3859
EJ
T1      Clark County Regional Flood Control District/Corps of Engineers
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      LVWDCJML.DAT              50-YR Flood Analysis - July 1987
J1            3                      -1                                1597
J2     2              -1
T1      Clark County Regional Flood Control District/Corps of Engineers
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      LVWDCJML.DAT              100-YR Flood Analysis - July 1987
J1            4                      -1                                1597
J2     3              -1
T1      Clark County Regional Flood Control District/Corps of Engineers
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      LVWDCJML.DAT              500-YR Flood Analysis - July 1987
J1            5                      -1                                1597
J2    15              -1


ER
EOF..
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Sec 0.15 - 1.17

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4
0.15  FULL FLOW
0.94  CL3689 FULL FLOW X-SECTION
1.04  CL2831 MAIN BRANCH FLOWS FROM BHY X1.34
1.17  CL2732 MAIN BRANCH FLOWS
T1    Clark County Regional Flood Control District/Corps of Engineers
T2    James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3    JML_NONDAM.DAT    Nondamaging Flow Analysis - February 1988
J1          2                -1                                    1597
J2    1           -1
J3    150
NC    .060    .080     .1      .3
QT    3   48000   50000   52000
X1    0.15    12      8360    10970
X3    10
GR    1604    8150    1600    8360    1596    8840    1596    8930    1592    9140
GR    1592    9650    1592.5  10000   1596    10970   1600    11280   1600    11700
GR    1604    12080   1608    12210
QT    3   18400   20000   22000
X1    0.94    14      3524    3961    3200    2800    4150
X3    10
X4    1   1620    5000
GR    1624    0       1620    530     1616    1100    1616    2560    1619    3445
GR1621.2  3524  1619.0  3689  1619.5  3769  1622.0  3877  1619.0  3921
GR1622.6  3961  1621.8  3999  1620.7  4046  1624    6000
NC    .060    .060    .070    .1      .3
QT    3   700     800     900
X1    1.04    20      2440    2888    580     515     540
X3    10
X4    1   1624    3700
GR    1632    1530    1628    1860    1628    1860    1628    1860    1628    1860
GR1627.8  2000  1626.5  2117  1626.9  2295  1624.0  2440  1623.6  2499
GR1623.8  2602  1623.5  2737  1622.2  2831  1623.8  2888  1623.8  2981
GR1623.8  3034  1623.5  3093  1624    3278  1628    4180  1630.0  4420
QT    3   1300    1400    1500
X1    1.17    22      2536    2797    740     710     720
X3    10
GR    1636    1300    1636    1300    1636    1300    1636    1300    1636    1300
GR1630.8  2000  1632.1  2047  1630.1  2105  1629.3  2174  1629.8  2284
GR1627.7  2326  1630.1  2360  1630.3  2460  1631.5  2536  1628.6  2662
GR1628.0  2732  1630.4  2797  1627.8  2947  1630.4  3037  1630    3500
GR    1632    3800    1633    3850
EJ
T1    Clark County Regional Flood Control District/Corps of Engineers
T2    James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3    JML_NONDAM.DAT Nondamaging Flow Analysis - February 1988
J1          3                -1                                    1597
J2    2           -1
T1    Clark County Regional Flood Control District/Corps of Engineers
T2    James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3    JML_NONDAM.DAT    Nondamaging Flow Analysis - February 1988
J1          4                -1                                    1597
J2    15          -1


ER
EOF..
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95

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  13-FEB-88 TIME   20:14:48          *
 *************************************************
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 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  THE HYDROLOGIC ENGINEERING CENTER  *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616            *
 *  (916) 440-2105 (FTS) 448-2105      *
 ***************************************
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Sec 0.15 - 1.17

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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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1
13-FEB-88 20:14:49

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 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************

C
T1       Clark County Regional Flood Control District/Corps of Engineers
T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3       JML_NONDAM.DAT    Nondamaging Flow Analysis - February 1988

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  -1.000000      0.00      0.0       0.  1597.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.060     0.060     0.080     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       3.000 48000.000 50000.000 52000.000     0.000     0.000     0.000     0.000     0.000     0.000
           FULL FLOW
X1       0.150    12.000  8360.000 10970.000     0.000     0.000     0.000     0.000     0.000     0.000
X3      10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    1604.000  8150.000  1600.000  8360.000  1596.000  8840.000  1596.000  8930.000  1592.000  9140.000
GR    1592.000  9650.000  1592.500 10000.000  1596.000 10970.000  1600.000 11280.000  1600.000 11700.000
GR    1604.000 12080.000  1608.000 12210.000     0.000     0.000     0.000     0.000     0.000     0.000

QT       3.000 18400.000 20000.000 22000.000     0.000     0.000     0.000     0.000     0.000     0.000
           CL3689 FULL FLOW X-SECTION
X1       0.940    14.000  3524.000  3961.000  3200.000  2800.000  4150.000     0.000     0.000     0.000
```

X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1620.000	5000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1624.000	0.000	1620.000	530.000	1616.000	1100.000	1615.000	2560.000	1619.000	3445.000
GR	1621.200	3524.000	1619.000	3699.000	1619.500	3769.000	1622.000	3877.000	1619.000	3921.000
GR	1622.600	3961.000	1621.800	3999.000	1620.700	4046.000	1624.000	6000.000	0.000	0.000
NC	0.360	0.060	0.070	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	3.000	700.000	800.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000

CL2831 MAIN BRANCH FLOWS FROM PHY XI.34

X1	1.040	20.000	2440.000	2888.000	580.000	515.000	540.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1624.000	3700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1632.000	1530.000	1628.000	1860.000	1628.000	1860.000	1628.000	1860.000	1628.000	1860.000
GR	1627.800	2000.000	1626.500	2117.000	1626.900	2295.000	1624.000	2440.000	1623.600	2455.000
GR	1623.300	2602.000	1623.500	2737.000	1622.200	2831.000	1623.800	2888.000	1623.800	2981.000
GR	1623.300	3034.000	1623.500	3093.000	1624.000	3278.000	1628.000	4180.000	1630.000	4420.000

1

QT	3.000	1300.000	1400.000	1500.000	0.000	0.000	0.000	0.000	0.000	0.000

CL2732 MAIN BRANCH FLOWS

X1	1.170	22.000	2536.000	2797.000	740.000	710.000	720.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1636.000	1300.000	1636.000	1300.000	1636.000	1300.000	1636.000	1300.000	1636.000	1300.000
GR	1630.300	2000.000	1632.100	2047.000	1630.100	2109.000	1629.300	2174.000	1629.800	2284.000
GR	1627.700	2326.000	1630.100	2360.000	1630.300	2460.000	1631.500	2536.000	1628.600	2662.000
GR	1628.000	2732.000	1630.400	2797.000	1627.800	2947.000	1630.400	3037.000	1630.000	3500.000
GR	1632.000	3800.000	1633.000	3850.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XAR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1600.00 ELREA= 1596.00

FULL FLOW

0.15	3.88	1595.88	1595.38	1597.00	1597.19	1.31	0.00	0.00	1600.00
48000.	0.	48000.	0.	0.	5235.	0.	0.	0.	1596.00
0.00	0.00	9.17	0.00	0.060	0.080	0.000	0.000	1552.00	8936.11
0.067632	0.	0.	0.	0	14	0	0.00	2001.61	10937.73

3
*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1824.682 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1621.20 ELREA= 1622.60

CL3689 FULL FLOW X-SECTION

0.94	2.25	1621.25	1621.25	0.00	1621.28	0.03	14.15	0.13	1621.20
18400.	18183.	217.	0.	13021.	480.	0.	751.	229.	1622.60
0.74	1.40	0.45	0.00	0.060	0.080	0.060	0.000	1619.00	364.76
0.000431	3200.	4150.	2800.	0	25	0	0.00	3537.64	3945.97

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1624.00 ELREA= 1623.80

CL2831 MAIN BRANCH FLOWS FROM RHY X1.34

1.04	1.64	1623.84	1623.84	0.00	1624.00	0.16	0.26	0.04	1624.00
700.	0.	624.	76.	0.	186.	39.	842.	257.	1623.80
0.79	0.00	3.35	1.93	0.060	0.070	0.060	0.000	1622.20	2463.17
0.074449	580.	540.	515.	20	13	0	0.00	756.70	3219.87

*SECNO 1.170

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1631.50 ELREA= 1630.40

CL2732 MAIN BRANCH FLOWS

1.17	2.42	1630.42	0.00	0.00	1630.47	0.05	6.46	0.01	1631.50
1300.	0.	561.	739.	0.	300.	434.	849.	272.	1630.40
0.90	0.00	1.87	1.70	0.060	0.070	0.060	0.000	1628.00	2582.82
0.004937	740.	720.	710.	9	0	0	0.00	980.56	3563.37

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 JML_NONDAM.DAT Nondamaging Flow Analysis - February 1988

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

   *PROF 2

   CCHV=   0.100  CEHV=   0.300
   *SECNO 0.150
   3720 CRITICAL DEPTH ASSUMED

   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1600.00 ELREA=     1596.00

              FULL FLOW
        0.15      3.99  1595.99  1595.99  1597.00  1597.30     1.31     0.00     0.00  1600.00
      500 00.        0.   50000.       0.       0.    5451.       0.       0.       0.  1596.00
         0.00      0.00     9.17     0.00    0.060    0.080    0.060    0.000  1592.00  8930.49
   0.065629         0.       0.       0.        0       14        0     0.00  2036.94 10967.43
   *SECNO 0.940
   3840 SECTION NOT HIGH ENOUGH  1818.012  1674.000  1616.000  1674.000     0.000         2

   3265 DIVIDED FLOW


   3301 HV CHANGED MORE THAN HVINS

   7185 MINIMUM SPECIFIC ENERGY
   3720 CRITICAL DEPTH ASSUMED

   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1621.20 ELREA=     1622.60

            CL3689 FULL FLOW X-SECTION
        0.94      2.21  1621.21  1621.21     0.00  1621.24     0.04    15.83     0.13  1621.20
      200 00.   19772.      228.       3.  12889.      464.       1.      755.      231.  1622.60
         0.67      1.53     0.49     0.00    0.060    0.080    0.060    0.000  1619.00   370.33
   0.000526      3200.    4150.    2800.        0       30        0     0.00  3529.17  3945.50
   CCHV=   0.100  CEHV=   0.300
   *SECNO 1.040
   3685 20 TRIALS ATTEMPTED WSEL,CWSEL
   3693 PROBABLE MINIMUM SPECIFIC ENERGY
   3720 CRITICAL DEPTH ASSUMED
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1624.00 ELREA=     1623.80

            CL2831 MAIN BRANCH FLOWS FROM RHY X1.34
        1.04      1.67  1623.87  1623.87     0.00  1624.05     0.18     0.32     0.04  1624.00
      800.         0.      698.     102.        0.      199.      49.      845.      259.  1623.80
         0.72      0.00     3.51     2.09    0.060    0.070    0.060    0.000  1622.20  2458.87
   0.076095       580.     540.     515.       20       14        0     0.00   771.80  3230.67
   *SECNO 1.170
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1631.50 ELREA= 1630.40

CL2732 MAIN BRANCH FLOWS

1.17	2.48	1630.48	0.00	0.00	1630.53	0.05	6.47	0.01	1631.50
1400.	0.	597.	813.	0.	313.	481.	854.	273.	1630.40
0.33	0.00	1.88	1.59	0.060	0.070	0.060	0.000	1628.00	2580.21
0.004782	740.	720.	710.	9	8	0	0.00	992.15	3572.36

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 JML_NONDAM.DAT Noncamaging Flow Analysis - February 1988

J1

ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
0.	4.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000

J2

NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IPW	CHNIM	ITRACE
15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1600.00 ELREA= 1596.00

FULL FLOW

0.15	4.06	1596.06	1596.16	1597.00	1597.40	1.34	0.00	0.00	1600.00
52000.	0.	52000.	0.	0.	5606.	0.	0.	0.	1596.00
0.00	0.00	5.27	0.56	0.060	0.080	0.060	0.000	1592.00	8832.32
0.068931	0.	0.	0.	0	14	0	0.00	2142.63	10974.96

*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1829.259 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1621.20 ELREA= 1622.60

CL3638 FULL FLOW X-SECTION

0.94	2.25	1621.25	1621.25	0.00	1621.29	0.04	17.15	0.13	1621.20
22000.	21741.	259.	0.	13017.	479.	1.	768.	236.	1622.60
0.62	1.67	0.54	0.00	0.060	0.080	0.060	0.000	1619.00	364.96
0.000617	3200.	4150.	2800.	0	30	0	0.00	3537.34	3945.95

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1624.00 ELREA= 1623.80

CL2831 MAIN BRANCH FLOWS FROM BHY X1.34

1.04	1.68	1623.88	1623.83	0.00	1624.09	0.21	0.37	0.05	1624.00
900.	0.	782.	118.	0.	201.	51.	859.	264.	1623.80
0.66	0.00	3.88	2.31	0.060	0.070	0.060	0.000	1622.20	2458.04
0.091976	580.	540.	515.	20	13	0	0.00	774.70	3232.74

*SECNO 1.170
3840 SECTION NOT HIGH ENOUGH 1690.401 1683.000 1627.700 1686.000 1623.213 2

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1631.50 ELREA= 1630.40

CL2732 MAIN BRANCH FLOWS

1.17	2.55	1630.55	1630.11	0.00	1630.60	0.05	6.49	0.02	1631.50
1500.	0.	611.	889.	0.	327.	530.	868.	279.	1630.40
0.77	0.00	1.87	1.68	0.060	0.070	0.050	0.000	1628.00	2577.42
0.004547	740.	720.	710.	12	11	0	0.00	1004.57	3581.99

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

JML_NONDAM.DAT Nonda

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	0.150	0.00	0.00	0.00	1592.00	48000.00	1595.88	1595.88	1597.19	676.32	9.17	5234.67	1845.72

*	0.150	0.00	0.00	0.00	1592.00	50000.00	1595.99	1595.99	1597.30	656.29	9.17	5451.09	1951.74
*	0.150	0.00	0.00	0.00	1592.00	52000.00	1596.06	1596.06	1597.40	689.31	9.27	5606.65	1980.59
*	0.940	4150.00	0.00	0.00	1619.00	18400.00	1621.25	1621.25	1621.28	4.31	0.45	13501.41	8863.63
*	0.940	4150.00	0.00	0.00	1619.00	20000.00	1621.21	1621.21	1621.24	5.26	0.49	13353.03	8720.70
*	0.940	4150.00	0.00	0.00	1619.00	22000.00	1621.25	1621.25	1621.29	6.17	0.54	13496.23	8858.63
*	1.040	540.00	0.00	0.00	1622.20	700.00	1623.84	1623.84	1624.00	744.49	3.35	225.86	25.65
*	1.040	540.00	0.00	0.00	1622.20	800.00	1623.87	1623.87	1624.05	760.95	3.51	248.16	29.00
*	1.040	540.00	0.00	0.00	1622.20	900.00	1623.88	1623.88	1624.09	919.76	3.88	252.50	29.68
	1.170	720.00	0.00	0.00	1628.00	1300.00	1630.42	0.00	1630.47	49.37	1.87	733.92	185.01
	1.170	720.00	0.00	0.00	1628.00	1400.00	1630.48	0.00	1630.53	47.82	1.88	793.03	202.46
	1.170	720.00	0.00	0.00	1628.00	1500.00	1630.55	1630.11	1630.60	45.47	1.87	857.14	222.46

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	0.150	48000.00	1595.88	0.00	0.00	-1.12	2001.61	0.00
*	0.150	50000.00	1595.99	0.11	0.00	-1.01	2036.94	0.00
*	0.150	52000.00	1596.06	0.07	0.00	-0.94	2142.63	0.00
*	0.940	18400.00	1621.25	0.00	25.36	0.00	3537.64	4150.00
*	0.940	20000.00	1621.21	-0.04	25.21	0.00	3529.17	4150.00
*	0.940	22000.00	1621.25	0.04	25.18	0.00	3537.34	4150.00
*	1.040	700.00	1623.84	0.00	2.60	0.00	756.70	540.00
*	1.040	800.00	1623.87	0.03	2.67	0.01	771.80	540.00
*	1.040	900.00	1623.88	0.01	2.63	0.00	774.70	540.00
	1.170	1300.00	1630.42	0.00	6.58	0.00	980.56	720.00
	1.170	1400.00	1630.48	0.06	6.61	0.00	992.15	720.00
	1.170	1500.00	1630.55	0.07	6.67	0.00	1004.57	720.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 0.150 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.150 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.150 PROFILE= 3 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.940 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.940 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.940 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.940 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.940 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.940 PROFILE= 3 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1.040 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.040 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.040 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1.040 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.040 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1.040 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=    1.040   PROFILE= 3  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    1.040   PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    1.040   PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

1
  13-FEB-88    20:15:09                                                    PAGE    1


  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************



EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  17-NOV-87 TIME   11:49:51          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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see 0.15 - 1.17

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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X          XXXXX   XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX    XXXXX            XXXXXXX
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17-NOV-87 11:49:52


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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************
```

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C
T1       Clark County Regional Flood Control District/Corps of Engineers
T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3       LVWDCJML.DAT              25-YR Flood Analysis - July 1987

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        0.        0.  -1.000000      0.00      0.0       0.  1597.000     0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3   VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.060     0.060     0.030     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  5400.000 10000.000 18500.000 60000.000     0.000     0.000     0.000     0.000     0.000
          FULL FLOW
X1      0.150    12.000  8360.000 10970.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1604.000  8150.000  1600.000  8360.000  1596.000  8840.000  1596.000  8930.000  1592.000  9140.000
GR   1592.000  9650.000  1592.500 10000.000  1596.000 10970.000  1600.000 11280.000  1600.000 11700.000
GR   1604.000 12080.000  1608.000 12210.000     0.000     0.000     0.000     0.000     0.000     0.000

          CL3689 FULL FLOW X-SECTION
X1      0.940    14.000  3524.000  3961.000  3200.000  2800.000  4150.000     0.000     0.000     0.000
X4      1.000  1620.000  5000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1624.000     0.000  1620.000   530.000  1616.000  1100.000  1616.000  2560.000  1619.000  3445.000
```

GR	1621.200	3524.000	1619.000	3689.000	1619.500	3769.000	1622.000	3877.000	1619.000	3921.000
GR	1622.500	3961.000	1621.800	3999.000	1620.700	4046.000	1624.000	6000.000	0.000	0.000
NC	0.060	0.060	0.070	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	4.000	734.000	1096.000	1253.000	2885.000	0.000	0.000	0.000	0.000	0.000

CL2831 MAIN BRANCH FLOWS FROM BHY X1.34

X1	1.040	20.000	2440.000	2888.000	580.000	515.000	540.000	0.000	0.000	0.000
X4	1.000	1624.000	3700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1632.000	1530.000	1628.000	1860.000	1628.000	1860.000	1628.000	1860.000	1628.000	1860.000
GR	1627.300	2000.000	1626.500	2117.000	1626.900	2295.000	1624.000	2440.000	1623.600	2499.000
GR	1623.800	2402.000	1623.500	2737.000	1622.200	2831.000	1623.800	2888.000	1623.800	2981.000
GR	1623.300	3034.000	1623.500	3093.000	1624.000	3278.000	1628.000	4180.000	1630.000	4420.000

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CL2732 MAIN BRANCH FLOWS

X1	1.170	22.000	2536.000	2797.000	740.000	710.000	720.000	0.000	0.000	0.000
GR	1636.300	1300.000	1635.900	1300.000	1636.000	1300.000	1636.000	1300.000	1636.000	1300.000
GR	1630.800	2000.000	1632.100	2047.000	1630.100	2109.000	1629.300	2174.000	1629.800	2284.000
GR	1627.700	2326.000	1630.100	2360.000	1630.300	2460.000	1631.500	2536.000	1628.600	2662.000
GR	1628.000	2732.000	1630.400	2797.000	1627.800	2947.000	1630.400	3037.000	1630.000	3500.000
GR	1632.000	3800.000	1633.000	3950.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

•PROF 1

CCHV= 0.100 CEHV= 0.300
•SECNO 0.150
3720 CRITICAL DEPTH ASSUMED
FULL FLOW

0.15	1.15	1593.15	1593.15	1597.00	1593.61	0.46	0.00	0.00	1600.00
5400.	0.	5400.	0.	0.	994.	0.	0.	0.	1596.00
0.00	0.00	5.43	0.00	0.060	0.080	0.060	0.000	1592.00	9079.67
0.097992	0.	0.	0.	0	16	0	0.00	1100.24	10179.91

)
•SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1924.655 1674.000 1616.000 1674.000 0.000 2
CL3589 FULL FLOW X-SECTION

0.94	1.83	1617.83	1616.72	0.00	1617.87	0.04	24.22	0.04	1621.20
5400.	5400.	0.	0.	3398.	0.	0.	172.	135.	1622.60
0.64	1.59	0.00	0.00	0.060	0.080	0.060	0.000	1616.00	839.61
0.002175	3200.	4150.	2803.	7	14	0	0.00	2259.43	3099.04

)
CCHV= 0.100 CEHV= 0.300
•SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CL2831 MAIN BRANCH FLOWS FROM BHY X1.34

1.04	1.65	1623.85	1623.85	0.00	1624.02	0.16	1.50	0.04	1624.00
734.	0.	649.	85.	0.	191.	43.	196.	155.	1623.80
0.69	0.00	3.39	1.97	0.060	0.070	0.060	0.000	1622.20	2461.44
0.074091	580.	540.	515.	20	10	0	0.00	762.76	3224.21

)
•SECNO 1.170

3265 DIVIDED FLOW

CL2732 MAIN BRANCH FLOWS

1.17	2.24	1629.94	0.30	0.00	1629.97	0.03	5.94	0.01	1631.50
734.	172.	260.	302.	147.	206.	213.	203.	166.	1630.40
0.84	1.17	1.25	1.42	0.060	0.070	0.060	0.000	1627.70	2121.27
0.002972	740.	720.	710.	9	0	0	0.00	616.35	3021.39

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3 LVWDCJML.DAT 50-YR Flood Analysis - July 1987

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED
FULL FLOW

0.15	1.64	1593.64	1593.54	1597.00	1594.27	0.63	0.00	0.00	1600.00
10000.	0.	10000.	0.	0.	1569.	0.	0.	0.	1596.00
0.00	0.00	6.37	0.00	0.060	0.080	0.050	0.000	1592.00	9054.07
0.087896	0.	0.	0.	0	16	0	0.00	1260.96	10315.03

*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1890.956 1674.000 1616.000 1674.000 0.000 2

3301 HV CHANGED MORE THAN HVINS

CL3689 FULL FLOW X-SECTION

0.94	2.54	1618.54	1617.37	0.00	1619.60	0.06	24.28	0.06	1621.20
10000.	10000.	0.	0.	5126.	0.	0.	263.	155.	1622.60
0.52	1.95	0.00	0.00	0.060	0.080	0.060	0.000	1616.00	737.71
0.002218	3200.	4150.	2800.	6	14	0	0.00	2572.28	3310.00

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CL2831 MAIN BRANCH FLOWS FROM RHY X1.34									
1.04	1.78	1623.98	1623.98	0.00	1624.16	0.18	1.46	0.04	1624.00
1096.	0.	886.	210.	0.	244.	97.	299.	177.	1623.80
0.57	0.00	3.63	2.42	0.060	0.070	0.060	0.000	1622.20	2443.60
0.065020	580.	540.	515.	20	16	0	0.00	825.37	3268.97

*SECNO 1.170

3265 DIVIDED FLOW

CL2732 MAIN BRANCH FLOWS									
1.17	2.52	1630.22	0.00	0.00	1630.25	0.03	6.07	0.02	1631.50
1096.	296.	364.	437.	218.	258.	303.	308.	192.	1630.40
0.71	1.35	1.41	1.44	0.060	0.070	0.060	0.000	1627.70	2105.24
0.003139	740.	720.	710.	9	0	0	0.00	1028.87	3533.20

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3 LVWDCJML.DAT 100-YR Flood Analysis - July 1987

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED

FULL FLOW									
0.15	2.31	1594.31	1594.31	1597.00	1595.17	0.85	0.00	0.00	1600.00
18500.	0.	18500.	0.	0.	2495.	0.	0.	0.	1596.00
0.00	0.00	7.41	0.00	0.060	0.080	0.060	0.000	1592.00	9018.65
0.079641	0.	0.	0.	0	13	0	0.00	1483.37	10502.02

*SECNO 0.940
3840 SECTION NOT HIGH ENOUGH 1863.735 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CL3689 FULL FLOW X-SECTION

0.94	3.48	1619.48	1617.57	0.09	1619.57	0.09	24.33	0.08	1621.20
18500.	18490.	10.	0.	7708.	30.	0.	403.	182.	1622.60
0.43	2.40	0.34	0.33	0.060	0.080	0.060	0.000	1616.00	603.70
0.002259	3200.	4150.	2800.	6	14	0	0.00	2984.54	3926.36

)
CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CL2831 MAIN BRANCH FLOWS FROM BHY X1.34

1.04	1.82	1624.02	1624.32	0.00	1624.21	0.19	1.40	0.03	1624.00
1253.	0.	982.	271.	0.	263.	110.	457.	209.	1623.80
0.47	0.06	3.74	2.47	0.060	0.070	0.060	0.000	1622.20	2439.16
0.063372	580.	540.	515.	20	11	0	0.00	1262.84	3702.31

)
*SECNO 1.170
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

3265 DIVIDED FLOW

CL2732 MAIN BRANCH FLOWS

1.17	2.61	1630.31	0.00	0.00	1630.34	0.03	6.12	0.02	1631.50
1253.	350.	403.	500.	249.	277.	355.	468.	229.	1630.40
0.61	1.40	1.45	1.41	0.060	0.070	0.060	0.000	1627.70	2102.40
0.003185	740.	720.	710.	7	8	0	0.00	1206.48	3546.93

)
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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Clark County Regional Flood Control District/Corps of Engineers
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 LVWDCJML.DAT 500-YR Flood Analysis - July 1987

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	-1.000000	0.00	0.0	0.	1597.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 0.150
3720 CRITICAL DEPTH ASSUMED
FULL FLOW

0.15	4.34	1596.34	1596.34	1597.00	1597.79	1.45	0.00	0.00	1600.00
60000.	0.	59991.	9.	0.	6201.	4.	0.	0.	1596.00
0.00	0.00	5.68	1.96	0.060	0.080	0.060	0.000	1592.00	8799.23
0.066940	0.	0.	0.	0	14	0	0.00	2197.09	10996.33

*SECNO 0.940
3940 SECTION NOT HIGH ENOUGH 1822.799 1674.000 1616.000 1674.000 0.000 2

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CL3689 FULL FLOW X-SECTION

0.94	6.03	1622.03	1619.15	0.00	1622.22	0.19	24.30	0.13	1621.20
60000.	55554.	1078.	3363.	15537.	798.	2156.	973.	293.	1622.60
0.30	3.58	1.35	1.56	0.060	0.090	0.060	0.000	1616.00	260.97
0.002329	3200.	4150.	2800.	6	19	0	0.00	5213.24	5507.60

CCHV= 0.100 CEHV= 0.300
*SECNO 1.040
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CL2831 MAIN BRANCH FLOWS FROM BHY X1.34

1.04	2.09	1624.29	1624.29	0.00	1624.55	0.26	1.39	0.02	1624.00
2885.	3.	1749.	1132.	2.	384.	335.	1099.	335.	1623.80
0.34	1.62	4.55	3.39	0.060	0.070	0.060	0.000	1622.20	2425.59
0.056478	580.	540.	515.	20	21	0	0.00	1309.00	3734.58

*SECNO 1.170

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

CL2732 MAIN BRANCH FLOWS

1.17	3.18	1630.88	0.33	0.00	1630.93	0.05	6.36	0.02	1631.50
2885.	844.	722.	1319.	470.	404.	803.	1119.	358.	1630.40
0.45	1.80	1.79	1.54	0.060	0.070	0.060	0.000	1627.70	1588.76
0.003436	740.	720.	710.	10	0	0	0.00	1496.25	3632.53

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LVWDCJML.DAT

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	0.150	0.00	0.00	0.00	1592.00	5400.00	1593.15	1593.15	1593.61	979.92	5.43	993.85	172.50
*	0.150	0.00	0.00	0.00	1592.00	10000.00	1593.64	1593.64	1594.27	878.86	6.37	1569.45	337.32
*	0.150	0.00	0.00	0.00	1592.00	18500.00	1594.31	1594.31	1595.17	796.41	7.41	2495.19	655.55
*	0.150	0.00	0.00	0.00	1592.00	60000.00	1596.34	1596.34	1597.79	669.40	9.68	6205.00	2319.04
	0.940	4150.00	0.00	0.00	1616.00	5400.00	1617.83	1616.72	1617.87	21.75	0.00	3398.15	1157.87
	0.940	4150.00	0.00	0.00	1616.00	10000.00	1618.54	1617.07	1618.60	22.18	0.00	5125.69	2123.38
	0.940	4150.00	0.00	0.00	1616.00	18500.00	1619.48	1617.57	1619.57	22.59	0.34	7738.43	3892.00
	0.940	4150.00	0.00	0.00	1616.00	60000.00	1622.03	1619.15	1622.22	23.29	1.35	18490.63	12432.72
*	1.040	540.00	0.00	0.00	1622.20	734.00	1623.85	1623.85	1624.02	740.91	3.39	234.76	26.97
*	1.040	540.00	0.00	0.00	1622.20	1096.00	1623.98	1623.98	1624.16	650.20	3.63	330.83	42.98
*	1.040	540.00	0.00	0.00	1622.20	1253.00	1624.02	1624.02	1624.21	633.72	3.74	372.23	49.77
*	1.040	540.00	0.00	0.00	1622.20	2885.00	1624.29	1624.29	1624.55	564.78	4.55	721.33	121.40
	1.170	720.00	0.00	0.00	1627.70	734.00	1629.94	0.00	1629.97	29.72	1.26	566.70	134.64
	1.170	720.00	0.00	0.00	1627.70	1096.00	1630.22	0.00	1630.25	31.39	1.41	779.32	195.62
	1.170	720.00	0.00	0.00	1627.70	1253.00	1630.31	0.00	1630.34	31.85	1.45	881.85	222.02
	1.170	720.00	0.00	0.00	1627.70	2885.00	1630.88	0.00	1630.93	34.36	1.79	1676.47	492.19

LVWDCJML.DAT

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	0.150	5400.00	1593.15	0.00	0.00	-3.85	1100.24	0.00
*	0.150	10000.00	1593.64	0.49	0.00	-3.36	1260.96	0.00
*	0.150	18500.00	1594.31	0.67	0.00	-2.69	1483.37	0.00
*	0.150	60000.00	1596.34	2.03	0.00	-0.66	2197.09	0.00
	0.940	5400.00	1617.83	0.00	24.68	0.00	2259.43	4150.00
	0.940	10000.00	1618.54	0.71	24.91	0.00	2572.28	4150.00
	0.940	18500.00	1619.48	0.94	25.17	0.00	2984.54	4150.00
	0.940	60000.00	1622.03	2.55	25.69	0.00	5213.24	4150.00
*	1.040	734.00	1623.85	0.00	6.03	0.00	762.76	540.00
*	1.040	1096.00	1623.98	0.12	5.43	0.00	825.37	540.00
*	1.040	1253.00	1624.02	0.04	4.53	0.00	1262.84	540.00
*	1.040	2885.00	1624.29	0.27	2.26	0.00	1309.00	540.00

1.170	734.00	1529.94	0.00	6.09	0.00	616.35	720.00
1.170	1096.00	1630.22	0.27	6.24	0.00	1028.87	720.00
1.170	1253.00	1639.31	0.09	6.29	0.00	1206.48	720.00
1.170	2885.00	1630.88	0.57	6.60	0.00	1496.25	720.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=    0.150  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.150  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.150  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.150  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    1.040  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.040  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.040  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    1.040  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.040  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.040  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    1.040  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.040  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.040  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    1.040  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    1.040  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    1.040  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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     33
   2.23        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   2.23        Centerline Station at 2506
   2.27        Centerline Station at 2219
  2.284        Centerline Station at 2323
  2.285        Centerline Station at 2323
  2.301        **** Vegas Valley Drive (NB) ****
  2.301        2* Debris Loading
  2.301        Centerline Station at 2323
  2.302        Centerline Station at 2323
   2.31        Centerline Station at 2240
   2.33        Centerline Station at 2240
   2.54        Centerline Station at 2872
   2.78        Centerline Station at 3462
    3.0        Centerline Station at 10000
  3.256        Centerline Station at 10000
  3.262        Centerline Station at 10000
  3.274        **** Winterwood Golf Course Bridge #1**
  3.274        2* Debris Loading
  3.274        Single cross section normal bridge
  3.274        Centerline Station at 10000
   3.28        Centerline Station at 10000
   3.47        Centerline Station at 10000
   3.49        Centerline Station at 10000
  3.506        **** Winterwood Golf Course Bridge #2**
  3.506        2* Debris Loading
  3.506        Single cross section normal bridge
  3.506        Centerline Station at 10000
   3.51        Centerline Station at 10000
   3.69        Centerline Station at 10000
   3.86        Centerline Station at 10000
   4.04        Centerline Station at 10000
   4.23        Centerline Station at 10000
   4.42        Centerline Station at 10000
T1             CCRFCD/COE OVERFLOW STUDY
T2             JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3             LAS VEGAS WASH - 25-YEAR (d/s Reach)
J1                    2                                          0.5          1695.7
J2          -1                  -1
J3         150
NC      0.030       0.10     0.035       0.1       0.3
QT            1       7800
ET                    7.1                                        900          3092
X1        2.23         38      2456      2740
GR1716.0             900   1712.0      1110    1708.0      1250    1704.0      1450    1700.0      1605
GR1696.0            1885   1692.0      1910    1692.0      1935    1693.7      2000    1694.4      2187
GR1694.5            2353   1694.2      2420    1692.9      2429    1696.0      2456    1692.6      2482
GR1692.6            2494   1688.2      2506    1689.3      2552    1689.8      2560    1689.7      2606
GR1689.7            2628   1690.3      2646    1692.1      2660    1691.2      2689    1691.5      2701
GR1694.0            2740   1692.3      3010    1690.2      3022    1692.7      3056    1702.3      3092
GR1700.0            3120   1696.0      3130    1696.0      3980    1700.0      3985    1701.7      4020
GR1700.0            4060   1700.0      5800    1704.0      7440
NC        0.03      0.06     0.030
X1        2.27         38      2155      2345       220       150       203
GR1716.0               1   1712.0        35    1708.0       225    1704.0       880    1700.0      1085
GR1700.0            1200   1696.0      1350    1696.0      1500    1695.5      2000    1695.5      2032
GR1694.5            2093   1693.9      2120    1696.3      2142    1695.3      2155    1693.4      2165
GR1689.7            2175   1689.7      2210    1688.5      2219    1689.9      2252    1690.1      2277
GR1693.1            2297   1693.1      2337    1693.5      2345    1694.1      2385    1694.7      2405
GR1694.8            2550   1696.5      2600    1693.0      2760    1704.0      2930    1700.0      2945
GR1696.0            2955   1696.0      3670    1700.0      3680    1700.0      5025    1704.0      7140
GR1708.0            7380   1708.0      7590    1710.0      9105
NC                                      0.3       0.5
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X1  2.284          25        2250        2395         100         100         100
X3                                                   3032      1704.0
GR1716.0           100      1712.0         120      1708.0         260      1704.0         950      1700.0        1160
GR1700.0          1330      1696.0        1450      1695.0        2000      1695.0        2250      1686.8        2252
GR1686.8          2394      1695.0        2395      1696.0        2655      1696.5        2692      1693.0        2852
GR1704.0          3032      1700.0        3050      1696.0        3060      1696.0        3685      1700.0        3695
GR1700.0          5070      1704.0        7185      1708.0        7470      1708.0        7690      1710.0        9230
X1  2.285           63        2250        2395           1           1           1
X2                                                                                                                   15
X3                                                   3032      1704.0
BT        6        2000      1695.0      1695.0        2248      1695.0      1695.0      2249.9      1696.3      1686.8
BT2396.1          1696.3      1686.8        2397      1695.0         260      1704.0         950      1700.0        1160
GR1716.0           100      1712.0         120      1708.0         260      1704.0         950      1700.0        1160
GR1700.0          1330      1696.0        1450      1695.0        2000      1695.0        2248      1692.3        2249.8
GR1686.8          2249.9      1686.8      2263.9      1692.3      2263.9      1692.3      2264.5      1686.8      2264.6
GR1686.8          2278.5      1692.3      2279.6      1692.3      2279.2      1686.8      2279.3      1686.8      2293.2
GR1692.3          2293.3      1692.3      2293.9      1686.8      2294.0      1686.8      2307.5      1692.3      2308.0
GR1692.3          2309.6      1686.8      2309.7      1686.8      2322.6      1692.3      2322.7      1692.3      2323.3
GR1686.8          2323.4      1686.8      2337.3      1692.3      2337.4      1692.3      2338.0      1686.8      2338.1
GR1686.8          2352.0      1692.3      2352.1      1692.3      2352.7      1686.8      2352.8      1686.8      2366.7
GR1692.3          2366.8      1692.3      2367.4      1686.8      2367.5      1686.8      2381.4      1692.3      2381.5
GR1692.3          2382.1      1686.8      2382.2      1686.8      2396.1      1692.3      2396.2      1695.0        2397
GR1696.0          2655        1696.5        2692      1693.0        2852      1704.0         3032      1700.0        3050
GR1696.0          3050        1696.0        3685      1700.0        3695      1700.0         5070      1704.0        7185
GR1708.0          7470        1708.0        7690      1710.0        9230
X1  2.301           53        2250        2395          87          87          87
X2                                                                                                                   15
X3                                                   3032      1704.0
BT        6        2000      1695.0      1695.0        2250      1695.0      1695.0      2251.9      1696.3      1686.8
BT2394.1          1693.1      1686.8        2395      1695.0      1695.0         2655      1696.0      1696.0
GR1716.0           100      1712.0         120      1708.0         260      1704.0         950      1700.0        1160
GR1700.0          1330      1696.0        1450      1695.0        2000      1695.0        2250      1692.3        2251.8
GR1686.8          2251.9      1686.8      2261.8      1692.3      2261.9      1692.3      2266.5      1686.8      2266.6
GR1686.8          2276.5      1692.3      2276.6      1692.3      2281.2      1686.8      2281.3      1686.8      2291.2
GR1692.3          2291.3      1692.3      2295.9      1686.8      2296.0      1686.8      2305.9      1692.3      2306.0
GR1692.3          2310.6      1686.8      2310.7      1686.8      2320.6      1692.3      2320.7      1692.3      2325.3
GR1686.8          2325.4      1686.8      2335.3      1692.3      2335.4      1692.3      2340.0      1686.8      2340.1
GR1686.8          2350.0      1692.3      2350.1      1692.3      2354.7      1686.8      2354.8      1686.8      2364.7
GR1692.3          2364.8      1692.3      2369.4      1686.8      2369.5      1686.8      2379.4      1692.3      2379.5
GR1692.3          2384.1      1686.8      2394.2      1686.8      2394.1      1692.3      2394.2      1695.0        2395
GR1696.0          2655        1696.5        2692      1693.0        2852      1704.0         3032      1700.0        3050
GR1696.0          3050        1696.0        3685      1700.0        3695      1700.0         5070      1704.0        7185
GR1708.0          7470        1708.0        7690      1710.0        9230
X1  2.302           25        2250        2395           1           1           1
X3                                                   3032      1704.0
GR1716.0           100      1712.0         120      1708.0         260      1704.0         950      1700.0        1160
GR1700.0          1330      1696.0        1450      1695.0        2000      1695.0        2250      1686.8        2252
GR1686.8          2394      1695.0        2395      1696.0        2655      1696.5        2692      1693.0        2852
GR1704.0          3032      1700.0        3050      1696.0        3060      1696.0        3685      1700.0        3695
GR1700.0          5070      1704.0        7185      1708.0        7470      1708.0        7690      1710.0        9230
X1   2.31           44        2181        2420          50          50          50
X3                                         1930      1704.0        2995      1704.0
GR1716.0           250      1712.0         270      1708.0         430      1704.0         790      1700.0        1000
GR1696.0          1410      1696.0        1505      1700.0        1515      1700.0        1620      1704.0        1670
GR1704.0          1930      1700.0        1940      1696.7        2000      1696.7        2032      1694.9        2102
GR1694.9          2164      1696.6        2172      1698.0        2181      1694.2        2198      1690.1        2208
GR1690.1          2223      1689.0        2229      1689.0        2251      1690.8        2279      1693.7        2300
GR1691.1          2364      1693.1        2388      1694.2        2420      1695.4        2443      1695.4        2564
GR1696.5          2600      1696.0        2760      1696.0        2955      1700.0        2965      1704.0        2995
GR1700.0          3085      1696.0        3190      1696.0        3585      1700.0        3695      1700.0        4990
GR1704.0          6950      1708.0        7350      1708.0        7580      1710.0        9120
NC  0.045        0.035        0.03         0.1           0.3
DT        1        7800
X1   2.33                                              125          95         110
X3                                         1930      1704.0        2995      1704.0
NC   0.06         0.05         0.03
X1   2.54           36        2727        2917        1200         900        1116
X3                                                                3045      1702.4
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GR1712.0      795    1702.0      785    1704.0      785    1700.0     1045    1700.0     1515
GR1700.0     1315    1698.0     2100    1697.8     2578    1697.7     2690    1698.2     2703
GR1695.2     2710    1695.2     2727    1691.0     2744    1691.8     2793    1691.4     2843
GR1690.0     2972    1691.0     2996    1695.3     2917    1701.4     3025    1702.4     3045
GR1701.8     3121    1701.8     3161    1700.6     3239    1700.6     3326    1699.1     3365
GR1697.7     3430    1696.9     3499    1696.8     3561    1696.8     3577    1701.0     3670
GR1700.0     3720    1700.0     5070    1704.0     7190    1708.0     7640    1708.0     7875
GR1710.0     8640
X1  2.78       34      3417     3503        950        900       1240
X3                           3417    1705.2     3671    1703.5
GR1712.0        0    1708.0      305    1704.0      885    1704.0     2120    1704.0     2260
GR1704.0     2450    1704.0     3380    1705.2     3417    1705.2     3417    1705.2     3417
GR1705.2     3417    1693.6     3427    1691.9     3431    1691.3     3434    1691.3     3449
GR1690.9     3451    1690.9     3473    1691.6     3496    1702.7     3503    1703.5     3671
GR1702.6     3704    1701.9     3718    1701.9     3726    1701.9     3742    1703.0     3748
GR1702.8     3778    1702.5     4003    1701.5     4234    1702.5     4359    1703.5     4460
GR1702.5     5070    1704.0     5640    1708.0     7010    1710.0     7630
NH      5    0.045      9918    0.050     10138    0.045      10362    0.130     12103     0.04
NH  13578
X1  3.04       36      9918    10138        600       1450       1380
X3                           9759    1714.1
GR1716.0     5153    1712.0     5553    1708.0     6393    1704.0     7208    1704.0     7323
GR1704.0     7453    1708.0     7673    1708.0     9473    1712.0     9713    1714.1     9798
GR1713.5     9885    1709.3     9918    1708.3     9954    1704.6     9969    1697.0     9987
GR1697.0     9993    1697.0    10012    1699.1    10033    1695.8    10057    1696.0    10067
GR1698.5    10069    1698.0    10076    1696.8    10079    1696.8    10093    1702.8    10108
GR1709.5    10138    1709.7    10173    1708.4    10188    1708.4    10253    1708.4    10268
GR1712.0    10309    1711.9    10335    1711.1    10362    1709.3    10860    1712.0    12103
GR1716.0    13578
NC 0.045    0.045      0.05
X1 3.256       32      9863    10103        800       1250       1144
X3                           9824    1714.9    10273    1716.8
GR1728.0     3820    1724.0     4305    1720.0     4475    1716.0     5215    1712.0     5340
GR1708.0     6620    1708.0     6775    1708.0     6920    1708.0     8135    1712.0     9410
GR1713.8     9673    1712.4     9783    1714.9     9824    1714.3     9863    1710.1     9907
GR1707.7     9983    1706.8     9995    1706.8    10013    1708.4    10027    1709.9    10066
GR1714.7    10103    1716.1    10159    1716.8    10273    1716.0    10326    1712.0    10545
GR1708.0    10575    1708.0    10655    1712.0    10695    1716.0    11745    1720.0    13155
GR1724.0    13440    1728.0    14900
X1  3.262                                   30         30         30
X3                           9824    1714.9    10273    1716.8
NC                            0.3       0.5
ET              7.1                                    9824    10273
X1  3.274       53      9909    10100     58.25      68.25      63.25
X2                                                                          15
BT      2    9900    1714.0    1713.0    10100    1714.0    1713.0
GR1728.0     3820    1724.0     4305    1720.0     4475    1716.0     5215    1712.0     5340
GR1708.0     6620    1708.0     6775    1708.0     6920    1708.0     8135    1712.0     9410
GR1713.8     9673    1712.4     9783    1714.9     9824    1714.3     9863    1712.0     9880
GR1714.0     9900    1710.0    9923.1    1713.0    9923.2    1713.0    9928.1    1710.0    9928.2
GR1709.0    9949.0    1713.0    9949.1    1713.0     9954.0    1709.0     9954.1    1708.0     9975.0
GR1713.0    9975.1    1713.0     9980.0    1708.0     9980.1    1709.0    10020.0    1713.0    10020.1
GR1713.0   10025.0    1708.0   10025.1    1709.0    10046.0    1713.0    10046.1    1713.0    10051.0
GR1709.0   10051.1    1710.0   10072.0    1713.0    10072.1    1713.0    10077.0    1710.0    10077.1
GR1714.0    10100    1712.0     10120    1716.1     10159    1716.8     10273    1716.0     10326
GR1712.0    10545    1708.0     10575    1708.0     10655    1712.0     10695    1716.0     11745
GR1720.0    13155    1724.0     13440    1728.0     14900
ET              7.1                                    9824    10273
X1  3.28        32      9863    10103     43.25      53.25      43.25
GR1728.0     3820    1724.0     4305    1720.0     4475    1716.0     5215    1712.0     5340
GR1708.0     6620    1708.0     6775    1708.0     6920    1708.0     8135    1712.0     9410
GR1713.8     9673    1712.4     9783    1714.9     9824    1714.3     9853    1710.1     9907
GR1708.0     9983    1708.0     9995    1708.0    10013    1708.4    10027    1709.5    10066
GR1714.7    10103    1716.1    10159    1716.8    10273    1716.0    10326    1712.0    10545
GR1708.0    10575    1708.0    10655    1712.0    10695    1716.0    11745    1720.0    13155
GR1724.0    13440    1728.0    14900
NC                            0.1       0.3
NH      6    0.045      9552    0.028      9942    0.023     10056    0.028     10168     0.13
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NH 13430    0.040    15535
ET             7.1                                                  9552    10218
K1   3.47       31     9942    10056      620     1000      976
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1717.4     9650   1717.2     9717   1716.8     9830   1715.1     9886
GR1716.7     9914   1716.5     9942   1709.8    10000   1710.7    10017   1711.6    10056
GR1713.4    10076   1718.9    10168   1720.1    10218   1716.7    10299   1717.0    10655
GR1720.0    10955   1720.0    11970   1724.0    12885   1728.0    13430   1728.0    14405
GR1732.0    15535
ET             7.1                                                  9552    10218
K1   3.49                                  120      120      120
NC                          0.3      0.5
NH         6    0.045     9552    0.028     9952    0.023    10048    0.028    10168     0.13
NH 13430        0.040    15535
ET             7.1                                                  9610    10218
K1  3.506       40      9952    10048       84       84       84
K2                                                                                          15
BT         2    9952   1718.3   1716.0    10048   1718.0   1716.0
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1720.0     9610   1717.4     9650   1717.2     9717   1716.8     9830
GR1715.1     9886   1716.7     9914   1716.0     9952   1712.2     9952.1 1712.2    9986.9
GR1716.0    9987.0  1716.0    9992.4  1712.2    9992.5  1712.2    10007.3 1716.0    10007.4
GR1716.0   10012.9  1712.2   10013.0  1712.2   10047.9  1718.0     10048  1713.4     10076
GR1718.9    10158   1720.1    10218   1716.7    10299   1717.0    10655   1720.0     10955
GR1720.0    11970   1724.0    12885   1728.0    13430   1728.0    14405   1732.0     15535
NH         6    0.045     9552    0.028     9942    0.023    10056    0.028    10168     0.13
NH 13430        0.040    15535
ET             7.1                                                  9610    10218
K1   3.51       32      9942    10056       44       44       44
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1720.0     9610   1717.4     9650   1717.2     9717   1716.8     9830
GR1715.1     9886   1716.7     9914   1716.5     9942   1712.0    10000   1712.0    10017
GR1712.0    10056   1713.4    10076   1718.9    10168   1720.1    10218   1716.7    10299
GR1717.0    10655   1720.0    10955   1720.0    11970   1724.0    12885   1728.0    13430
GR1728.0    14405   1732.0    15535
NC                          0.1      0.3
NH         5    0.045     9645    0.028     9897    0.023    10222    0.110    12895    0.045
NH 14765
K1   3.69       33      9897    10222      950      850      908
K3                                9681   1731.1   10222   1723.8
GR1732.0     3795   1728.0     3880   1724.0     3970   1724.0     4515   1720.0     5705
GR1716.0     6660   1716.0     6785   1720.0     7375   1720.0     8060   1721.7     8100
GR1720.0     8140   1720.0     9320   1724.0     9535   1728.6     9645   1731.1     9681
GR1721.4     9747   1720.7     9780   1720.1     9861   1720.3     9897   1715.4     9930
GR1716.8     9971   1715.2     9994   1715.2    10005   1715.4    10025   1715.4    10035
GR1719.0    10059   1723.8    10222   1720.4    10355   1724.0    10545   1724.0    12895
GR1728.0    13735   1728.0    14075   1732.0    14765
NH         7    0.045     6875    0.130     9105    0.028     9921    0.023    10111    0.028
NH 10364        0.110    12500    0.045    14640
K1  3.86       50      9921    10111      950      880      908
K3                                9828   1726.3   10137   1729.3
GR1740.0     3430   1736.0     3685   1732.0     4030   1728.0     4505   1724.0     5940
GR1724.0     6075   1724.0     6875   1724.0     8840   1727.9     9105   1727.9     9177
GR1724.7     9134   1724.7     9203   1725.9     9230   1728.8     9255   1728.0     9326
GR1728.0     9410   1727.4     9426   1725.0     9448   1723.8     9544   1723.8     9613
GR1724.9     9619   1724.9     9624   1724.2     9629   1723.2     9637   1723.2     9653
GR1725.1     9656   1725.3     9725   1726.0     9762   1726.3     9828   1726.3     9875
GR1725.9     9921   1721.3     9941   1720.3     9994   1719.2     9997   1719.2    10002
GR1720.7    10004   1720.7    10038   1723.9    10078   1727.2    10111   1729.3    10137
GR1728.1    10165   1726.9    10221   1726.2    10283   1726.7    10364   1724.0    10960
GR1724.0    11920   1728.0    12500   1728.0    13260   1729.8    13910   1732.0    14640
NH         7    0.050     5160    0.130     9619    0.030     9913    0.028    10100    0.030
NH 10271        0.130    12400    0.045    14210
K1   4.04       38      9913    10100     1000      900      960
K2                                                                                          15
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X3                                 9672   1732.4   10317  1731.2
GR1736.0     3440   1732.0        4945   1732.3    5160  1732.0     8340  1728.0     8740
GR1732.0     9485   1732.0        9585   1729.8    9619  1729.9     9650  1732.4     9672
GR1732.4     9771   1729.9        9794   1729.9    9827  1729.2     9913  1722.0     9949
GR1721.7     9934   1721.0        9997   1721.0   10003  1722.5    10005  1722.1    10047
GR1727.4    10079   1730.9       10100   1731.8   10113  1732.0    10136  1731.5    10172
GR1730.1    10196   1730.5       10232   1731.2   10271  1731.2    10317  1726.6    10333
GR1726.6    10399   1731.5       10413   1731.5   10442  1728.0    10890  1728.0    12400
GR1732.0    13450   1732.0       13980   1736.0   14210
VH      9    0.045     4310      0.130     7565   0.040     8365   0.130     8720   0.030
VH   9900    0.028    10100       0.03    10247   0.130    12915   0.100    14920
X1   4.23       36     9900      10247     1100     950     1020
X3                                 9140   1736.0   10350  1734.5
GR1740.0     3570   1736.0        3850   1736.0    4310  1736.0     6095  1732.0     7375
GR1732.0     7555   1736.0        8140   1736.0    8365  1736.0     8720  1733.0     9738
GR1732.4     9900   1723.6        9945   1723.1    9987  1723.0     9996  1723.0    10003
GR1723.5    10003   1724.8       10040   1727.3   10053  1729.7    10080  1730.8    10095
GR1732.5    10180   1733.6       10247   1734.5   10350  1729.5    10363  1730.1    10427
GR1733.8    10440   1733.7       10515   1731.0   10528  1731.2    10616  1730.2    10628
GR1731.5    10655   1733.9       10661   1732.0   10860  1732.0    12915  1736.0    13980
GR1738.0    14920
VH      5    0.045     3880      0.130     8050   0.050     9935   0.045    10132   0.100
VH  15890
X1   4.42       27     9935      10132      992      992      992
X3                                 9731   1739.7   10236  1738.0
GR1748.0     2045   1744.0        2335   1740.0    3060  1740.0     3515  1736.0     3675
GR1736.0     3880   1736.0        6460   1736.5    8050  1739.7     9731  1738.7     9794
GR1737.4     9813   1737.0        9935   1724.9    9956  1724.8    10010  1724.2    10052
GR1732.3    10072   1735.4       10095   1737.6   10132  1737.6    10179  1738.0    10236
GR1736.0    10750   1735.6       11580   1736.0   12365  1740.0    13440  1744.0    14870
GR1744.0    15500   1748.0       15890
EJ
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ER
EOF..
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   33
 2.23        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
 2.23        Centerline Station at 2506
 2.27        Centerline Station at 2219
2.284        Centerline Station at 2323
2.285        Centerline Station at 2323
2.301        **** Vegas Valley Drive (NB) ****
2.301        2* Debris Loading
2.301        Centerline Station at 2323
2.302        Centerline Station at 2323
 2.31        Centerline Station at 2240
 2.33        Centerline Station at 2240
 2.54        Centerline Station at 2872
 2.79        Centerline Station at 3462
 3.04        Centerline Station at 10000
3.256        Centerline Station at 10000
3.262        Centerline Station at 10000
3.274        **** Winterwood Golf Course Bridge #1**
3.274        2* Debris Loading
3.274        Single cross section normal bridge
3.274        Centerline Station at 10000
 3.28        Centerline Station at 10000
 3.47        Centerline Station at 10000
 3.49        Centerline Station at 10000
3.506        **** Winterwood Golf Course Bridge #2**
3.506        2* Debris Loading
3.506        Single cross section normal bridge
3.506        Centerline Station at 10000
 3.51        Centerline Station at 10000
 3.69        Centerline Station at 10000
 3.86        Centerline Station at 10000
 4.04        Centerline Station at 10000
 4.23        Centerline Station at 10000
 4.42        Centerline Station at 10000
T1           CORFCD/COE OVERFLOW STUDY
T2           JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3           LAS VEGAS WASH - 50-YEAR (d/s Reach)
J1                2                                                0.5          1697.1
J2     -1                -1
J3    150
NC  0.030     0.10    0.035      0.1      0.3
QT        1   14000
ET              3.1      900     3092
X1   2.23        38     2456     2740
GR1716.0         900  1712.0     1110   1708.0     1250   1704.0     1450   1700.0     1605
GR1696.0        1885  1692.0     1910   1592.0     1935   1693.7     2000   1694.4     2187
GR1694.5        2353  1694.2     2420   1592.9     2429   1696.0     2456   1692.6     2482
GR1692.6        2494  1688.2     2506   1689.3     2552   1689.8     2560   1689.7     2606
GR1689.7        2528  1690.3     2646   1592.1     2660   1691.2     2689   1691.5     2701
GR1694.0        2740  1692.3     3010   1690.2     3022   1692.7     3056   1702.3     3092
GR1700.0        3120  1696.0     3130   1696.1     3980   1700.0     3985   1701.7     4020
GR1700.0        4060  1700.0     5800   1704.0     7440
NC   0.03     0.06    0.030
ET              3.1         1     2930
X1   2.27        38     2155     2345      220      150      203
GR1716.0         1  1712.9        35   1708.0      225   1704.0      880   1700.0     1085
GR1700.0        1200  1696.0     1350   1696.0     1500   1695.5     2000   1695.5     2032
GR1694.5        2093  1693.9     2120   1696.3     2142   1695.3     2155   1693.4     2165
GR1689.7        2175  1689.7     2210   1588.5     2219   1689.9     2252   1690.1     2277
GR1693.1        2297  1693.1     2337   1693.5     2345   1694.1     2385   1694.7     2405
GR1694.8        2550  1696.5     2600   1693.0     2760   1704.0     2930   1700.0     2945
GR1696.0        2955  1696.0     3670   1700.0     3680   1700.0     5025   1704.0     7140
GR1708.0        7380  1708.0     7590   1710.0     9105
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VC                      0.3       0.5
ET          3.1         1      3032
X1 2.284     25      2250      2395       100       100       100
GR1716.0    100    1712.0       120    1708.0       260    1704.0       950    1700.0      1160
GR1700.0   1330    1696.0      1450    1695.0      2000    1695.0      2250    1686.8      2252
GR1686.8   2394    1695.0      2395    1696.0      2655    1696.5      2692    1693.0      2852
GR1704.0   3032    1700.0      3050    1696.0      3060    1696.0      3685    1700.0      3695
GR1700.0   5070    1704.0      7185    1708.0      7470    1708.0      7690    1710.0      9230
X1 2.285     63      2248      2397         1         1         1
X2                                                                                       15
X3                                                3032    1704.0
BT      6  2000    1695.0    1695.0      2248    1695.0    1695.0    2249.9    1696.3    1686.8
BT2396.1 1696.3    1686.8      2397    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0    100    1712.0       120    1708.0       260    1704.0       950    1700.0      1160
GR1700.0   1330    1696.0      1450    1695.0      2000    1695.0      2248    1692.3    2249.8
GR1686.8 2249.9    1686.8    2263.8    1692.3    2263.9    1692.3    2264.5    1686.8    2264.6
GR1686.8 2278.5    1692.3    2278.6    1692.3    2279.2    1686.8    2279.3    1686.8    2293.2
GR1692.3 2293.3    1692.3    2293.9    1686.8    2294.0    1686.8    2307.9    1692.3    2308.0
GR1692.3 2308.6    1686.8    2308.7    1686.8    2322.6    1692.3    2322.7    1692.3    2323.3
GR1686.8 2323.4    1686.8    2337.3    1692.3    2337.4    1692.3    2338.0    1686.8    2338.1
GR1686.8 2352.0    1692.3    2352.1    1692.3    2352.7    1686.8    2352.8    1686.8    2366.7
GR1692.3 2366.8    1692.3    2367.4    1686.8    2367.5    1686.8    2381.4    1692.3    2381.5
GR1692.3 2382.1    1686.8    2382.2    1686.8    2396.1    1692.3    2396.2    1695.0      2397
GR1696.0    2655    1696.5      2692    1693.0      2852    1704.0      3032    1700.0      3050
GR1696.0    3060    1696.0      3685    1700.0      3695    1700.0      5070    1704.0      7185
GR1708.0    7470    1708.0      7690    1710.0      9230
X1 2.301     63      2250      2395        87        87        87
X2                                                                                       15
X3                                                3032    1704.0
BT      6  2000    1695.0    1695.0      2250    1695.0    1695.0    2251.9    1696.3    1686.8
BT2394.1 1593.1    1686.8      2395    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0    100    1712.0       120    1708.0       260    1704.0       950    1700.0      1160
GR1700.0   1330    1696.0      1450    1695.0      2000    1695.0      2250    1692.3    2251.8
GR1686.8 2251.9    1686.8    2261.8    1692.3    2261.9    1692.3    2266.5    1686.8    2266.6
GR1686.8 2276.5    1692.3    2276.6    1692.3    2281.2    1686.8    2281.3    1686.8    2291.2
GR1692.3 2291.3    1692.3    2295.9    1686.8    2296.0    1686.8    2305.9    1692.3    2306.0
GR1692.3 2310.6    1686.8    2310.7    1686.8    2320.6    1692.3    2320.7    1692.3    2325.3
GR1686.8 2325.4    1686.8    2335.3    1692.3    2335.4    1692.3    2340.0    1686.8    2340.1
GR1686.8 2350.0    1692.3    2350.1    1692.3    2354.7    1686.8    2354.8    1686.8    2364.7
GR1692.3 2364.8    1692.3    2369.4    1686.8    2369.5    1686.8    2379.4    1692.3    2379.5
GR1692.3 2384.1    1686.8    2384.2    1686.8    2394.1    1692.3    2394.2    1695.0      2395
GR1696.0    2655    1696.5      2692    1693.0      2852    1704.0      3032    1700.0      3050
GR1696.0    3060    1696.0      3685    1700.0      3695    1700.0      5070    1704.0      7185
GR1708.0    7470    1708.0      7690    1710.0      9230
ET          3.1       100      3032
X1 2.302     25      2250      2395         1         1         1
GR1716.0    100    1712.0       120    1708.0       260    1704.0       950    1700.0      1160
GR1700.0   1330    1696.0      1450    1695.0      2000    1695.0      2250    1686.8      2252
GR1686.8   2394    1695.0      2395    1696.0      2655    1696.5      2692    1693.0      2852
GR1704.0   3032    1700.0      3050    1696.0      3060    1696.0      3685    1700.0      3695
GR1700.0   5070    1704.0      7185    1708.0      7470    1708.0      7690    1710.0      9230
ET          3.1      1930      2995
X1  2.31     44      2181      2420        50        50        50
GR1716.0    250    1712.0       270    1708.0       430    1704.0       790    1700.0      1000
GR1696.0   1410    1696.0      1505    1700.0      1515    1700.0      1620    1704.0      1670
GR1704.0   1930    1700.0      1940    1696.7      2000    1696.7      2032    1694.9      2102
GR1694.9   2154    1696.6      2172    1698.0      2181    1694.2      2198    1690.1      2208
GR1690.1   2223    1689.0      2229    1689.0      2251    1690.8      2279    1693.7      2300
GR1691.1   2364    1693.1      2388    1694.2      2420    1695.4      2443    1695.4      2564
GR1696.5   2600    1696.0      2760    1696.0      2955    1700.0      2965    1704.0      2995
GR1700.0   3005    1696.0      3180    1696.0      3585    1700.0      3595    1700.0      4990
GR1704.0   6950    1708.0      7350    1708.0      7580    1710.0      9120
NC 0.045 0.035       0.03       0.1       0.3
QT       1 14000
ET          3.1      1930      2995
X1  2.33                                  125        95       110
NC  0.06    0.05      0.03
ET          3.1       705      3045
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X1   2.54          36        2727        2917        1201         900        1116
GR1712.0          705      1708.0         706      1704.0         785      1700.0        1045      1700.0        1615
GR1700.0         1915      1698.0        2100      1597.8        2578      1697.7        2690      1698.2        2703
GR1695.2         2710      1695.2        2727      1691.3        2744      1691.8        2793      1691.4        2843
GR1690.0         2872      1691.0        2856      1695.3        2917      1701.4        3025      1702.4        3045
GR1701.8         3121      1701.8        3181      1700.5        3239      1700.6        3326      1699.1        3365
GR1697.7         3430      1696.9        3499      1696.8        3561      1696.8        3577      1701.0        3670
GR1700.0         3720      1700.0        5079      1704.0        7190      1708.0        7640      1708.0        7875
GR1710.0         8640
X1   2.78          34        3417        3503         950         900        1240
X3                                      3417      1705.2        3671      1703.5
GR1712.0            0      1708.0         305      1704.0         885      1704.0        2120      1704.0        2260
GR1704.0         2450      1704.0        3380      1705.2        3417      1705.2        3417      1705.2        3417
GR1705.2         3417      1693.6        3427      1691.9        3431      1691.3        3434      1691.3        3449
GR1690.9         3451      1690.9        3473      1691.6        3496      1702.7        3503      1703.5        3671
GR1702.6         3704      1701.9        3718      1701.9        3726      1701.9        3742      1703.0        3748
GR1702.8         3778      1702.5        4003      1701.5        4234      1702.5        4359      1703.5        4460
GR1702.5         5070      1704.0        5640      1708.0        7010      1710.0        7630
NH        5      0.045        9918       0.050       10138       0.045       10362       0.130       12103       0.04
NH   13578
X1   3.04          36        9918       10138         600        1450        1380
X3                                      9798      1714.1       10309      1712.0
GR1716.0         5153      1712.0        5553      1708.0        6393      1704.0        7208      1704.0        7323
GR1704.0         7453      1708.0        7573      1708.0        9473      1712.0        9713      1714.1        9798
GR1713.5         9885      1709.3        9918      1708.3        9954      1704.6        9969      1697.0        9987
GR1697.0         9993      1697.0       10012      1699.1       10033      1695.8       10057      1696.0       10067
GR1698.5        10069      1698.0       10076      1696.8       10079      1696.8       10093      1702.8       10108
GR1709.5        10138      1709.7       10173      1708.4       10188      1708.4       10253      1708.4       10268
GR1712.0        10309      1711.9       10335      1711.1       10362      1709.3       10860      1712.0       12103
GR1716.0        13578
NC  0.045       0.045       0.05
ET                3.1        9824       10273
X1   3.256          32        9863       10103         800        1250        1144
GR1728.0         3820      1724.0        4305      1720.0        4475      1716.0        5215      1712.0        5340
GR1708.0         6620      1708.0        6775      1708.0        6920      1708.0        8135      1712.0        9410
GR1713.8         9673      1712.4        9783      1714.9        9824      1714.3        9863      1710.1        9907
GR1707.7         9983      1706.8        9995      1706.8       10013      1708.4       10027      1709.9       10066
GR1714.7        10103      1716.1       10159      1716.8       10273      1716.0       10326      1712.0       10545
GR1708.0        10575      1708.0       10655      1712.0       10695      1716.0       11745      1720.0       13155
GR1724.0        13440      1728.0       14900
ET                3.1        9824       10273
K1   3.262                                          30          30          30
NC                                        0.3         0.5
ET                7.1                                                   9824       10273
X1   3.274          53        9900       10100       58.25       68.25       63.25
K2                                                                                          15
BT        2        9900      1714.0      1713.0       10100      1714.0      1713.0
GR1728.0         3820      1724.0        4305      1720.0        4475      1716.0        5215      1712.0        5340
GR1708.0         6620      1708.0        6775      1708.0        6920      1708.0        8135      1712.0        9410
GR1713.8         9673      1712.4        9783      1714.9        9824      1714.3        9863      1712.0        9880
GR1714.0         9900      1710.0      9923.1      1713.0      9923.2      1713.0      9928.1      1710.0      9928.2
GR1709.0       9949.0      1713.0      9949.1      1713.0      9954.0      1709.0      9954.1      1708.0      9975.0
GR1713.0       9975.1      1713.0      9980.0      1708.0      9980.1      1708.0     10020.0      1713.0     10020.1
GR1713.0      10025.0      1708.0     10025.1      1709.0     10046.0      1713.0     10046.1      1713.0     10051.0
GR1709.0      10051.1      1710.0     10072.0      1713.0     10072.1      1713.0     10077.0      1710.0     10077.1
GR1714.0        10100      1712.0        10120      1716.1       10159      1716.8       10273      1716.0       10326
GR1712.0        10545      1708.0        10575      1708.0       10655      1712.0       10695      1716.0       11745
GR1720.0        13155      1724.0        13440      1728.0       14900
ET                7.1                                                   9824       10273
X1   3.28           32        9863       10103       43.25       53.25       43.25
GR1728.0         3820      1724.0        4305      1720.0        4475      1716.0        5215      1712.0        5340
GR1708.0         6620      1708.0        6775      1708.0        6920      1708.0        8135      1712.0        9410
GR1713.8         9673      1712.4        9783      1714.9        9824      1714.3        9863      1710.1        9907
GR1708.0         9933      1708.0        9995      1708.0       10013      1708.4       10027      1709.9       10066
GR1714.7        10103      1716.1       10159      1716.8       10273      1716.0       10326      1712.0       10545
GR1708.0        10575      1708.0       10655      1712.0       10695      1716.0       11745      1720.0       13155
GR1724.0        13440      1728.0       14900
NC                                        0.1         0.3
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NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168    0.13
NH   13430    0.040     15535
ET             7.1                                            9552    10218
X1    3.47       31      9942    10056       620     1000      976
GR1732.0       3280    1728.0     3300    1724.0     3320    1724.0     4225    1724.0     4570
GR1720.0       4740    1716.0     5010    1712.0     6840    1712.0     6970    1716.0     9480
GR1717.5       9552    1717.4     9650    1717.2     9717    1716.8     9830    1715.1     9886
GR1716.7       9914    1716.5     9942    1709.3    10000    1710.7    10017    1711.6    10056
GR1713.4      10076    1718.9    10168    1720.1    10218    1716.7    10299    1717.0    10655
GR1720.0      10955    1720.0    11970    1724.0    12885    1728.0    13430    1728.0    14405
GR1732.0      15535
ET             7.1                                            9552    10218
X1    3.49                                 120       120      120
NC                                  0.3      0.5
NH       6    0.045      9552    0.028      9952    0.023     10048    0.028     10168    0.13
NH   13430    0.040     15535
ET             7.1                                            9610    10218
X1   3.506       40      9952    10048        84        84       84
X2                                                                                      15
BT       2    9952    1718.0    1716.0    10048    1718.0    1716.0
GR1732.0       3280    1728.0     3300    1724.0     3320    1724.0     4225    1724.0     4570
GR1720.0       4740    1716.0     5010    1712.0     6840    1712.0     6970    1716.0     9480
GR1717.5       9552    1720.0     9610    1717.4     9650    1717.2     9717    1716.8     9830
GR1715.1       9886    1716.7     9914    1718.0     9952    1712.2   9952.1    1712.2   9986.9
GR1716.0     9987.0    1716.0   9992.4    1712.2   9992.5    1712.2  10007.3    1716.0  10007.4
GR1716.0   10012.9     1712.2   10013.0   1712.2   10047.9   1718.0    10048    1713.4    10076
GR1718.9      10158    1720.1    10218    1716.7    10299    1717.0    10655    1720.0    10955
GR1720.0      11970    1724.0    12885    1728.0    13430    1728.0    14405    1732.0    15535
NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168    0.13
NH   13430    0.040     15535
ET             7.1                                            9610    10218
X1    3.51       32      9942    10056        44        44       44
GR1732.0       3280    1728.0     3300    1724.0     3320    1724.0     4225    1724.0     4570
GR1720.0       4740    1716.0     5010    1712.0     6840    1712.0     6970    1716.0     9480
GR1717.5       9552    1720.0     9610    1717.4     9650    1717.2     9717    1716.8     9830
GR1715.1       9886    1716.7     9914    1716.5     9942    1712.0    10000    1712.0    10017
GR1712.0      10056    1713.4    10076    1718.9    10168    1720.1    10218    1716.7    10299
GR1717.0      10655    1720.0    10955    1720.0    11970    1724.0    12885    1728.0    13430
GR1728.0      14405    1732.0    15535
NC                                  0.1      0.3
NH       5    0.045      9645    0.028      9897    0.023     10222    0.110     12895    0.045
NH   14765
K1    3.69       33      9897    10222       950       850       908
K3                       9681   1731.1    10222   1723.8
GR1732.0       3795    1728.0     3889    1724.0     3970    1724.0     4515    1720.0     5705
GR1716.0       6660    1716.0     6785    1720.0     7375    1720.0     8060    1721.7     8100
GR1720.0       8140    1720.0     9320    1724.0     9535    1728.6     9645    1731.1     9681
GR1721.4       9747    1720.7     9780    1720.1     9861    1720.3     9897    1715.4     9930
GR1716.8       9971    1715.2     9994    1715.2    10005    1715.4    10025    1715.4    10035
GR1719.0      10059    1723.8    10222    1720.4    10355    1724.0    10545    1724.0    12895
GR1728.0      13735    1728.0    14075    1732.0    14765
NH       7    0.045      6875    0.130      9105    0.028      9921    0.023     10111    0.028
NH   10364    0.110     12500    0.045     14640
ET             3.1      9828    10137
K1    3.86       50      9921    10111       950       880       908
GR1740.0       3430    1736.0     3685    1732.0     4030    1728.0     4505    1724.0     5940
GR1724.0       6075    1724.0     6875    1724.0     8840    1727.9     9185    1727.9     9177
GR1724.7       9184    1724.7     9203    1725.9     9230    1728.8     9255    1728.0     9326
GR1728.0       9410    1727.4     9426    1725.0     9448    1723.8     9544    1723.8     9613
GR1724.9       9619    1724.9     9624    1724.2     9629    1723.2     9637    1723.2     9653
GR1725.1       9656    1725.3     9725    1726.9     9762    1726.3     9828    1726.3     9875
GR1725.0       9921    1721.3     9941    1720.3     9994    1719.2     9997    1719.2    10002
GR1720.7      10034    1720.7    10038    1723.9    10078    1727.2    10111    1729.3    10137
GR1728.1      10165    1726.9    10221    1726.2    10283    1726.7    10364    1724.0    10960
GR1724.9      11920    1728.0    12509    1728.8    13260    1729.8    13910    1732.0    14648
NH       7    0.050      5160    0.130      9619    0.030      9913    0.028     10100    0.030
NH   10271    0.130     12400    0.045     14210
ET             3.1      9771    10271
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K1   4.04       58      9913     10100      1000       900       960
K2                                                                  15
GR1736.0      3440    1732.0      4945    1732.0      5160    1732.0      8340    1728.0      8740
GR1732.0      9435    1732.0      9585    1729.8      9619    1729.9      9650    1732.4      9672
GR1732.4      9771    1729.9      9784    1729.8      9827    1729.2      9913    1722.0      9949
GR1721.7      9994    1721.0      9997    1721.0     10003    1722.5     10015    1722.1     10047
GR1727.4     10079    1730.9     10100    1731.8     10113    1732.0     10136    1731.5     10172
GR1730.1     10196    1730.5     10232    1731.2     10271    1731.2     10317    1726.6     10333
GR1726.5     10399    1731.5     10413    1731.5     10442    1728.0     10890    1728.0     12400
GR1732.0     13450    1732.0     13980    1736.0     14210
NH       9   0.045      4310     0.130      7565     0.040      8365     0.130      8720     0.030
NH    9900   0.028     10100      0.03     10247     0.130     12915     0.100     14920
ET               3.1     8720     10350
K1   4.23        36      9900     10247      1100       950      1020
GR1740.0      3570    1736.0      3850    1736.0      4310    1736.0      6095    1732.0      7375
GR1732.0      7565    1736.0      8140    1736.0      8365    1736.0      8720    1733.0      9738
GR1732.4      9900    1723.6      9945    1723.1      9987    1723.0      9996    1723.0     10003
GR1723.5     10003    1724.8     10040    1727.3     10053    1729.7     10080    1730.8     10095
GR1732.5     10130    1733.6     10247    1734.5     10350    1729.5     10363    1730.1     10427
GR1733.8     10440    1733.7     10515    1731.0     10528    1731.2     10616    1730.2     10628
GR1731.5     10655    1733.9     10661    1732.0     10860    1732.0     12915    1736.0     13980
GR1738.0     14920
NH       5   0.045      3880     0.130      8050     0.050      9935     0.045     10132     0.100
NH   15890
K1   4.42        27      9935     10132       992        992       992
K3                                 9731    1739.7     10236    1738.0
GR1748.0      2045    1744.0      2335    1740.0      3860    1740.0      3515    1736.0      3675
GR1736.0      3880    1736.0      6450    1736.5      8050    1739.7      9731    1739.7      9794
GR1737.4      9813    1737.0      9935    1724.9      9956    1724.8     10000    1724.2     10052
GR1732.3     10072    1735.4     10095    1737.5     10132    1737.6     10179    1738.0     10236
GR1736.0     10750    1735.6     11580    1736.0     12365    1740.0     13440    1744.0     14870
GR1744.0     15500    1748.0     15890
EJ


ER
EOF..
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      33
    2.23        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    2.23        Centerline Station at 2506
    2.27        Centerline Station at 2219
   2.284        Centerline Station at 2323
   2.285        Centerline Station at 2323
   2.301        **** Vegas Valley Drive (NB) ****
   2.301        2* Debris Loading
   2.301        Centerline Station at 2323
   2.302        Centerline Station at 2323
    2.31        Centerline Station at 2240
    2.33        Centerline Station at 2240
    2.54        Centerline Station at 2872
    2.78        Centerline Station at 3462
    3.04        Centerline Station at 10000
   3.256        Centerline Station at 10000
   3.262        Centerline Station at 10000
   3.274        **** Winterwood Golf Course Bridge #1**
   3.274        2* Debris Loading
   3.274        Single cross section normal bridge
   3.274        Centerline Station at 10000
    3.28        Centerline Station at 10000
    3.47        Centerline Station at 10000
    3.49        Centerline Station at 10000
   3.506        **** Winterwood Golf Course Bridge #2**
   3.506        2* Debris Loading
   3.506        Single cross section normal bridge
   3.506        Centerline Station at 10000
    3.51        Centerline Station at 10000
    3.69        Centerline Station at 10000
    3.86        Centerline Station at 10000
    4.04        Centerline Station at 10000
    4.23        Centerline Station at 10000
    4.42        Centerline Station at 10000
T1              CORECD/COE OVERFLOW STUDY
T2              JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3              LAS VEGAS WASH - 100-YEAR (d/s Reach)
J1                    2                                    0.5          1698.8
J2          1                -1
J3        150
NC    0.030       0.10     0.035       0.1       0.3
NT            2  24000     84000
ET                 7.1                                     900     3092
X1     2.23          38      2456      2740
GR1716.0           900    1712.0    1110    1708.0    1250    1704.0    1450    1700.0    1605
GR1696.0          1885    1692.0    1910    1692.0    1935    1693.7    2000    1694.4    2187
GR1694.5          2353    1694.2    2420    1692.9    2429    1696.0    2456    1692.6    2482
GR1692.6          2494    1688.2    2506    1689.3    2552    1689.8    2560    1689.7    2606
GR1689.7          2628    1690.3    2646    1692.1    2660    1691.2    2689    1691.5    2701
GR1694.0          2740    1692.3    3010    1690.2    3022    1692.7    3056    1702.3    3092
GR1700.0          3120    1696.0    3130    1696.0    3980    1700.0    3985    1701.7    4020
GR1700.0          4060    1700.0    5800    1704.0    7440
NC    0.03        0.06     0.030
ET                 7.1                                            2930
X1     2.27          38      2155      2345       220       150       203
GR1716.0             1    1712.0        35    1708.0       225    1704.0       880    1700.0    1085
GR1700.0          1200    1696.0    1350    1696.0    1500    1695.5    2000    1695.5    2032
GR1694.5          2093    1693.9    2120    1696.3    2142    1695.3    2155    1693.4    2165
GR1689.7          2175    1689.7    2210    1688.5    2219    1689.9    2252    1690.1    2277
GR1693.1          2297    1693.1    2337    1693.5    2345    1694.1    2385    1694.7    2405
GR1694.8          2550    1696.5    2600    1693.0    2760    1704.0    2930    1700.0    2945
GR1696.0          2955    1696.0    3670    1700.0    3680    1700.0    5025    1704.0    7140
GR1708.0          7380    1708.0    7550    1710.0    9105
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NC                    0.3       0.5
ET          7.1                                       3032
X1  2.284     25      2250      2395       100        100       100
GR1716.0     100   1712.0       120    1708.0        260    1704.0       950    1700.0      1160
GR1700.0    1330   1696.0      1450    1695.0       2000    1695.0      2250    1686.8      2252
GR1686.8    2394   1695.0      2395    1696.0       2655    1696.5      2692    1693.0      2852
GR1704.0    3032   1700.0      3050    1696.0       3060    1696.0      3685    1700.0      3695
GR1700.0    5070   1704.0      7185    1708.0       7470    1708.0      7690    1710.0      9230
ET          7.1                                       3032
X1  2.285     53      2248      2397         1          1         1
X2                                                                                          15
BT          6     2000   1695.0    1695.0      2248   1695.0    1695.0    2249.9    1696.3    1686.8
BT2396.1      1696.3    1686.8      2397    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0     100   1712.0       120    1708.0        260    1704.0       950    1700.0      1160
GR1700.0    1330   1696.0      1450    1695.0       2000    1695.0      2248    1692.3    2249.8
GR1686.8    2249.9    1686.8    2263.8    1692.3    2263.9    1692.3    2264.5    1686.8    2264.6
GR1686.8    2278.5    1692.3    2278.6    1692.3    2279.2    1686.8    2279.3    1686.8    2293.2
GR1692.3    2293.3    1692.3    2293.9    1686.8    2294.0    1686.8    2307.9    1692.3    2308.0
GR1692.3    2308.6    1686.8    2308.7    1686.8    2322.6    1692.3    2322.7    1692.3    2323.3
GR1686.8    2323.4    1686.8    2337.3    1692.3    2337.4    1692.3    2338.0    1686.8    2338.1
GR1686.8    2352.0    1692.3    2352.1    1692.3    2352.7    1686.8    2352.8    1686.8    2366.7
GR1692.3    2366.8    1692.3    2367.4    1686.8    2367.5    1686.8    2381.4    1692.3    2381.5
GR1692.3    2382.1    1686.8    2382.2    1686.8    2396.1    1692.3    2396.2    1695.0      2397
GR1696.0     2655   1696.5       2692    1693.0       2852    1704.0      3032    1700.0      3050
GR1696.0     3060   1696.0       3685    1700.0       3695    1700.0      5070    1704.0      7185
GR1708.0     7470   1708.0       7690    1710.0       9230
ET          7.1                                       3032
X1  2.301     53      2250      2395         87        87        87
X2                                                                                          15
BT          6     2000   1695.0    1695.0      2250   1695.0    1695.0    2251.9    1696.3    1686.8
BT2394.1      1693.1    1686.8      2395    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0     100   1712.0       120    1708.0        260    1704.0       950    1700.0      1160
GR1700.0    1330   1696.0      1450    1695.0       2000    1695.0      2250    1692.3    2251.8
GR1686.8    2251.9    1686.8    2261.8    1692.3    2261.9    1692.3    2266.5    1686.8    2266.6
GR1686.8    2276.5    1692.3    2276.6    1692.3    2281.2    1686.8    2281.3    1686.8    2291.2
GR1692.3    2291.3    1692.3    2295.9    1686.8    2296.0    1686.8    2305.9    1692.3    2306.0
GR1692.3    2310.6    1686.8    2310.7    1686.8    2320.6    1692.3    2320.7    1692.3    2325.3
GR1686.8    2325.4    1686.8    2335.3    1692.3    2335.4    1692.3    2340.0    1686.8    2340.1
GR1686.8    2350.0    1692.3    2350.1    1692.3    2354.7    1686.8    2354.8    1686.8    2364.7
GR1692.3    2364.8    1692.3    2369.4    1686.8    2369.5    1686.8    2379.4    1692.3    2379.5
GR1692.3    2394.1    1686.8    2394.2    1686.8    2394.1    1692.3    2394.2    1695.0      2395
GR1696.0     2655   1696.5       2692    1693.0       2852    1704.0      3032    1700.0      3050
GR1696.0     3060   1696.0       3685    1700.0       3695    1700.0      5070    1704.0      7185
GR1708.0     7470   1708.0       7690    1710.0       9230
ET          7.1                                       3032
X1  2.302     25      2250      2395         1          1         1
GR1716.0     100   1712.0       120    1708.0        260    1704.0       950    1700.0      1160
GR1700.0    1330   1696.0      1450    1695.0       2000    1695.0      2250    1686.8      2252
GR1685.8    2394   1695.0      2395    1696.0       2655    1696.5      2692    1693.0      2852
GR1704.0    3032   1700.0      3050    1696.0       3060    1696.0      3685    1700.0      3695
GR1700.0    5070   1704.0      7185    1708.0       7470    1708.0      7690    1710.0      9230
ET          7.1                                       2995
X1   2.31     44      2181      2420         50        50        50
GR1716.0     250   1712.0       270    1708.0        430    1704.0       790    1700.0      1000
GR1696.0    1410   1696.0      1505    1700.0       1515    1700.0      1620    1704.0      1670
GR1704.0    1930   1700.0      1940    1696.7       2000    1696.7      2032    1694.9      2102
GR1694.9    2154   1696.5      2172    1698.0       2181    1694.2      2198    1690.1      2208
GR1690.1    2223   1689.0      2229    1689.0       2251    1690.8      2279    1693.7      2300
GR1691.1    2364   1693.1      2388    1694.2       2420    1695.4      2443    1695.4      2564
GR1696.5    2600   1696.0      2760    1696.0       2955    1700.0      2965    1704.0      2995
GR1700.0    3005   1696.0      3180    1696.0       3585    1700.0      3595    1700.0      4990
GR1704.0    6950   1708.0      7350    1708.0       7580    1710.0      9120
NC  0.045  0.035     0.03       0.1       0.3
QT          2    24000     94000
ET          7.1                                       2995
X1   2.33                                125        95       110
NC   0.06    0.05     0.03
ET          7.1                                       3045
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X1   2.54        56      2727      2917      1200       900      1116
GR1712.0        705    1708.0       706    1704.0       795    1700.0      1045    1700.0      1615
GR1700.0       1815    1698.0      2100    1697.8      2578    1697.7      2690    1698.2      2703
GR1695.2       2710    1695.2      2727    1691.0      2744    1691.8      2793    1691.4      2843
GR1690.0       2872    1691.0      2856    1695.3      2917    1701.4      3025    1702.4      3045
GR1701.8       3121    1701.8      3191    1700.6      3239    1700.6      3326    1699.1      3365
GR1697.7       3430    1696.9      3499    1696.8      3561    1696.8      3577    1701.0      3670
GR1700.0       3720    1700.0      5070    1704.0      7190    1708.0      7640    1708.0      7875
GR1710.0       8640
ET                7.1                                                                3671
X1   2.78        34      3417      3503       950       900      1240
K2                                                                                      15
GR1712.0          0    1708.0       305    1704.0       885    1704.0      2120    1704.0      2260
GR1704.0       2450    1704.0      3380    1705.2      3417    1705.2      3417    1705.2      3417
GR1705.2       3417    1693.6      3427    1691.9      3431    1691.3      3434    1691.3      3449
GR1690.9       3451    1690.9      3473    1691.6      3496    1702.7      3503    1703.5      3671
GR1702.6       3704    1701.9      3718    1701.9      3726    1701.9      3742    1703.0      3748
GR1702.8       3778    1702.5      4003    1701.5      4234    1702.5      4359    1703.5      4460
GR1702.5       5070    1704.0      5640    1708.0      7010    1710.0      7630
NH       5    0.045      9918     0.050     10138     0.045     10362     0.130     12103     0.04
NH   13578
ET                7.1                                                               10173
X1   3.04        36      9918     10138       600      1450      1380
K2                                                                                      15
GR1716.0       5153    1712.0      5553    1708.0      6393    1704.0      7208    1704.0      7323
GR1704.0       7453    1708.0      7573    1708.0      9473    1712.0      9713    1714.1      9798
GR1713.5       9885    1709.3      9918    1708.3      9954    1704.6      9969    1697.0      9987
GR1697.0       9993    1697.0     10012    1699.1     10033    1695.8     10057    1696.9     10067
GR1698.5      10069    1698.0     10076    1696.8     10079    1696.8     10093    1702.8     10108
GR1709.5      10138    1709.7     10173    1708.4     10188    1708.4     10253    1708.4     10268
GR1712.0      10309    1711.9     10335    1711.1     10362    1709.3     10860    1712.0     12103
GR1716.0      13578
MC 0.045      0.045     0.05
X1   3.256       32      9863     10103       800      1250      1144
K2                                                                                      15
GR1728.0       3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0       6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8       9673    1712.4      9783    1714.9      9824    1714.3      9863    1710.1      9907
GR1707.7       9983    1706.8      9995    1706.8     10013    1708.4     10027    1709.9     10066
GR1714.7      10103    1716.1     10159    1716.8     10273    1716.0     10326    1712.0     10545
GR1708.0      10575    1708.0     10655    1712.0     10695    1716.0     11745    1720.0     13155
GR1724.0      13440    1728.0     14900
X1   3.262                                    30         30         30
MC                                0.3        0.5
X1   3.274       53      9900     10100     58.25     68.25     63.25
K2                                                                                      15
X3       10                                                                1712      1712
BT        2      9900    1714.0    1713.0     10100    1714.0    1713.0
GR1728.0       3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0       6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8       9673    1712.4      9783    1714.9      9824    1714.3      9863    1712.0      9680
GR1714.0       9900    1710.0    9923.1    1713.0    9923.2    1713.0    9928.1    1710.0    9928.2
GR1709.0     9949.0    1713.0    9949.1    1713.0    9954.0    1709.0    9954.1    1708.0    9975.0
GR1713.0     9975.1    1713.0    9980.0    1708.0    9980.1    1708.0   10020.0    1713.0   10020.1
GR1713.0    10025.0    1708.0   10025.1    1709.0   10046.0    1713.0   10046.1    1713.0   10051.0
GR1709.0    10051.1    1710.0   10072.0    1713.0   10072.1    1713.0   10077.0    1710.0   10077.1
GR1714.0      10100    1712.0     10120    1716.1     10159    1716.8     10273    1716.0     10326
GR1712.0      10545    1708.0     10575    1708.0     10655    1712.0     10695    1716.0     11745
GR1720.0      13155    1724.0     13440    1728.0     14900
X1   3.28        32      9863     10103     43.25     53.25     43.25
GR1728.0       3820    1724.0      4305    1720.0      4475    1716.0      5215    1712.0      5340
GR1708.0       6620    1708.0      6775    1708.0      6920    1708.0      8135    1712.0      9410
GR1713.8       9673    1712.4      9783    1714.9      9824    1714.3      9853    1710.1      9907
GR1707.7       9983    1706.8      9995    1706.8     10013    1708.4     10027    1709.9     10066
GR1714.7      10103    1716.1     10159    1716.8     10273    1716.0     10326    1712.0     10545
GR1708.0      10575    1708.0     10655    1712.0     10695    1716.0     11745    1720.0     13155
GR1724.0      13440    1728.0     14900
MC                                0.1        0.3
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NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168    0.13
NH   13430    0.040     15535
K1    3.47       31      9942    10056        620     1000        976
K2                                                                              15
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1717.4     9650   1717.2     9717   1716.8     9830   1715.1     9886
GR1716.7     9914   1716.5     9942   1709.8    10000   1710.7    10017   1711.6    10056
GR1713.4    10076   1718.9    10168   1720.1    10218   1716.7    10299   1717.0    10655
GR1720.0    10955   1720.0    11970   1724.0    12885   1728.0    13430   1728.0    14405
GR1732.0    15535
K1    3.49                                 120      120      120
NC                        0.3      0.5
NH       6    0.045      9552    0.028      9952    0.023     10048    0.028     10168    0.13
NH   13430    0.040     15535
K1   3.506       39      9952    10048         84       84       84
K2                                                                              15
K3       10                                                1716.7   1713.4
BT        2      9952   1718.0   1716.0    10048   1719.0   1716.0
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1717.4     9650   1717.2     9717   1716.8     9830   1715.1     9886
GR1716.7     9914   1718.0     9952   1712.2   9952.1   1712.2   9986.9   1716.0   9987.0
GR1716.0   9992.4   1712.2   9992.5   1712.2  10007.3   1716.0  10007.4   1716.0  10012.9
GR1712.2  10013.0   1712.2  10047.9   1718.0    10048   1713.4    10076   1718.9    10168
GR1720.1    10218   1716.7    10299   1717.0    10655   1720.0    10955   1720.0    11970
GR1724.0    12885   1728.0    13430   1728.0    14405   1732.0    15535
NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168    0.13
NH   13430    0.040     15535
X1    3.51       31      9942    10056         44       44       44
GR1732.0     3280   1728.0     3300   1724.0     3320   1724.0     4225   1724.0     4570
GR1720.0     4740   1716.0     5010   1712.0     6840   1712.0     6970   1716.0     9480
GR1717.5     9552   1717.4     9650   1717.2     9717   1716.8     9830   1715.1     9886
GR1716.7     9914   1716.5     9942   1709.8    10000   1710.7    10017   1711.6    10056
GR1713.4    10076   1718.9    10168   1720.1    10218   1716.7    10299   1717.0    10655
GR1720.0    10955   1720.0    11970   1724.0    12885   1728.0    13430   1728.0    14405
GR1732.0    15535
NC                        0.1      0.3
NH       5    0.045      9645    0.028      9897    0.023     10222    0.110     12895    0.045
NH   14765
K1    3.69       33      9897    10222        950      950      908
K2                                                                              15
GR1732.0     3795   1728.0     3880   1724.0     3970   1724.0     4515   1720.0     5705
GR1716.0     6660   1716.0     6785   1720.0     7375   1720.0     8060   1721.7     8100
GR1720.0     8140   1720.0     9320   1724.0     9535   1728.6     9645   1731.1     9681
GR1721.4     9747   1720.7     9780   1720.1     9861   1720.3     9897   1715.4     9930
GR1716.8     9971   1715.2     9954   1715.2    10005   1715.4    10025   1715.4    10035
GR1719.0    10059   1723.8    10222   1720.4    10355   1724.0    10545   1724.0    12895
GR1728.0    13735   1728.0    14075   1732.0    14765
NH       7    0.045      6875    0.130      9105    0.028      9921    0.023     10111    0.028
NH   10364    0.110     12500    0.045     14640
K1    3.86       50      9921    10111        950      880      908
K2                                                                              15
GR1740.0     3430   1736.0     3685   1732.0     4030   1728.0     4505   1724.0     5940
GR1724.0     6875   1724.0     6875   1724.0     8840   1727.9     9105   1727.9     9177
GR1724.7     9134   1724.7     9203   1725.9     9230   1728.8     9255   1728.0     9326
GR1728.0     9410   1727.4     9426   1725.0     9448   1723.8     9544   1723.8     9613
GR1724.9     9619   1724.9     9624   1724.2     9629   1723.2     9637   1723.2     9653
GR1725.1     9656   1725.3     9725   1726.3     9762   1726.3     9828   1726.3     9875
GR1725.0     9921   1721.3     9941   1720.3     9994   1719.2     9997   1719.2    10002
GR1720.7    10004   1720.7    10038   1723.9    10078   1727.2    10111   1729.3    10137
GR1728.1    10165   1726.9    10221   1726.2    10283   1726.7    10364   1724.0    10960
GR1724.0    11920   1728.0    12500   1728.0    13260   1729.8    13910   1732.0    14640
NH       7    0.050      5160    0.130      9619    0.030      9913    0.028     10100    0.030
NH   10271    0.130     12480    0.045     14210
X1    4.04       38      9913    10100        1000      900      960
X2                                                                              15
GR1736.0     3440   1732.0     4945   1732.0     5160   1732.0     8340   1728.0     8740
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GR1732.0     9455    1732.0     9585    1729.5     9615    1729.9     9650    1732.4     9672
GR1732.4     9771    1729.9     9794    1729.9     9827    1729.2     9913    1722.0     9949
GR1721.7     9994    1721.0     9997    1721.0    10003    1722.5    10005    1722.1    10047
GR1727.4    10079    1730.9    10100    1731.3    10113    1732.0    10136    1731.5    10172
GR1730.1    10196    1730.5    10232    1731.2    10271    1731.2    10317    1726.6    10333
GR1726.6    10399    1731.5    10413    1731.5    10442    1728.0    10890    1728.0    12400
GR1732.0    13450    1732.0    13980    1736.0    14210
NH      9    0.045     4310     0.130     7565     0.040     8365     0.130     8720     0.030
NH   9900    0.028    10100      0.03    10247     0.130    12915     0.100    14520
X1   4.23       36     9900    10247     1109       950      1020
X2                                                                                      15
GR1740.0     3570    1736.0     3850    1736.0     4310    1736.0     6095    1732.0     7375
GR1732.0     7565    1736.0     8140    1736.0     8365    1736.0     8720    1733.0     9738
GR1732.4     9900    1723.6     9945    1723.1     9987    1723.0     9996    1723.0    10003
GR1723.5    10003    1724.8    10040    1727.3    10053    1729.7    10080    1730.8    10095
GR1732.5    10180    1733.6    10247    1734.5    10350    1729.5    10363    1730.1    10427
GR1733.8    10440    1733.7    10515    1731.3    10528    1731.2    10616    1730.2    10628
GR1731.5    10655    1733.9    10661    1732.0    10860    1732.0    12915    1736.0    13980
GR1738.0    14920
NH      5    0.045     3880     0.130     8050     0.050     9935     0.045    10132     0.100
NH  15890
X1   4.42       27     9935    10132      992       992       992
X2                                                                                      15
GR1748.0     2045    1744.0     2335    1740.0     3060    1740.0     3515    1736.0     3675
GR1736.0     3880    1736.0     6450    1736.5     8050    1739.7     8731    1738.7     9784
GR1737.4     9813    1737.0     9835    1724.9     9956    1724.8    10000    1724.2    10052
GR1732.3    10072    1735.4    10095    1737.6    10132    1737.6    10179    1738.0    10236
GR1736.0    10750    1735.6    11580    1736.0    12365    1740.0    13440    1744.0    14870
GR1744.0    15500    1748.0    15890
EJ
T1          CORECD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR (d/s reach)
J1                3                                                 0.5          1702.2
J2     15                -1
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ER
EOF..
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      33
    2.23        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    2.23        Centerline Station at 2506
    2.27        Centerline Station at 2219
   2.284        Centerline Station at 2323
   2.285        Centerline Station at 2323
   2.301        **** Vegas Valley Drive (NB) ****
   2.301        2* Debris Loading
   2.301        Centerline Station at 2323
   2.302        Centerline Station at 2323
    2.31        Centerline Station at 2240
    2.33        Centerline Station at 2240
    2.54        Centerline Station at 2872
    2.78        Centerline Station at 3462
    3.04        Centerline Station at 10000
   3.256        Centerline Station at 10000
   3.262        Centerline Station at 10000
   3.274        **** Winterwood Golf Course Bridge #1**
   3.274        2* Debris Loading
   3.274        Single cross section normal bridge
   3.274        Centerline Station at 10000
    3.28        Centerline Station at 10000
    3.47        Centerline Station at 10000
    3.49        Centerline Station at 10000
   3.506        **** Winterwood Golf Course Bridge #2**
   3.506        2* Debris Loading
   3.506        Single cross section normal bridge
   3.506        Centerline Station at 10000
    3.51        Centerline Station at 10000
    3.69        Centerline Station at 10000
    3.36        Centerline Station at 10000
    4.04        Centerline Station at 10000
    4.23        Centerline Station at 10000
    4.42        Centerline Station at 10000
T1              CCRFCD/COE OVERFLOW STUDY
T2              JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3              LAS VEGAS WASH - NONIMAGING FLOWS (d/s Reach)
J1                    2                                          0.5          1695.7
J2          1                -1
J3        150
NC    0.030       0.10      0.035        0.1        0.3
ET          3       2500       2700       3000
X1       2.23         38       2456       2740
GR1716.0          900  1712.0  1110  1708.0  1250  1704.0  1450  1700.0  1605
GR1696.0         1885  1692.0  1910  1692.0  1935  1693.7  2000  1694.4  2187
GR1694.5         2353  1694.2  2420  1692.9  2429  1696.0  2456  1692.6  2482
GR1692.6         2494  1688.2  2506  1689.3  2552  1689.8  2560  1689.7  2606
GR1689.7         2628  1690.3  2646  1692.1  2660  1691.2  2689  1691.5  2701
GR1694.0         2740  1692.3  3010  1690.2  3022  1692.7  3056  1702.3  3092
GR1700.0         3120  1696.0  3130  1696.0  3980  1700.0  3985  1701.7  4020
GR1700.0         4060  1700.0  5800  1704.0  7440
NC    0.03       0.06      0.030
X1       2.27         38       2155       2345        220        150        203
GR1716.0            1  1712.0    35  1708.0   225  1704.0   880  1700.0  1085
GR1700.0         1200  1696.0  1350  1696.0  1500  1695.5  2000  1695.5  2032
GR1694.5         2093  1693.9  2120  1696.3  2142  1695.3  2155  1693.4  2165
GR1689.7         2175  1689.7  2210  1688.5  2219  1689.9  2252  1690.1  2277
GR1693.1         2297  1693.1  2337  1693.5  2345  1694.1  2385  1694.7  2405
GR1694.8         2550  1696.5  2600  1693.0  2760  1704.0  2930  1700.0  2945
GR1696.0         2955  1696.0  3670  1700.0  3680  1700.0  5025  1704.0  7140
GR1708.0         7380  1708.0  7590  1710.0  9105
NC                             0.3        0.5
X1    2.284         25       2250       2395        100        100        100
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X3                                                  3032    1704.0
GR1716.0      100    1712.0      120    1708.0      260    1704.0      950    1700.0     1160
GR1700.0     1330    1696.0     1450    1695.0     2000    1695.0     2250    1686.8     2252
GR1686.8     2394    1695.0     2395    1696.0     2655    1696.5     2692    1693.0     2852
GR1704.0     3032    1700.0     3050    1696.0     3060    1696.0     3685    1700.0     3695
GR1700.0     5070    1704.0     7185    1708.0     7470    1708.0     7690    1710.0     9230
X1  2.285      63      2250      2395         1          1          1
K2                                                                                      15
X3                                                  3032    1704.0
BT       6   2000    1695.0    1695.0     2248    1695.0    1695.0    2249.9    1696.3    1686.8
BT2396.1  1696.3    1686.8      2397    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0      100    1712.0      120    1708.0      260    1704.0      950    1700.0     1160
GR1700.0     1330    1696.0     1450    1695.0     2000    1695.0     2248    1692.3    2249.8
GR1686.8    2249.9   1686.8    2263.8    1692.3    2263.9    1692.3    2264.5    1686.8    2264.6
GR1686.8    2278.5   1692.3    2279.6    1692.3    2279.2    1686.8    2279.3    1686.8    2293.2
GR1692.3    2293.3   1692.3    2293.9    1686.8    2294.0    1686.8    2307.9    1692.3    2308.0
GR1692.3    2308.6   1686.8    2308.7    1686.8    2322.6    1692.3    2322.7    1692.3    2323.3
GR1686.8    2323.4   1686.8    2337.3    1692.3    2337.4    1692.3    2338.0    1686.8    2338.1
GR1686.8    2352.0   1692.3    2352.1    1692.3    2352.7    1686.8    2352.8    1686.8    2366.7
GR1692.3    2366.8   1692.3    2367.4    1686.8    2367.5    1686.8    2381.4    1692.3    2381.5
GR1692.3    2382.1   1686.8    2382.2    1686.8    2396.1    1692.3    2396.2    1695.0      2397
GR1696.0      2655   1696.5      2692    1693.0      2852    1704.0      3032    1700.0      3050
GR1696.0      3060   1696.0      3685    1700.0      3695    1700.0      5070    1704.0      7185
GR1708.0      7470   1708.0      7690    1710.0      9230
X1  2.301      63      2250      2395        87         87         87
K2                                                                                      15
X3                                                  3032    1704.0
BT       6   2000    1695.0    1695.0     2250    1695.0    1695.0    2251.9    1696.3    1686.8
BT2394.1  1693.1   1686.8      2395    1695.0    1695.0      2655    1696.0    1696.0
GR1716.0      100    1712.0      120    1708.0      260    1704.0      950    1700.0     1160
GR1700.0     1330    1696.0     1450    1695.0     2000    1695.0     2250    1692.3    2251.8
GR1686.8    2251.9   1686.8    2261.8    1692.3    2261.9    1692.3    2266.5    1686.8    2266.6
GR1686.8    2276.5   1692.3    2276.6    1692.3    2281.2    1686.8    2281.3    1686.8    2291.2
GR1692.3    2291.3   1692.3    2295.9    1686.8    2296.0    1686.8    2305.9    1692.3    2306.0
GR1692.3    2310.6   1686.8    2310.7    1686.8    2320.6    1692.3    2320.7    1692.3    2325.3
GR1686.8    2325.4   1686.8    2335.3    1692.3    2335.4    1692.3    2340.0    1686.8    2340.1
GR1686.8    2350.0   1692.3    2350.1    1692.3    2354.7    1686.8    2354.8    1686.8    2364.7
GR1692.3    2364.8   1692.3    2369.4    1686.8    2369.5    1686.8    2379.4    1692.3    2379.5
GR1692.3    2384.1   1686.8    2394.2    1686.8    2394.1    1692.3    2394.2    1695.0      2395
GR1696.0      2655   1696.5      2692    1693.0      2852    1704.0      3032    1700.0      3050
GR1696.0      3060   1696.0      3685    1700.0      3695    1700.0      5070    1704.0      7185
GR1708.0      7470   1708.0      7690    1710.0      9230
X1  2.302        25      2250      2395         1          1
X3                                                  3032    1704.0
GR1716.0      100    1712.0      120    1708.0      260    1704.0      950    1700.0     1160
GR1700.0     1330    1696.0     1450    1695.0     2000    1695.0     2250    1686.8     2252
GR1686.8     2394    1695.0     2395    1696.0     2655    1696.5     2692    1693.0     2852
GR1704.0     3032    1700.0     3050    1696.0     3060    1696.0     3685    1700.0     3695
GR1700.0     5070    1704.0     7185    1708.0     7470    1708.0     7690    1710.0     9230
X1   2.31        44      2181      2420         50         50         50
X3                                          1930    1704.0     2995    1704.0
GR1716.0      250    1712.0      270    1708.0      430    1704.0      790    1700.0     1000
GR1696.0     1410    1696.0     1505    1700.0     1515    1700.0     1620    1704.0     1670
GR1704.0     1930    1700.0     1940    1696.7     2000    1696.7     2032    1694.9     2102
GR1694.9     2164    1696.6     2172    1698.0     2181    1694.2     2198    1690.1     2208
GR1690.1     2223    1689.0     2229    1689.0     2251    1690.8     2279    1693.7     2300
GR1691.1     2354    1693.1     2388    1694.2     2420    1695.4     2443    1695.4     2564
GR1696.5     2602    1696.0     2760    1696.0     2955    1700.0     2965    1704.0     2995
GR1700.0     3005    1696.0     3180    1696.0     3585    1700.0     3595    1700.0     4990
GR1704.0     5950    1708.0     7350    1709.3     7589    1710.0     9120
NC  0.045   0.035      0.03       0.1        0.3
X1   2.33                                   125         95        110
X3                                          1930    1704.0     2995    1704.0
NC   0.06    0.05      0.03
X1   2.54        36      2727      2917      1200        900       1116
X3                                                  3045    1702.4
GR1712.0      705    1708.0      706    1704.0      785    1700.0     1045    1700.0     1815
GR1700.0     1815    1698.0     2100    1697.8     2578    1697.7     2690    1698.2     2703
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GR1695.2     2710  1695.2     2727  1541.9     2744  1691.8     2793  1691.4     2843
GR1690.8     2872  1691.9     2895  1695.3     2917  1701.4     3025  1702.4     3045
GR1701.8     3121  1701.8     3181  1700.6     3239  1700.6     3326  1695.1     3365
GR1697.7     3430  1696.9     3499  1696.8     3561  1696.8     3577  1701.0     3670
GR1700.0     3720  1700.0     5070  1704.0     7000  1708.0     7450  1708.0     7685
GR1710.0     8450
K1   2.78      34     3417     3503      950      900     1240
K3                  3417   1705.2     3671   1703.5
GR1712.0        0  1708.0      305   1704.0      885   1704.0     2120  1704.0     2260
GR1704.0     2450  1704.0     3380   1705.2     3417   1705.2     3417  1705.2     3417
GR1705.2     3417  1693.6     3427   1691.9     3431   1691.3     3434  1691.3     3449
GR1690.9     3451  1690.9     3473   1691.6     3496   1702.7     3503  1703.5     3671
GR1702.6     3704  1701.9     3718   1701.9     3726   1701.9     3742  1703.0     3748
GR1702.8     3778  1702.5     4003   1701.5     4234   1702.5     4359  1703.5     4460
GR1702.5     5070  1704.0     5640   1708.0     7010   1710.0     7630
VH         5 0.045     9918  0.050    13138  0.045    10362  0.130    12103  0.04
VH   13578
K1   3.04      36     9918    10138      600     1450     1380
K3                  9798   1714.1
GR1716.0     5153  1712.0     5553   1708.0     6393   1704.0     7208  1704.0     7323
GR1704.0     7453  1708.0     7573   1708.0     9473   1712.0     9713  1714.1     9798
GR1713.5     9885  1709.3     9918   1708.3     9954   1704.6     9969  1697.0     9987
GR1697.0     9993  1697.0    10012   1699.1    10033   1695.8    10057  1696.0    10067
GR1698.5    10069  1698.0    10076   1696.8    10079   1696.8    10093  1702.8    10108
GR1709.5    10138  1709.7    10173   1708.4    10188   1708.4    10253  1708.4    10268
GR1712.0    10309  1711.9    10325   1711.1    10362   1709.3    10860  1712.0    12103
GR1716.0    13578
VC  0.045   0.045     0.05
K1  3.256      32     9863    10103      800     1250     1144
K3                  9824   1714.9    10273   1716.8
GR1728.0     3820  1724.0     4305   1720.0     4475   1716.0     5215  1712.0     5340
GR1708.0     6620  1708.0     6775   1708.0     6920   1708.0     8135  1712.0     9410
GR1713.8     9673  1712.4     9783   1714.9     9824   1714.3     9863  1710.1     9907
GR1707.7     9983  1706.8     9995   1706.8    10013   1708.4    10027  1709.9    10066
GR1714.7    10103  1716.1    10159   1716.8    10273   1716.0    10326  1712.0    10545
GR1708.0    10575  1708.0    10655   1712.0    10695   1716.0    11745  1720.0    13155
GR1724.0    13440  1728.0    14900
K1  3.262                                30       30       30
K3                          9824   1714.9    10273   1716.8
NC                           0.3      0.5
ET                 7.1      7.1      7.1                        9824    10273
X1  3.274      53     9900    10100    58.25    68.25    63.25
X2                                                                          15
BT         2 9900  1714.0   1713.0    10100  1714.0   1713.0
GR1728.0     3820  1724.0     4305   1720.0     4475   1716.0     5215  1712.0     5340
GR1708.0     6620  1708.0     6775   1708.0     6920   1708.0     8135  1712.0     9410
GR1713.8     9673  1712.4     9783   1714.9     9824   1714.3     9863  1712.0     9880
GR1714.0     9900  1710.0   9923.1   1713.0   9923.2   1713.0   9928.1  1710.0   9928.2
GR1709.0   9949.0  1713.0   9949.1   1713.0   9954.0   1709.0   9954.1  1708.0   9975.0
GR1713.0   9975.1  1713.0   9980.0   1708.0   9980.1   1708.9  10020.0  1713.0  10020.1
GR1713.0  10025.0  1708.0  10025.1   1709.0  10046.0   1713.0  10046.1  1713.0  10051.0
GR1709.0  10051.1  1710.0  10072.0   1713.0  10072.1   1713.0  10077.0  1710.0  10077.1
GR1714.0    10100  1712.0    10120   1716.1    10159   1716.8    10273  1716.0    10326
GR1712.0    10545  1708.0    10575   1708.0    10655   1712.0    10695  1716.0    11745
GR1720.0    13155  1724.0    13440   1728.0    14900
ET                 7.1      7.1      7.1                        9824    10273
K1   3.28      32     9863    10103     43.25    53.25    43.25
GR1728.0     3820  1724.0     4305   1720.0     4475   1716.0     5215  1712.0     5340
GR1708.0     6620  1708.0     6775   1708.0     6920   1708.0     8135  1712.0     9410
GR1713.8     9673  1712.4     9783   1714.9     9824   1714.3     9863  1710.1     9907
GR1708.0     9983  1708.0     9995   1708.0    10013   1708.4    10027  1709.9    10066
GR1714.7    10103  1716.1    10159   1716.8    10273   1716.0    10326  1712.0    10545
GR1708.0    10575  1708.0    10655   1712.0    10695   1716.0    11745  1720.0    13155
GR1724.0    13440  1728.0    14900
NC                           0.1      0.3
NH         6 0.045     9552  0.028     9942  0.023    10056  0.028    10168  0.13
NH   13430 0.040    15535
ET                 7.1      7.1      7.1                        9552    10218
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X1   3.47        31      9942     10213       620      1000       976
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1717.4      9650    1717.2      9717    1716.8      9830    1715.1      9886
GR1716.7      9914    1716.5      9942    1709.8     10000    1710.7     10017    1711.6     10056
GR1713.4     10076    1718.9     10168    1720.1     10218    1716.7     10299    1717.0     10655
GR1720.0     10955    1720.0     11970    1724.0     12885    1728.0     13430    1728.0     14405
GR1732.0     15535
ET              7.1      7.1      7.1                          9552     10218
X1   3.49                                     120       120       120
NC                                0.3       0.5
NH       6    0.045      9552    0.028      9952    0.023     10048    0.028     10168     0.13
NH   13430    0.040     15535
ET              7.1      7.1      7.1                          9610     10218
X1   3.506       40      9952     10218        84        84        84
X2                                                                              15
BT           2  9952    1718.0    1716.0    10048    1718.0    1716.0
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1720.0      9610    1717.4      9650    1717.2      9717    1716.8      9830
GR1715.1      9886    1716.7      9914    1718.0      9952    1712.2    9952.1    1712.2    9986.9
GR1716.0    9987.0    1716.0    9992.4    1712.2    9992.5    1712.2  10007.3    1716.0  10007.4
GR1716.0  10012.9     1712.2  10013.0     1712.2  10047.9     1718.0     10048    1713.4     10076
GR1718.9     10158    1720.1     10218    1716.7     10299    1717.0     10655    1720.0     10955
GR1720.0     11970    1724.0     12885    1728.0     13430    1728.0     14405    1732.0     15535
NH       6    0.045      9552    0.028      9942    0.023     10056    0.028     10168     0.13
NH   13430    0.040     15535
ET              7.1      7.1      7.1                          9610     10218
X1   3.51        32      9942     10218        44        44        44
GR1732.0      3280    1728.0      3300    1724.0      3320    1724.0      4225    1724.0      4570
GR1720.0      4740    1716.0      5010    1712.0      6840    1712.0      6970    1716.0      9480
GR1717.5      9552    1720.0      9610    1717.4      9650    1717.2      9717    1716.8      9830
GR1715.1      9886    1716.7      9914    1716.5      9942    1712.0     10000    1712.0     10017
GR1712.0     10056    1713.4     10076    1718.9     10168    1720.1     10218    1716.7     10299
GR1717.0     10655    1720.0     10955    1720.0     11970    1724.0     12885    1728.0     13430
GR1728.0     14405    1732.0     15535
NC                                0.1       0.3
NH       5    0.045      9645    0.028      9897    0.023     10222    0.110     12895     0.045
NH   14765
X1   3.69        33      9897     10222       950       850       908
X3                               9681    1731.1     10222    1723.8
GR1732.0      3795    1728.0      3880    1724.0      3970    1724.0      4515    1720.0      5705
GR1716.0      6660    1716.0      6785    1720.0      7375    1720.0      8060    1721.7      8100
GR1720.0      8140    1720.0      9320    1724.0      9535    1728.6      9645    1731.1      9681
GR1721.4      9747    1720.7      9780    1720.1      9861    1720.3      9897    1715.4      9930
GR1716.8      9971    1715.2      9994    1715.2     10005    1715.4     10025    1715.4     10035
GR1719.0     10059    1723.8     10222    1720.4     10355    1724.0     10545    1724.0     12895
GR1728.0     13735    1728.0     14075    1732.0     14765
NH       7    0.045      6875    0.130      9105    0.028      9921    0.023     10111     0.028
NH   10364    0.110     12500    0.045     14640
X1   3.86        50      9921     10111       950       880       908
X3                               9828    1726.3     10137    1729.3
GR1740.0      3430    1736.0      3685    1732.8      4030    1728.0      4585    1724.0      5940
GR1724.0      6075    1724.0      6875    1724.0      8840    1727.9      9105    1727.9      9177
GR1724.7      9184    1724.7      9203    1725.9      9230    1728.8      9255    1728.0      9326
GR1728.0      9410    1727.4      9426    1725.0      9448    1723.8      9544    1723.8      9613
GR1724.9      9619    1724.9      9624    1724.2      9629    1723.2      9637    1723.2      9653
GR1725.1      9656    1725.3      9725    1726.0      9762    1726.3      9828    1726.3      9875
GR1725.0      9921    1721.3      9941    1720.3      9994    1719.2      9997    1719.2     10002
GR1720.7     10004    1720.7     10038    1723.9     10078    1727.2     10111    1729.3     10137
GR1728.1     10165    1726.9     10221    1726.2     10283    1726.7     10364    1724.0     10960
GR1724.0     11920    1728.0     12500    1728.0     13260    1729.8     13910    1732.0     14640
NH       7    0.050      5160    0.130      9619    0.030      9913    0.028     10100     0.030
NH   10271    0.130     12400    0.045     14210
X1   4.04        38      9913     10100      1000       900       960
X2                                                                              15
X3                               9672    1732.4     10317    1731.2
GR1736.0      3440    1732.0      4945    1732.0      5160    1732.0      8340    1728.0      8740
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GR1732.0    9485   1732.0    9585   1729.5    9619   1729.9    9650   1732.4    9672
GR1732.4    9771   1729.9    9784   1729.9    9827   1729.2    9913   1722.0    9949
GR1721.7    9934   1721.0    9997   1721.0   10003   1722.5   10005   1722.1   10047
GR1727.4   10079   1730.9   10100   1731.8   10113   1732.0   10136   1731.5   10172
GR1730.1   10196   1730.5   10232   1731.2   10271   1731.2   10317   1726.6   10333
GR1726.6   10399   1731.5   10413   1731.5   10442   1728.0   10890   1728.0   12400
GR1732.0   13450   1732.0   13560   1736.0   14210
NH       9 0.045    4310    0.130    7565    0.040    8365    0.130    8720    0.030
NH    9900 0.028   10100    0.03    10247    0.130   12915    0.100   14920
X1   4.23    36    9900    10247    1100     950     1020
X3                          8140    1736.0   10350   1734.5
GR1740.0    3570   1736.0    3950   1736.0    4310   1736.0    6095   1732.0    7375
GR1732.0    7555   1736.0    8140   1736.0    8365   1736.0    8720   1733.0    9738
GR1732.4    9900   1723.6    9945   1723.1    9987   1723.0    9996   1723.0   10003
GR1723.5   10003   1724.8   10040   1727.3   10053   1729.7   10030   1730.8   10095
GR1732.5   10180   1733.6   10247   1734.5   10350   1729.5   10363   1730.1   10427
GR1733.8   10440   1733.7   10515   1731.0   10528   1731.2   10616   1730.2   10628
GR1731.5   10655   1733.9   10661   1732.0   10860   1732.0   12915   1736.0   13580
GR1738.0   14920
NH       5 0.045    3880    0.130    8050    0.050    9935    0.045   10132    0.100
NH 15890
X1   4.42    27    9935    10132     992     992     992
X3                          9731   1739.7   10236   1738.0
GR1748.0    2045   1744.0    2335   1740.0    3060   1740.0    3515   1736.0    3675
GR1736.0    3880   1736.0    6450   1736.5    8050   1739.7    9731   1739.7    9794
GR1737.4    9813   1737.0    9935   1724.9    9956   1724.8   10000   1724.2   10052
GR1732.3   10072   1735.4   10095   1737.6   10132   1737.6   10179   1738.0   10236
GR1736.0   10750   1735.6   11580   1736.0   12365   1740.0   13440   1744.0   14870
EJ
T1         CORFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - NONDMAGING FLOWS (d/s Reach)
J1             3                                        0.5              1695.7
J2       2              -1
T1         CORFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - NONDMAGING FLOWS (d/s Reach)
J1             4                                        0.5              1695.7
J2      15             -1


ER
EOF..
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1**********************************************
 *  WATER SURFACE PROFILES                    *
 *  VERSION OF NOVEMBER 1976                  *
 *  UPDATED AUGUST 1983                       *
 *                                            *
 *  RUN DATE   5-MAY-88 TIME   12:54:13       *
 **********************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
*****************************************
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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X           XXXXX     XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
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5-MAY-88 12:54:14 PAGE 1

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR (D/S REACH)
J1  ICHECK     INQ        NINN       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          0.         2.         0.         0.  0.000000       0.00       0.5        0.  1698.800       0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLOC      IBW        CHNIM      ITRACE
          1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
        150.000      .000       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC          0.030      0.100      0.035      0.100      0.300      0.000      0.000      0.000      0.000      0.000
GT          2.000  24000.000  84000.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
ET          0.000      7.100      0.000      0.000      0.000      0.000    500.000   3092.000      0.000      0.000
                   SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                   CENTERLINE STATION AT 2506
X1          2.230     38.800   2456.000   2740.000      0.000      0.000      0.000      0.000      0.000      0.000
GR       1716.000   900.000   1712.000   1110.000   1708.000   1250.000   1704.000   1450.000   1700.000   1605.000
GR       1696.000  1385.000   1692.000   1910.000   1692.000   1935.000   1693.700   2000.000   1694.400   2187.000
GR       1694.500  2353.000   1694.200   2420.000   1692.900   2429.000   1696.000   2456.000   1692.600   2482.000
GR       1692.600  2494.000   1688.200   2506.000   1689.300   2552.000   1689.800   2560.000   1689.700   2606.000
GR       1689.700  2628.000   1690.300   2646.000   1692.100   2660.000   1691.200   2689.000   1691.500   2701.000
GR       1694.000  2740.000   1692.300   3010.000   1690.200   3022.000   1692.700   3056.000   1702.300   3092.000
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GR	1700.000	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.000	4060.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	2930.000	0.000	0.000
		CENTERLINE STATION AT 2219								
X1	2.278	38.000	2155.000	2345.000	220.000	150.000	200.000	0.000	0.000	0.000
GR	1716.000	1.000	1712.000	35.000	1708.000	225.000	1704.000	880.000	1700.000	1085.000
GR	1700.000	1200.000	1696.000	1350.000	1696.000	1500.000	1695.500	2000.000	1695.500	2032.000
GR	1694.500	2093.000	1693.900	2120.000	1696.300	2142.000	1695.300	2155.000	1693.400	2165.000
GR	1689.700	2175.000	1689.700	2210.000	1688.500	2219.000	1689.900	2252.000	1690.100	2277.000
GR	1693.100	2297.000	1693.100	2337.000	1693.500	2345.000	1694.100	2385.000	1694.700	2405.000
GR	1694.800	2550.000	1696.500	2600.000	1693.000	2760.000	1704.000	2930.000	1700.000	2945.000
GR	1696.000	2955.000	1696.000	3670.000	1700.000	3680.000	1700.000	5025.000	1704.000	7140.000
GR	1706.000	7380.000	1708.000	7590.000	1710.000	9105.000	0.000	0.000	0.000	0.000

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NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3032.000	0.000	0.000
		CENTERLINE STATION AT 2323								
X1	2.284	25.000	2250.000	2395.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3032.000	0.000	0.000
		CENTERLINE STATION AT 2323								
X1	2.285	63.000	2248.000	2397.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	6.000	2000.000	1695.000	1695.000	2248.000	1695.000	1695.000	2249.900	1696.300	1686.800
BI	2396.100	1696.300	1686.800	2397.800	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2248.000	1692.300	2249.800
GR	1686.800	2249.900	1686.800	2263.800	1692.300	2263.900	1692.300	2264.500	1686.800	2264.600
GR	1686.800	2278.500	1692.300	2278.600	1692.300	2279.200	1686.800	2279.300	1686.800	2293.200
GR	1692.300	2293.300	1692.300	2293.900	1686.800	2294.000	1686.800	2307.900	1692.300	2308.000
GR	1692.300	2308.600	1686.800	2308.700	1686.800	2322.600	1692.300	2322.700	1692.300	2323.300
GR	1686.800	2323.400	1686.800	2337.300	1692.300	2337.400	1692.300	2338.000	1686.800	2338.100
GR	1686.800	2352.000	1692.300	2352.100	1692.300	2352.700	1686.800	2352.800	1686.800	2366.700
GR	1692.300	2366.800	1692.300	2367.400	1686.800	2367.500	1686.800	2381.400	1692.300	2381.500
GR	1692.300	2382.100	1686.800	2382.200	1686.800	2396.100	1692.300	2396.200	1695.000	2397.300
GR	1696.000	2655.000	1695.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3032.000	0.000	0.000
		**** VEGAS VALLEY DRIVE (NB) ****								
		2' DEBRIS LOADING								
		CENTERLINE STATION AT 2323								
X1	2.301	63.000	2250.000	2395.000	87.000	87.000	87.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	6.000	2000.000	1695.000	1695.000	2250.000	1695.000	1695.000	2251.900	1696.300	1686.800
BT	2394.100	1693.100	1686.800	2395.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1692.300	2251.800
GR	1686.800	2251.900	1686.800	2261.800	1692.300	2261.900	1692.300	2266.500	1686.800	2266.600
GR	1686.800	2276.500	1692.300	2276.600	1692.300	2281.200	1686.800	2281.300	1686.800	2291.200
GR	1692.300	2291.300	1692.300	2295.900	1686.800	2296.000	1686.800	2305.900	1692.300	2306.000
GR	1692.300	2310.600	1686.800	2310.700	1686.800	2320.600	1692.300	2320.700	1692.300	2325.300
GR	1686.800	2325.400	1686.800	2335.300	1692.300	2335.400	1692.300	2340.000	1686.800	2340.100
GR	1686.800	2350.000	1692.300	2350.100	1692.300	2354.700	1686.800	2354.800	1686.800	2364.700
GR	1692.300	2364.800	1692.300	2369.400	1686.800	2369.500	1686.800	2379.400	1692.300	2379.500
GR	1692.300	2384.100	1686.800	2384.200	1686.800	2394.100	1692.300	2394.200	1695.000	2395.000

GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3032.000	0.000	0.000
		CENTERLINE STATION AT 2323								
X1	2.362	25.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	2995.000	0.000	0.000
		CENTERLINE STATION AT 2240								
X1	2.310	44.000	2181.000	2420.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	1716.000	250.000	1712.000	270.000	1708.000	430.000	1704.000	790.000	1700.000	1000.000
GR	1696.000	1410.000	1696.000	1505.000	1700.000	1515.000	1700.000	1620.000	1704.000	1670.000
GR	1704.000	1930.000	1700.000	1940.000	1696.700	2000.000	1696.700	2032.000	1694.900	2102.000
GR	1694.900	2164.000	1696.600	2172.000	1698.000	2181.000	1694.200	2198.000	1690.100	2208.000
GR	1690.100	2223.000	1689.000	2229.000	1689.000	2251.000	1690.800	2279.000	1693.700	2300.000
GR	1691.100	2364.000	1693.100	2388.000	1694.200	2420.000	1695.400	2443.000	1695.400	2564.000
GR	1696.500	2600.000	1696.000	2760.000	1696.000	2955.000	1700.000	2965.000	1704.000	2995.000
GR	1700.000	3005.000	1696.000	3180.000	1696.000	3585.000	1700.000	3595.000	1700.000	4590.000
GR	1704.000	6950.000	1708.000	7350.000	1708.000	7580.000	1710.000	9120.000	0.000	0.000
NC	0.045	0.035	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	2.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	2995.000	0.000	0.000
		CENTERLINE STATION AT 2240								
X1	2.330	0.000	0.000	0.000	125.000	95.000	110.000	0.000	0.000	0.000
NC	0.060	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3045.000	0.000	0.000
		CENTERLINE STATION AT 2872								
X1	2.540	36.000	2727.000	2917.000	1200.000	900.000	1116.000	0.000	0.000	0.000
GR	1712.000	705.000	1708.000	706.000	1704.000	785.000	1700.000	1045.000	1700.000	1815.000
GR	1700.000	1815.000	1698.000	2190.000	1697.800	2576.000	1697.700	2690.000	1698.200	2703.000
GR	1695.200	2710.000	1695.200	2727.000	1691.000	2744.000	1691.800	2793.000	1691.400	2843.000
GR	1690.000	2872.000	1691.000	2896.000	1695.300	2917.000	1701.400	3025.000	1702.400	3045.000
GR	1701.800	3121.000	1701.800	3181.000	1700.600	3239.000	1700.600	3326.000	1699.100	3365.000
GR	1697.700	3430.000	1696.900	3499.000	1696.800	3561.000	1696.800	3577.000	1701.800	3670.000
GR	1700.000	3720.000	1700.000	5070.000	1704.000	7190.000	1708.000	7640.000	1708.000	7875.000
GR	1710.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	3671.000	0.000	0.000
		CENTERLINE STATION AT 3462								
X1	2.780	34.000	3417.000	3503.000	950.000	900.000	1240.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1712.000	0.000	1708.000	305.000	1704.000	885.000	1704.000	2120.000	1704.000	2260.000
GR	1704.000	2450.000	1704.000	3380.000	1705.200	3417.000	1705.200	3417.000	1705.200	3417.000
GR	1705.200	3417.000	1693.600	3427.000	1691.900	3431.000	1691.300	3434.000	1691.300	3449.000
GR	1690.900	3451.000	1690.900	3473.000	1691.600	3496.000	1702.700	3503.000	1703.500	3671.000
GR	1702.600	3704.000	1701.900	3718.000	1701.900	3726.000	1701.900	3742.000	1703.000	3748.000
GR	1702.800	3773.000	1702.500	4003.000	1701.500	4234.000	1702.500	4359.000	1702.500	4460.000
GR	1702.500	5070.000	1704.000	5640.000	1708.000	7010.000	1710.000	7630.000	0.000	0.000

NH	5.000	0.045	9918.000	0.050	10138.000	0.045	10362.000	0.130	12103.000	0.040
NH	13578.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	10173.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	3.040	36.000	9913.000	10138.000	600.000	1450.000	1386.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1716.000	5153.000	1712.000	5553.000	1706.000	6393.000	1704.000	7208.000	1704.000	7323.000
GR	1704.000	7453.000	1708.000	7573.000	1708.000	9473.000	1712.000	9713.000	1714.100	9798.000
GR	1713.500	9885.000	1709.300	9918.000	1708.300	9954.000	1704.600	9969.000	1697.000	9987.000
GR	1697.000	9993.000	1697.000	10012.000	1699.100	10033.000	1695.800	10057.000	1696.000	10067.000
GR	1698.500	10069.000	1698.000	10076.000	1696.800	10079.000	1696.800	10093.000	1702.800	10108.000
GR	1709.500	10138.000	1709.700	10173.000	1708.400	10188.000	1708.400	10253.000	1708.400	10268.000
GR	1712.000	10309.000	1711.900	10335.000	1711.100	10362.000	1709.300	10860.000	1712.000	12103.000
GR	1716.000	13578.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.045	0.045	0.350	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.256	32.000	9863.000	10103.000	800.000	1250.000	1144.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1707.700	9983.000	1706.800	9995.000	1706.800	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.262	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

**** WINTERWOOD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	3.274	53.000	9900.000	10100.000	58.250	68.250	63.250	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1712.000	1712.000	0.000
BI	2.000	9900.000	1714.000	1713.000	10100.000	1714.000	1713.000	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1712.000	9880.000
GR	1714.000	9900.000	1710.000	9922.100	1713.000	9923.200	1713.000	9928.100	1710.000	9928.200
GR	1709.000	9949.000	1713.000	9949.100	1713.000	9954.000	1709.000	9954.100	1708.000	9975.000
GR	1713.000	9975.100	1713.000	9980.000	1708.000	9980.100	1708.000	10020.000	1713.000	10020.100
GR	1713.000	10025.000	1708.000	10025.100	1709.000	10046.000	1713.000	10046.100	1713.000	10051.000
GR	1709.000	10051.100	1710.000	10072.000	1713.000	10072.100	1713.000	10077.000	1710.000	10077.100
GR	1714.000	10100.000	1712.000	10120.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000
GR	1712.000	10545.000	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000
GR	1720.000	13155.000	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	3.280	32.000	9863.000	10103.000	43.250	53.250	43.250	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1707.700	9983.000	1706.800	9995.000	1706.800	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9542.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.470	31.000	9942.000	10056.000	620.000	1000.000	976.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000

GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000
GR	1716.700	9914.000	1716.500	9942.000	1709.800	10000.000	1710.700	10017.000	1711.600	10056.000
GR	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000
GR	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000
GR	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.490	0.000	0.000	0.000	120.000	120.000	120.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9952.000	0.023	10048.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**** WINTERWOOD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

X1	3.516	39.000	9952.000	10048.000	84.000	84.000	84.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1716.700	1713.400	0.000
BT	2.000	9952.000	1718.000	1716.000	10048.000	1718.000	1716.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000
GR	1716.700	9914.000	1718.000	9952.000	1712.200	9952.100	1712.200	9986.900	1716.000	9987.000
GR	1716.000	9992.400	1712.200	9992.500	1712.200	10007.300	1716.000	10007.400	1716.000	10012.900
GR	1712.200	10013.000	1712.200	10047.900	1716.000	10048.000	1713.400	10076.000	1718.900	10168.000
GR	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000	1720.000	10955.000	1720.000	11970.000
GR	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000	1732.000	15535.000	0.000	0.000

NH	6.000	0.045	9552.000	0.028	9952.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.510	31.000	9942.000	10056.000	44.000	44.000	44.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000
GR	1716.700	9914.000	1716.500	9942.000	1709.800	10000.000	1710.700	10017.000	1711.600	10056.000
GR	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000
GR	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000
GR	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	9645.000	0.028	9897.000	0.023	10222.000	0.110	12895.000	0.045
NH	14765.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.690	33.000	9897.000	10222.000	950.000	850.000	908.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1732.000	3795.000	1728.000	3880.000	1724.000	3970.000	1724.000	4515.000	1720.000	5705.000
GR	1716.000	6660.000	1716.000	6785.000	1720.000	7375.000	1720.000	8060.000	1721.700	8100.000
GR	1720.000	8140.000	1720.000	9320.000	1724.000	9535.000	1728.000	9645.000	1721.100	9681.000
GR	1721.400	9747.000	1720.700	9780.000	1720.100	9861.000	1720.300	9897.000	1715.400	9930.000
GR	1716.800	9971.000	1715.200	9994.000	1715.200	10005.000	1715.400	10025.000	1715.400	10035.000
GR	1719.000	10059.000	1723.800	10222.000	1720.400	10355.000	1724.000	10545.000	1724.000	12895.000
GR	1728.000	13735.000	1728.000	14675.000	1732.000	14765.000	0.000	0.000	0.000	0.000

NH	7.000	0.045	6875.000	0.130	9105.000	0.028	9921.000	0.023	10111.000	0.028
NH	10364.000	0.110	12500.000	0.045	14640.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.860	50.000	9921.000	10111.000	950.000	880.000	908.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1740.000	3430.000	1736.000	3686.000	1732.000	4030.000	1728.000	4505.000	1724.000	5940.000
GR	1724.000	6075.000	1724.000	6875.000	1724.000	6840.000	1727.900	9105.000	1727.900	9177.000

GR	1724.700	9184.000	1724.700	9203.000	1725.900	9230.000	1728.800	9255.000	1728.000	9326.000
GR	1728.000	9410.000	1727.400	9426.000	1725.000	9448.000	1723.800	9544.000	1723.800	9613.000
GR	1724.900	9619.000	1724.900	9624.000	1724.200	9629.000	1723.200	9637.000	1723.200	9652.000
GR	1725.100	9656.000	1725.300	9725.000	1726.000	9762.000	1726.300	9828.000	1726.300	9875.000
GR	1725.000	9921.000	1721.300	9941.000	1720.300	9994.000	1719.200	9997.000	1719.200	10002.000
GR	1720.700	10034.000	1720.700	10038.000	1723.900	10078.000	1727.200	10111.000	1729.300	10137.000
GR	1726.100	10165.000	1725.900	10221.000	1726.200	10283.000	1726.700	10364.000	1724.000	10960.000
GR	1724.000	11923.000	1728.000	12500.000	1728.000	13260.000	1729.800	13910.000	1732.000	14640.000
NH	7.000	0.050	5160.000	0.130	9615.000	0.030	9913.000	0.020	10100.000	0.030
NH	10271.000	0.130	12400.000	0.045	14210.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.040	38.000	9913.000	10100.000	1000.000	900.000	960.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1736.000	3440.000	1732.000	4945.000	1732.000	5160.000	1732.000	8340.000	1728.000	8740.000
GR	1732.000	9435.000	1732.000	9585.000	1729.800	9619.000	1729.900	9650.000	1732.400	9672.000
GR	1732.400	9771.000	1729.900	9794.000	1729.900	9827.000	1729.200	9913.000	1722.000	9949.000
GR	1721.700	9994.000	1721.000	9997.000	1721.000	10003.000	1722.500	10005.000	1722.100	10047.000
GR	1727.400	10079.000	1730.900	10100.000	1731.800	10113.000	1732.000	10136.000	1731.500	10172.000
GR	1730.100	10196.000	1730.500	10232.000	1731.200	10271.000	1731.200	10317.000	1726.600	10333.000
GR	1726.600	10399.000	1731.500	10413.000	1731.500	10442.000	1728.000	10890.000	1728.000	12400.000
GR	1732.000	13450.000	1732.000	13980.000	1736.000	14210.000	0.000	0.000	0.000	0.000

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NH	9.000	0.045	4310.000	0.130	7565.000	0.140	8365.000	0.130	8720.000	0.030
NH	9900.000	0.028	10100.000	0.030	10247.000	0.130	12915.000	0.100	14920.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.230	36.000	9900.000	10247.000	1100.000	950.000	1020.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1740.000	3570.000	1736.000	3850.000	1736.000	4310.000	1736.000	6095.000	1732.000	7375.000
GR	1732.000	7565.000	1736.000	8140.000	1736.000	8365.000	1736.000	8720.000	1733.000	9738.000
GR	1732.400	9900.000	1723.600	9945.000	1723.100	9987.000	1723.000	9996.000	1723.000	10003.000
GR	1723.500	10003.000	1724.800	10040.000	1727.300	10053.000	1729.700	10080.000	1730.800	10095.000
GR	1732.500	10130.000	1733.600	10247.000	1724.500	10350.000	1729.500	10363.000	1730.100	10427.000
GR	1733.800	10440.000	1733.700	10515.000	1731.000	10528.000	1731.200	10616.000	1730.200	10628.000
GR	1731.500	10655.000	1733.900	10661.000	1732.000	10860.000	1732.000	12915.000	1736.000	13980.000
GR	1738.000	14920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.050	9535.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9794.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.800	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10132.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 2.230

```
 3470 ENCROACHMENT STATIONS=     900.0     3092.0  TYPE=     1  TARGET=    2192.000
                SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 2506
      2.23     10.60  1698.80      0.00      0.00  1699.04      0.24      0.00      0.00  1696.00
     24000.     11171.    10283.     2546.     3024.     2243.     1936.        0.        0.  1694.00
       0.00      3.69      4.59      1.32     0.030     0.035     0.100     0.000  1688.20  1689.00
  0.000746         .         0.        0.         0         0         0      0.00  1389.88  3078.87
0
 *SECNO 2.270
                CENTERLINE STATION AT 2219
      2.27     10.38  1698.98      0.00      0.00  1699.28      0.40      0.19      0.05  1695.30
     24000.     10132.    10384.     3784.     2748.     1491.     1714.       30.        7.  1693.50
       0.01      3.69      6.76      2.21     0.030     0.030     0.060     0.000  1688.50  1241.95
  0.001205       220.      203.      150.         2         0         0      0.00  1518.06  2760.01
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 2.284
                CENTERLINE STATION AT 2323
      2.28     12.17  1698.97      0.00      0.00  1699.38      0.41      0.09      0.01  1695.00
     24000.      9521.    11782.     2697.     3029.     1752.     1676.       44.       10.  1695.00
       0.02      3.14      6.73      1.61     0.030     0.030     0.060     0.000  1686.80  1361.06
  0.000750       100.      100.      100.         4         0         0      0.00  1490.95  2852.01
0
 *SECNO 2.285

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

                CENTERLINE STATION AT 2323
      2.29     12.17  1698.97      0.00      0.00  1699.38      0.42      0.00      0.00  1695.00
     24000.     17238.     1886.     4876.     3024.      395.     1670.       44.       10.  1695.00
       0.02      5.70      4.72      2.92     0.030     0.030     0.060     0.000  1686.80  1360.96
  0.002465         1.        1.        1.         0         0         0 -1360.67  1491.05  2852.01
0
1
   5-MAY-88    12:54:14                                                                  PAGE     9

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    G         GLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       ANCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 FLOW DISTRIBUTION FOR SECNO=      2.29          CWSEL=   1698.97

 STA=    1361.     1450.     2000.     2248.     2397.     2655.     2692.     2852.
   PER Q=     1.8      44.8      25.3       7.9      10.5       1.0       8.8
    AREA=   132.1    1907.4     984.1     399.3     894.7     100.6     674.9
     VEL=     3.2       5.6       6.2       4.7       2.8       2.4       3.1

 *SECNO 2.301

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

                **** VEGAS VALLEY DRIVE (NB) ****
                2* DEBRIS LOADING
                CENTERLINE STATION AT 2323
      2.30     12.45  1699.25      0.00      0.00  1699.58      0.33      0.17      0.03  1695.00
     24000.     15937.     3576.     4487.     3290.      660.     1809.       55.       13.  1695.00
       0.02      4.84      5.42      2.48     0.030     0.030     0.060     0.000  1686.80  1352.28
  0.001613        87.       87.       87.         2         0         0 -895.71  1499.73  2852.01
0
 FLOW DISTRIBUTION FOR SECNO=      2.30          CWSEL=   1699.25

 STA=    1352.     1450.     2000.     2250.     2395.     2655.     2692.     2852.
   PER Q=     1.8      41.4      23.2      14.9       9.8       1.0       7.9
    AREA=   159.1    2066.5    1064.3     659.6     576.9     111.3     721.2
     VEL=     2.8       4.8       5.2       5.4       2.4       2.1       2.6
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*SECNO 2.302

CENTERLINE STATION AT 2323

2.30	12.44	1699.24	0.00	0.00	1699.55	0.35	-.00	0.01	1695.00
24000.	9954.	11243.	2803.	3286.	1793.	1807.	55.	13.	1695.00
0.02	3.03	6.27	1.55	0.030	0.030	0.060	0.000	1686.60	1352.40
0.000632	1.	1.	1.	3	0	0	0.00	1499.61	2852.01

*SECNO 2.310

3265 DIVIDED FLOW

CENTERLINE STATION AT 2240

2.31	10.15	1699.15	0.00	0.00	1699.75	0.64	0.05	0.15	1698.00
24000.	6133.	13683.	4179.	1497.	1720.	1762.	62.	15.	1694.20
0.03	4.10	7.96	2.37	0.030	0.030	0.060	0.000	1689.00	1086.77
0.001874	51.	50.	50.	2	0	0	0.00	1433.60	2962.88

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IBC	ICCNT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 2.330

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 2995.3 TYPE= 1 TARGET= 2995.000

CENTERLINE STATION AT 2240

2.33	10.51	1699.51	0.00	0.00	1699.98	0.47	0.17	0.02	1698.00
24000.	4230.	12571.	7199.	1734.	1804.	1953.	75.	19.	1694.20
0.03	2.44	6.97	3.69	0.045	0.030	0.035	0.000	1689.00	1050.74
0.001348	125.	110.	95.	3	0	0	0.00	1477.79	2963.76

*SECNO 2.540

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 2872

2.54	10.87	1700.87	0.00	0.00	1701.93	1.06	1.78	0.18	1695.20
24000.	6140.	17141.	718.	3162.	1766.	275.	211.	64.	1695.20
0.07	1.94	9.71	2.61	0.060	0.030	0.050	0.000	1690.00	988.39
0.001979	120.	1116.	900.	3	0	0	0.00	2027.25	3015.63

*SECNO 2.780
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 3462

2.78	15.34	1706.24	1706.24	0.00	1707.34	1.10	2.20	0.01	1705.20
24000.	10851.	13149.	0.	6813.	1167.	0.	356.	119.	1702.70
0.12	1.80	11.27	0.01	0.060	0.030	0.050	0.000	1690.90	560.20
0.001902	960.	1240.	900.	20	15	0	0.00	2942.80	3503.01

FLOW DISTRIBUTION FOR SECNO= 2.78 CWSEL= 1706.24

STA=	560.	885.	2120.	2260.	2450.	3380.	3417.	3503.
PER Q=	1.2	21.3	2.4	3.3	16.1	0.4	54.8	
AREA=	363.8	2766.4	313.6	425.6	2083.2	60.7	1166.5	
VEL=	1.2	1.8	1.8	1.8	1.8	1.5	11.3	

SECNO	DEPTH	C*SEL	CRIWS	*SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	Q CH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	V CH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1450 NH CARD USED
*SECNO 3.040

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

3.04	13.18	1708.98	0.00	0.00	1709.18	0.20	1.75	0.09	1709.30
24000.	15775.	8225.	0.	6017.	1658.	0.	483.	167.	1709.50
0.19	2.62	4.96	0.00	0.045	0.050	0.045	0.000	1695.80	6186.28
0.001794	600.	1380.	1450.	3	0	0	0.00	3552.11	10135.69

FLOW DISTRIBUTION FOR SECNO= 3.04 C*SEL= 1708.98

STA=	6186.	7208.	7323.	7453.	7573.	9473.	9532.	10138.
PER Q=	29.3	9.7	11.0	4.3	10.8	0.1	34.3	
AREA=	2534.0	573.2	648.0	358.1	1870.3	29.1	1656.0	
VEL=	2.8	4.1	4.1	2.9	1.4	0.9	5.0	

*SECNO 3.256

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.26	4.15	1710.95	0.00	0.00	1711.09	0.14	1.90	0.01	1714.30
24000.	21934.	1066.	1000.	7265.	401.	313.	637.	235.	1714.70
0.27	3.02	2.66	3.20	0.045	0.050	0.045	0.000	1706.80	5674.49
0.002678	800.	1144.	1250.	4	0	0	0.00	3710.11	10684.55

FLOW DISTRIBUTION FOR SECNO= 3.26 C*SEL= 1710.95

STA=	5674.	6620.	6775.	6920.	8135.	9077.	10103.	10575.	10655.	10685.
PER Q=	12.9	6.7	6.3	52.6	12.9	4.4	0.3	3.5	0.4	
AREA=	1396.3	458.0	428.4	3590.0	1391.3	400.9	32.7	236.4	43.6	
VEL=	2.2	3.5	3.5	3.5	2.2	2.7	2.2	3.5	2.2	

*SECNO 3.262

SECNO	DEPTH	C*SEL	CRIWS	*SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	Q CH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	V CH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.26	4.24	1711.04	0.00	0.00	1711.17	0.13	0.08	0.00	1714.30
24000.	21937.	1066.	997.	7547.	415.	324.	642.	238.	1714.70
0.28	2.91	2.57	3.08	0.045	0.050	0.045	0.000	1706.80	5648.13
0.002406	30.	30.	30.	2	0	0	0.00	3765.69	10685.37

CCHV= 0.300 CEHV= 0.500
*SECNO 3.274

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
**** WINTERWOOD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.27	4.05	1712.05	1712.05	0.00	1712.11	0.06	0.08	0.02	1714.00
24000.	22357.	663.	980.	11369.	442.	468.	656.	244.	1714.00
0.29	1.97	1.50	2.10	0.045	0.050	0.045	0.000	1708.00	5338.47
0.000794	58.	63.	68.	20	15	0	0.00	4393.82	10707.82

FLOW DISTRIBUTION FOR SECNO= 3.27 CWSEL= 1712.05

STA=	5338.	6620.	6775.	6920.	8135.	9410.	10100.	10655.	10708.
PER Q=	16.4	8.2	5.8	48.5	16.3	2.8	3.6	0.5	
AREA=	2622.5	627.6	587.1	4919.3	2612.3	441.7	385.4	82.3	
VEL=	1.5	2.4	2.4	2.4	1.5	1.5	2.2	1.5	

*SECNO 3.280

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

3.28	5.29	1712.09	0.00	0.00	1712.14	0.06	0.03	0.00	1714.30
24000.	21983.	1050.	962.	11524.	612.	474.	669.	248.	1714.70
0.29	1.91	1.72	2.03	0.045	0.050	0.045	0.000	1706.80	5337.29
0.000737	43.	43.	53.	3	0	0	0.00	4459.60	10717.78

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.470

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

3.47	5.11	1714.91	1714.91	0.00	1715.56	0.65	1.15	0.18	1716.50
24000.	19223.	4303.	473.	4959.	338.	67.	603.	306.	1711.60
0.33	3.88	12.71	7.06	0.045	0.023	0.028	0.000	1709.60	5510.56
0.007673	620.	976.	1000.	20	10	0	0.00	3428.27	10101.19

FLOW DISTRIBUTION FOR SECNO= 3.47 CWSEL= 1714.91

STA=	5511.	6840.	6970.	8793.	10056.	10076.	10101.

PER Q=	29.9	9.3	41.9	17.9	1.7	0.3
AREA=	1931.5	377.8	2649.2	338.5	48.1	19.0
VEL=	3.7	5.9	3.7	12.7	8.3	3.8

*SECNO 3.490

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.49	6.04	1715.84	0.07	0.00	1716.03	0.19	0.43	0.05	1716.50
24000.	20289.	3218.	493.	8492.	435.	116.	823.	317.	1711.60
0.34	2.39	7.39	4.24	0.045	0.023	0.028	0.000	1709.80	5085.34
0.002056	120.	120.	120.	3	0	0	0.00	4497.40	10116.74

SECNO	DEPTH	CWSEL	CRIWS	∠SELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

3685 20 TRIALS ATTEMPTED ∠SEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

**** WINTER COD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	4.63	1716.83	1716.83	0.00	1716.88	0.05	0.09	0.04	1718.00
24000.	22962.	771.	267.	13019.	322.	144.	844.	326.	1718.00
0.35	1.76	2.39	1.85	0.045	0.023	0.028	0.000	1712.20	4954.07
0.000689	84.	84.	84.	20	22	0	-79.58	4951.44	10451.65

FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1716.83

STA=	4954.	6840.	6970.	9480.	9918.	10048.	10452.
PER Q=	37.5	6.5	51.3	0.4	3.2	1.1	
AREA=	5199.5	627.7	7099.8	92.7	322.1	144.1	
VEL=	1.7	2.5	1.7	1.1	2.4	1.5	

1490 NH CARD USED
*SECNO 3.510

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.51	7.05	1716.85	0.08	0.00	1716.91	0.07	0.03	0.01	1716.50
24000.	21117.	2419.	474.	13114.	549.	200.	858.	321.	1711.60
0.36	1.61	4.39	2.38	0.045	0.023	0.028	0.000	1709.80	4952.79
0.000570	44.	44.	44.	4	0	0	0.00	5063.59	10474.10

CCHV= 0.100 CEHV= 0.300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 3.690

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

3.69	5.01	1720.21	1720.21	0.00	1720.82	0.61	1.22	0.16	1720.30
24000.	17515.	6485.	0.	4338.	641.	0.	1063.	428.	1723.80
0.40	4.04	10.11	0.00	0.045	0.023	0.110	0.000	1715.20	5643.15
0.005289	950.	908.	850.	20	14	0	0.00	3854.18	10100.02

FLOW DISTRIBUTION FOR SECNO= 3.69 CWSEL= 1720.21

STA=	5643.	6660.	6735.	7375.	9880.	10222.
PER Q=	35.8	13.7	22.1	1.4	27.0	
AREA=	2115.3	526.3	1302.7	391.7	641.2	
VEL=	4.1	6.3	4.1	0.8	10.1	

1490 NH CARD USED
*SECNO 3.660

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

3.86	6.65	1725.85	1725.85	0.00	1726.48	0.63	4.46	0.00	1725.00
24000.	13312.	7797.	2902.	6586.	721.	2397.	1220.	533.	1727.20
0.46	2.03	10.82	1.21	0.069	0.023	0.110	0.000	1719.20	5277.37
0.004338	950.	908.	880.	8	15	0	0.00	5891.12	12187.82

FLOW DISTRIBUTION FOR SECNO= 3.86 CWSEL= 1725.85

STA=	5277.	5940.	6075.	6875.	8840.	9544.	9613.	9921.	10111.	11920.	12188.
PER Q=	5.3	3.4	20.2	17.1	3.5	3.3	2.7	32.5	11.2	0.9	
AREA=	611.9	249.4	1477.6	3629.4	296.1	141.2	150.1	720.6	2149.7	247.3	
VEL=	2.1	3.3	3.3	1.1	2.8	5.6	4.3	10.8	1.3	0.8	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 4.040

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

4.04	9.84	1730.84	1730.84	0.00	1731.84	1.00	3.47	0.11	1729.20	
24000.	1471.	13639.	8390.	1346.	1288.	6234.	1422.	641.	1730.90	
0.56	1.09	10.59	1.43	0.093	0.026	0.106	0.000	1721.00	8455.75	
0.003071	1000.	960.	900.	6	9	0	0.00	3964.11	13146.16	

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1730.84

STA=	8456.	9269.	9913.	10100.	10890.	12400.	13146.
PER Q=	3.9	2.3	56.8	4.1	22.7	10.2	
AREA=	1156.4	169.4	1288.4	881.7	4292.2	1061.5	
VEL=	0.3	2.9	10.6	1.1	1.3	2.3	

1490 NH CARD USED
*SECNO 4.230

3265 DIVIDED FLOW

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

4.23	10.91	1733.91	1733.91	0.00	1734.95	1.03	2.80	0.01	1732.40	
24000.	1898.	17255.	4847.	1552.	1799.	5342.	1621.	744.	1733.60	
0.54	1.22	9.59	0.91	0.067	0.030	0.128	0.000	1723.00	6762.42	
0.002538	1100.	1020.	950.	4	8	0	0.00	5006.15	13424.68	

FLOW DISTRIBUTION FOR SECNO= 4.23 CWSEL= 1733.91

STA=	6762.	7840.	9900.	10247.	10616.	12515.	13425.
PER Q=	4.7	3.2	71.9	3.1	15.6	1.5	
AREA=	1213.4	338.5	1799.1	600.2	4254.4	487.8	
VEL=	0.9	2.3	9.6	1.2	0.9	0.7	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 4.420

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

4.42	13.21	1737.41	1737.36	0.00	1738.11	0.70	3.13	0.03	1737.00	
24000.	5916.	14306.	3778.	6075.	1660.	3133.	1844.	887.	1737.60	
0.59	0.97	8.62	1.21	0.114	0.045	0.100	0.000	1724.20	3618.42	
0.004028	992.	992.	992.	7	21	0	0.00	7586.72	12745.16	

FLOW DISTRIBUTION FOR SECNO= 4.42 CWSEL= 1737.41

STA=	3618.	3884.	6450.	8150.	9935.	10132.	11580.	12365.	12745.
PER Q=	3.5	13.8	6.2	1.1	59.6	8.0	6.9	0.8	
AREA=	330.0	3635.4	1863.3	245.9	1659.5	1597.2	1267.4	268.9	
VEL=	2.5	3.9	3.8	1.1	8.6	1.2	1.3	0.7	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982

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  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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T1       CCRFCD/COE OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3       LAS VEGAS WASH - 500-YEAR (D/S REACH)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     G         WSEL      FQ
        0.        3.        0.        0.  0.000000      0.00      0.5       0.  1702.200     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
   15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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  5-MAY-88    12:54:14                                                                    PAGE   19

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      ANL       ANCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCRAR     TOPWID      ENDST

*PROF 2

CCHV=   0.100  CEHV=   0.300
*SECNO 2.230

3265 DIVIDED FLOW

                SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 2506
     2.23      14.10  1702.20      0.00  1702.20   1702.78      0.58      0.00      0.00  1696.00
    84000.     39168.    24230.    20601.     5961.     3208.    13353.        0.        0.  1694.00
     0.00       6.57      7.55      1.54     0.030     0.035     0.100     0.000   1688.20  1519.75
 0.001256          0.        0.        0.         0         0         0      0.00   5180.63  6701.98

*SECNO 2.270

3265 DIVIDED FLOW

                CENTERLINE STATION AT 2219
     2.27      14.10  1702.60      0.00      0.00  1703.01      0.41      0.21      0.02  1695.30
    84000.     35510.    17256.    31234.     6749.     2198.    14081.      92.       20.  1693.50
     0.01       5.26      7.85      2.22     0.030     0.030     0.060     0.000   1688.50   951.71
 0.000968       220.      203.      150.         2         0         0      0.00   5421.54  6400.12

CCHV=   0.300  CEHV=   0.500
*SECNO 2.284

3265 DIVIDED FLOW

                CENTERLINE STATION AT 2323
     2.28      15.86  1702.66      0.00      0.00  1703.13      0.46      0.09      0.03  1695.00
    84000.     35879.    15656.    28455.     7048.     2287.    13921.     145.       33.  1695.00
     0.02       5.09      3.60      2.04     0.030     0.030     0.060     0.000   1686.80  1020.43
 0.000859          1.      100.      100.         3         0         0      0.00   5427.23  6475.65

*SECNO 2.285

3265 DIVIDED FLOW

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  5-MAY-88    12:54:14                                                                    PAGE   20
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

CENTERLINE STATION AT 2323

2.29	15.99	1702.79	0.00	0.00	1703.16	0.37	0.00	0.03	1695.00
84000.	43387.	5716.	34897.	7196.	969.	14449.	146.	33.	1695.00
0.02	6.03	5.90	2.42	0.030	0.030	0.060	0.000	1686.80	1013.47
0.001180	1.	1.	1.	2	0	0	-1380.67	5507.13	6545.81

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1702.79

STA=	1013.	1450.	2000.	2248.	2397.	2655.	2852.	3685.	5070.	6546.
PER Q=	5.7	30.5	15.4	6.8	7.2	6.1	17.9	7.8	2.6	
AREA=	1253.9	4010.1	1932.2	969.0	1881.1	1528.6	5094.3	3885.7	2059.5	
VEL=	3.8	6.4	6.7	5.9	3.2	3.3	2.9	1.7	1.1	

*SECNO 2.301

3265 DIVIDED FLOW

337 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

**** VEGAS VALLEY DRIVE (NB) ****
2' DEBRIS LOADING
CENTERLINE STATION AT 2323

2.30	16.11	1702.91	0.00	0.00	1703.26	0.35	0.10	0.01	1695.00
84000.	42171.	7673.	34226.	7362.	1190.	14967.	192.	44.	1695.00
0.02	5.72	6.45	2.29	0.030	0.030	0.060	0.000	1686.80	1007.11
0.001040	87.	87.	87.	2	0	0	-895.71	5580.04	6609.84

FLOW DISTRIBUTION FOR SECNO= 2.30 CWSEL= 1702.91

STA=	1007.	1450.	2000.	2250.	2395.	2655.	2852.	3685.	5070.	6610.
PER Q=	5.7	29.5	14.9	9.1	7.0	5.9	17.3	7.5	2.7	
AREA=	1307.2	4076.7	1978.1	1189.5	1527.2	1552.5	5192.2	4053.4	2242.1	
VEL=	3.7	6.1	6.3	6.5	3.0	3.2	2.8	1.6	1.0	

*SECNO 2.302

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

CENTERLINE STATION AT 2323

2.30	16.08	1702.88	0.00	0.00	1703.29	0.42	0.00	0.04	1695.00
84000.	35835.	19040.	29075.	7319.	2319.	14822.	192.	44.	1695.00
0.02	4.90	8.21	1.96	0.030	0.030	0.060	0.000	1686.80	1008.93
0.000769	1.	1.	1.	2	0	0	0.00	5559.09	6591.45

*SECNO 2.310

3265 DIVIDED FLOW

CENTERLINE STATION AT 2240

2.31	13.87	1702.87	0.00	0.00	1703.40	0.54	0.05	0.06	1698.00
84000.	26876.	23288.	33835.	4838.	2608.	13516.	218.	50.	1694.20
0.03	5.56	8.93	2.50	.030	0.030	0.060	0.000	1689.00	849.54
0.001356	50.	50.	50.	3	0	0	0.00	5256.37	6354.26

CCHV= 0.100 CEHV= 0.300
*SECNO 2.330

3265 DIVIDED FLOW

CENTERLINE STATION AT 2240

2.33	14.25	1703.25	0.00	0.00	1703.54	0.29	0.11	0.02	1698.00
84000.	15192.	18593.	50215.	5248.	2708.	15076.	271.	63.	1694.20
0.03	2.89	6.93	3.33	0.045	0.030	0.035	0.000	1689.00	829.36
0.002770	125.	113.	95.	2	0	0	0.00	5474.51	6582.62

*SECNO 2.540

CENTERLINE STATION AT 2872

2.54	14.13	1704.13	0.00	0.00	1704.62	0.49	1.03	0.06	1695.20
84000.	24702.	23403.	35895.	9171.	2385.	13775.	632.	197.	1695.30
0.09	2.69	9.81	2.61	0.060	0.030	0.050	0.000	1690.00	782.45
0.001355	12 .	1116.	900.	2	0	0	.00	6422.06	7204.52

*SECNO 2.780

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TCFLIC	ENDST

1645 INT SEC ADDED BY RAISING SEC 2.78, -0.450FT AND MULTIPLYING BY 1.622

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	15.17	1705.62	1705.62	0.00	1706.64	1.02	1.94	0.16	1704.75
84000.	18256.	26035.	39709.	8958.	1868.	12335.	1096.	281.	1702.25
0.12	2.04	13.93	3.22	0.060	0.030	0.050	0.000	1690.45	949.55
0.002693	475.	620.	450.	20	9	0	0.00	9349.24	10298.79

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1705.62

STA=	950.	3439.	5484.	5544.	5683.	5956.	6494.	6869.	7072.	8225.	9150.	10299.
PER Q=	11.1	10.5	0.2	31.0	3.1	7.7	7.1	3.9	13.7	9.5	2.2	
AREA=	4644.1	4225.4	88.1	1868.4	808.7	1847.1	1524.2	824.8	3537.8	2605.1	1187.0	
VEL=	2.0	2.1	1.7	13.9	3.2	3.5	3.9	3.9	3.3	3.1	1.6	

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.450FT AND MULTIPLYING BY 0.616

CENTERLINE STATION AT 3462

2.78	16.33	1707.23	0.00	0.00	1708.00	0.78	1.34	0.02	1705.20
84000.	24106.	17476.	42417.	8930.	1252.	11162.	1338.	365.	1702.70
0.14	2.70	13.96	3.80	0.060	0.030	0.050	0.000	1690.90	415.80
0.002654	475.	620.	450.	5	0	0	0.00	6332.47	6748.28

FLOW DISTRIBUTION FOR SECNO= 2.78 CWSEL= 1707.23

STA=	416.	2120.	2460.	3380.	3417.	3503.	3671.	4003.	4234.	4359.	5070.	5640.	6748.
PER Q=	14.9	3.5	10.0	0.3	20.8	3.3	7.7	6.6	3.6	14.4	10.4	4.5	
AREA=	4755.4	1067.8	3009.3	97.5	1252.2	694.8	1526.6	1209.5	654.5	3011.7	2271.9	1793.1	
VEL=	2.6	2.8	2.8	2.4	14.0	3.9	4.2	4.6	4.6	4.0	3.8	2.1	

1490 NH CARD USED
*SECNO 3.040

SECNO	DEPTH	C&SEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.04	14.95	1710.75	0.00	0.00	1711.32	0.57	3.29	0.02	1709.30
84000.	65167.	17394.	1439.	12334.	2043.	1055.	1740.	491.	1709.50
0.19	5.28	8.51	1.36	0.245	0.050	0.073	0.000	1695.80	5816.35
0.004348	600.	1380.	1450.	3	0	0	0.03	5275.22	11525.67

FLOW DISTRIBUTION FOR SECNO= 3.04 C&SEL= 1710.75

STA=	5816.	7208.	7323.	7453.	7573.	9473.	9918.	10138.	11526.
PER Q=	38.9	7.2	8.1	4.2	26.5	0.7	20.7	1.7	
AREA=	4659.7	775.8	877.0	569.5	5217.3	234.4	2043.2	1055.0	
VEL=	5.6	7.8	7.8	6.1	4.3	2.7	8.5	1.4	

*SECNO 3.256

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.26	6.85	1713.65	0.00	0.00	1713.92	0.27	2.58	0.03	1714.30
84000.	76643.	3407.	3750.	18206.	942.	1140.	2091.	600.	1714.70
0.25	4.22	3.62	3.29	0.045	0.050	0.045	0.000	1706.80	5288.40
0.002205	800.	1144.	1250.	5	0	0	0.00	5360.59	11128.42

FLOW DISTRIBUTION FOR SECNO= 3.26 C&SEL= 1713.65

STA=	5288.	6620.	6775.	6920.	8135.	9410.	9804.	10103.	10655.	11128.
PER Q=	20.5	5.1	4.8	40.2	20.4	0.4	4.1	3.2	1.2	
AREA=	4716.7	875.9	819.4	6866.1	4655.2	273.5	941.8	636.3	503.9	
VEL=	3.7	4.9	4.9	4.9	3.7	1.3	3.6	4.3	2.0	

*SECNO 3.262

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.26	6.93	1713.73	0.00	0.00	1713.99	0.26	0.06	0.00	1714.30
84000.	76803.	3397.	3800.	18563.	960.	1195.	2105.	604.	1714.70
0.25	4.14	3.54	3.18	0.045	0.050	0.045	0.000	1706.80	5285.92
0.002077	30.	30.	30.	2	0	0	0.00	5428.81	11149.25

SECNO	DEPTH	C&SEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCF&IC	ENDST

CCH&= 0.300 CEHV= 0.500
*SECNO 3.274

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

**** WATER&COD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.27	5.85	1713.85	0.00	0.00	1714.11	0.26	0.12	0.00	1714.00
64000.	78894.	1072.	4035.	19153.	588.	1317.	2133.	612.	1714.00
0.25	4.12	1.82	3.06	0.045	0.050	0.045	0.000	1708.00	5282.04
0.001999	58.	63.	68.	3	0	0	-165.29	5529.96	11181.84

FLOW DISTRIBUTION FOR SECNO= 3.27 C&SEL= 1713.85

STA=	5282.	6620.	6775.	6920.	8135.	9410.	9899.	10100.	10655.	11182.
PER Q=	21.4	5.2	4.8	40.6	21.2	0.6	1.3	3.4	1.4	
AREA=	4987.6	907.5	848.9	7113.4	4514.6	381.3	587.7	711.7	605.6	
VEL=	3.5	4.8	4.8	4.8	3.6	1.4	1.8	4.0	2.0	

*SECNO 3.280

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.28	7.17	1713.97	0.00	0.00	1714.20	0.23	0.08	0.01	1714.30
64000.	76660.	3367.	3964.	19666.	1016.	1375.	2155.	617.	1714.70
0.25	3.90	3.32	2.88	0.045	0.050	0.045	0.000	1706.80	5278.30
0.001735	43.	43.	53.	2	0	0	0.00	5537.93	11213.30

CCH&= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.470

1645 INT SEC ADDED BY RAISING SEC 3.47, -1.500FT AND MULTIPLYING BY 1.402

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	GLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCF&IC	ENDST

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.01	6.33	1714.63	0.00	0.00	1715.48	0.85	1.09	0.19	1715.80
84000.	72019.	10266.	1716.	13780.	656.	190.	2252.	663.	1710.10
0.27	5.23	15.64	9.05	0.045	0.023	0.028	0.000	1708.30	5693.09
0.000606	319.	488.	500.	3	0	0	0.00	6610.24	12873.40

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1714.63

STA=	5693.	8272.	8454.	11974.	12568.	12781.	12873.
PER Q=	33.1	7.1	45.4	0.1	12.2	2.0	

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 AREA=    5477.1     753.6    7511.1      38.4     656.3     189.6
  VEL=       5.1       7.9       5.1       3.1      15.6       9.1

1645 INT SEC ADDED BY RAISING SEC      1.01,   1.500FT AND MULTIPLYING BY    0.713

3265 DIVIDED FLOW

                CENTERLINE STATION AT 10000
     3.47      7.28  1717.38      0.00      0.00  1717.76      0.68      0.26      0.02  1716.50
   84000.    74263.    8060.    1677.    14185.     575.     286.    2401.     708.   1711.60
     0.26      5.24     14.33     5.87     0.045     0.023     0.030     0.000  1709.80  4937.54
 0.005481      310.      488.      500.         2         0         0      0.00  5350.95 10662.35

FLOW DISTRIBUTION FOR SECNO=      3.47          CWSEL=   1717.08

STA=    4938.     6841.     6970.     9480.     9942.    10056.    10662.
 PER Q=    34.7       5.7      47.5       0.6       9.6       2.0
  AREA=  5663.4     659.6    7714.5     147.2     574.6     285.8
   VEL=     5.1       7.2       5.2       3.4      14.0       5.9

*SECNO 3.490

3265 DIVIDED FLOW

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                CENTERLINE STATION AT 10000
     3.49      8.43  1717.83      0.00      0.00  1718.23      0.40      0.44      0.03  1716.50
   84000.    75029.    7098.    1874.    17935.     661.     670.    2449.     723.   1711.60
     0.29      4.18     10.74     2.80     0.045     0.023     0.040     0.003  1709.80  4886.43
 0.002666      120.      120.      120.         3         0         0      0.00  5729.69 10738.07

CCHV=   0.300 CEHV=    0.500
1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

                **** WINTERWOOD GOLF COURSE BRIDGE #2**
                2* DEBRIS LOADING
                SINGLE CROSS SECTION NORMAL BRIDGE
                CENTERLINE STATION AT 10000
     3.51      6.22  1718.22      0.00      0.00  1718.48      0.25      0.20      0.04  1718.00
   84000.    81246.    1191.    1573.    19919.     344.     857.    2487.     734.   1718.00
     0.30      4.08      3.44     1.83     0.045     0.023     0.052     0.000  1712.00  4859.84
 0.002238       84.       84.       84.         3         0         0   -191.93  5811.65 10777.46

FLOW DISTRIBUTION FOR SECNO=      3.51          CWSEL=   1718.22

STA=    4860.     6841.     6970.     9480.     9952.    10048.    10777.
 PER Q=    37.9       5.1      51.5       2.2       1.4       1.9
  AREA=  7898.1     809.2   10603.8     608.1     343.7     857.4
   VEL=     4.0       5.3       4.1       3.0       3.4       1.8

1490 NH CARD USED
*SECNO 3.510

3265 DIVIDED FLOW

                CENTERLINE STATION AT 10000
     3.51      8.49  1718.29      0.00      0.00  1718.69      0.30      0.09      0.02  1716.50
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84000.	75315.	6660.	2026.	20263.	713.	942.	2589.	740.	1711.60
0.30	3.72	9.34	2.15	0.045	0.023	0.046	0.000	1709.80	4855.44
0.001820	44.	44.	44.	4	0	0	0.00	5825.21	10783.98

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

SECNO	DEPTH	C*SEL	CRI*S	*SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTR	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	ICPNIC	ENDST

1645 INT SEC ADDED BY RAISING SEC 3.69, -2.700FT AND MULTIPLYING BY 0.730

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3665 20 TRIALS ATTEMPTED *SEL,C*SEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	7. 9	1719.59	1719.59	0.07	1720.99	1.39	1.68	0.33	1717.60
84000.	70173.	13672.	155.	9493.	831.	120.	2685.	791.	1721.10
0.31	7.39	16.46	1.29	0.045	0.023	0.110	0.000	1712.50	4690.54
0.009771	475.	464.	425.	20	9	0	0.00	3665.85	8653.80

FLOW DISTRIBUTION FOR SECNO= 1.01 C*SEL= 1719.59

STA=	4691.	5885.	5976.	6407.	6907.	7826.	8247.	8484.	8654.
PER Q=	33.1	7.6	19.0	7.7	13.8	2.3	16.3	0.2	
AREA=	3562.9	574.0	1848.3	1146.4	2059.2	302.0	837.7	120.3	
VEL=	7.5	11.1	8.6	5.7	5.8	6.4	16.5	1.3	

1645 INT SEC ADDED BY RAISING SEC 1.01, 2.700FT AND MULTIPLYING BY 1.371

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

3.69	7.73	1722.93	0.00	0.00	1723.40	0.47	2.32	0.09	1720.30
84000.	71237.	12541.	252.	15993.	1320.	294.	2637.	840.	1723.80
0.34	4.45	9.50	0.86	0.045	0.023	0.110	0.000	1715.20	4833.45
0.002951	475.	454.	425.	2	0	0	0.00	5332.31	10488.51

FLOW DISTRIBUTION FOR SECNO= 3.69 C*SEL= 1722.93

STA=	4833.	5705.	6660.	6785.	7375.	8060.	9320.	9897.	10222.	10489.
PER Q=	3.5	23.1	6.7	16.0	8.8	15.7	2.9	14.9	8.3	
AREA=	1276.8	4707.7	866.2	2978.4	2006.8	3623.3	603.8	1319.6	294.0	
VEL=	2.3	5.2	6.5	5.2	3.7	3.6	4.1	9.5	0.9	

SECNO	DEPTH	C*SEL	CRI*S	*SELK	EG	HV	HL	CLOSS	BANK ELEV

6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 3.860

1645 INT SEC ADDED BY RAISING SEC 3.86, -2.667FT AND MULTIPLYING BY 1.292

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	7.83	1724.36	1724.36	0.00	1725.27	0.91	1.32	0.13	1722.33
84000.	53551.	18345.	12103.	15263.	1210.	6013.	2981.	892.	1724.53
0.35	3.51	15.16	2.11	0.066	0.023	0.108	0.000	1716.53	5269.31
0.006524	317.	303.	293.	20	5	0	0.00	9147.81	14970.74

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1724.36

STA=	5269.	6674.	6849.	7883.	10422.	11332.	11421.	11566.	11819.	12065.	14403.	14971.
PER Q=	8.9	3.5	20.8	17.7	4.9	3.2	3.2	1.5	21.8	12.9	1.5	
AREA=	2127.9	528.6	3132.6	7694.4	886.1	288.0	338.5	267.4	1210.1	5152.6	860.1	
VEL=	3.5	5.6	5.6	1.9	4.7	9.4	7.9	4.6	15.2	2.1	1.4	

1645 INT SEC ADDED BY RAISING SEC 1.01, 1.333FT AND MULTIPLYING BY 0.887

3265 DIVIDED FLOW

1.02	8.43	1726.30	0.00	0.00	1726.94	0.64	1.64	0.03	1723.67
84000.	55019.	15990.	12991.	16867.	1203.	6837.	3149.	954.	1725.87
0.37	3.26	13.29	1.90	0.065	0.023	0.105	0.000	1717.87	4816.30
0.004369	317.	303.	293.	2	0	0	0.00	8561.11	13764.01

FLOW DISTRIBUTION FOR SECNO= 1.02 CWSEL= 1726.30

STA=	4816.	6307.	6462.	7379.	9631.	10438.	10517.	10646.	10870.	11088.	12061.	13161.	13764.
PER Q=	10.4	3.4	20.4	17.3	5.3	3.1	3.3	2.2	19.0	3.7	10.0	1.7	
AREA=	2702.1	561.3	3324.3	8165.3	1064.5	302.5	376.7	370.9	1202.7	1755.2	3989.1	1092.2	
VEL=	3.2	5.2	5.2	1.8	4.2	8.6	7.4	5.0	13.3	1.8	2.1	1.3	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1645 INT SEC ADDED BY RAISING SEC 1.02, 1.333FT AND MULTIPLYING BY 0.872

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

3.86	8.49	1727.69	0.00	0.00	1728.48	0.79	1.50	0.04	1725.00
84000.	55158.	15758.	13084.	15066.	1063.	6122.	3317.	1011.	1727.20
0.39	3.66	14.83	2.14	0.065	0.023	0.105	0.000	1719.20	4614.48
0.005358	317.	303.	293.	2	0	0	0.00	7515.43	12455.75

0

FLOW DISTRIBUTION FOR SECNO= 3.86 CWSEL= 1727.69

STA=	4614.	594.	6175.	6875.	8840.	9544.	9613.	9725.	9921.	10111.	10560.	11920.	12456.
PER Q=	16.5	3.4	20.3	17.3	5.3	3.1	3.3	2.3	18.8	3.8	10.0	1.8	
AREA=	2448.3	498.8	2955.9	7260.3	959.4	268.7	336.4	337.2	1062.5	1585.6	3547.0	989.8	
VEL=	3.6	5.8	5.8	2.0	4.7	9.6	8.3	5.7	14.8	2.0	2.4	1.5	

1494 NH CARD USED
*SECNO 4.040

1645 INT SEC ADDED BY RAISING SEC 4.04, -1.350FT AND MULTIPLYING BY 1.015

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	12.22	1731.87	1731.87	0.00	1733.07	1.20	1.14	0.12	1727.85	
84000.	15371.	26626.	42004.	9151.	1758.	14794.	3448.	1059.	1729.55	
0.40	1.63	15.14	2.84	0.094	0.028	0.089	0.000	1719.65	4500.79	
0.004239	250.	240.	225.	23	14	0	0.00	9703.80	14204.59	

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1731.87

STA=	4501.	8411.	9573.	10007.	10197.	10500.	10998.	12530.	13596.	14205.
PER Q=	5.2	7.2	5.9	31.7	4.1	3.4	21.3	19.2	2.0	
AREA=	4490.4	3741.8	918.5	1758.4	976.5	1687.5	7998.5	3431.3	700.1	
VEL=	1.	1.6	5.4	15.1	3.5	1.7	2.2	4.7	2.4	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.450FT AND MULTIPLYING BY 0.995

3301 HV CHANGED MORE THAN HVINS

1.02	13.16	1733.26	0.00	0.00	1733.80	0.53	.66	0.07	1728.30
84000.	20056.	21331.	42613.	14386.	1926.	18470.	3611.	1113.	1730.00
0.41	1.39	11.07	2.31	0.095	0.028	0.085	0.000	1720.10	4141.23
0.001996	250.	240.	225.	4	0	0	0.00	10066.08	14207.30

FLOW DISTRIBUTION FOR SECNO= 1.02 CWSEL= 1733.26

STA=	4141.	8388.	9544.	9889.	9976.	10165.	10384.	10962.	12487.	13547.	14082.	14207.
PER Q=	9.7	7.5	3.7	2.9	25.4	3.2	4.8	19.2	20.0	3.4	0.2	
AREA=	8265.8	4802.7	917.5	399.8	1926.2	665.2	2730.4	9382.9	4404.2	1152.8	134.7	
VEL=	1.0	1.3	3.4	6.1	11.1	4.0	1.5	1.7	3.8	2.5	1.5	

1645 INT SEC ADDED BY RAISING SEC 1.02, 0.450FT AND MULTIPLYING BY 0.995

1.03	13.19	1733.74	0.00	0.00	1734.26	0.52	0.47	0.00	1728.75
84000.	20200.	21131.	42620.	14506.	1923.	18513.	3800.	1169.	1730.45
0.43	1.39	11.01	2.30	0.095	0.028	0.084	0.000	1720.55	4125.54
0.001966	250.	240.	225.	2	0	0	0.00	10031.93	14157.47

FLOW DISTRIBUTION FOR SECNO= 1.03 CWSEL= 1733.74

STA=	4126.	8364.	9514.	9858.	9944.	10132.	10304.	10926.	12443.	13499.	14031.	14157.
PER Q=	9.9	7.6	3.7	2.9	25.2	3.0	5.0	19.1	20.0	3.4	0.3	
AREA=	8364.1	4817.1	924.3	400.7	1923.1	531.1	2874.1	9387.3	4417.4	1164.6	138.1	

VEL=	1.0	1.3	3.4	6.1	11.0	4.8	1.5	1.7	3.8	2.5	1.6

1645 INT SEC ADDED BY RAISING SEC 1.03, 0.450FT AND MULTIPLYING BY 0.995

CENTERLINE STATION AT 10000

4.04	13.20	1734.20	0.00	0.00	1734.72	0.53	0.46	0.00	1729.20
84000.	20226.	21153.	42621.	14471.	1915.	18447.	3990.	1224.	1730.90
0.44	1.40	11.05	2.31	0.095	0.026	0.084	0.000	1721.00	4119.98
0.001976	253.	240.	225.	1	0	0	0.00	9986.11	14106.08

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SECNO	DEPTH	CHSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XAR	WTA	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPHIC	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.14 CWSEL= 1734.20

STA=	4126.	8340.	9485.	9827.	9913.	10100.	10271.	10890.	12400.	13450.	13980.	14106.
PER Q=	9.9	7.6	3.7	2.9	25.2	3.0	5.0	19.1	20.0	3.4	0.3	
AREA=	8348.9	4800.7	921.9	399.3	1914.9	529.6	2863.9	9351.1	4402.4	1162.2	136.2	
VEL=	1.0	1.3	3.4	6.1	11.0	4.8	1.5	1.7	3.8	2.5	1.6	

1490 NH CARD USED
*SECNO 4.230

1645 INT SEC ADDED BY RAISING SEC 4.23, -1.000FT AND MULTIPLYING BY 0.869

1.01	13.34	1735.34	0.00	0.00	1736.26	0.92	1.41	0.12	1731.40
84000.	18849.	28731.	36420.	7474.	2296.	12022.	4319.	1337.	1732.60
0.47	2.52	12.51	3.03	0.065	0.030	0.080	0.000	1722.00	3752.71
0.004299	551.	510.	475.	2	0	0	0.00	8967.19	12759.90

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 1735.34

STA=	3793.	6878.	7543.	8933.	9073.	9375.	9532.	9696.	9908.	11695.	12621.	12760.
PER Q=	4.5	3.5	9.7	4.7	34.2	6.8	6.8	7.9	18.4	3.4	0.0	
AREA=	3273.0	1887.1	1800.8	512.8	2296.1	618.1	664.6	793.3	7755.2	2167.2	23.7	
VEL=	1.2	1.6	4.5	7.7	12.5	9.2	8.6	8.4	2.0	1.3	0.2	

1645 INT SEC ADDED BY RAISING SEC 1.01, 1.000FT AND MULTIPLYING BY 1.150

CENTERLINE STATION AT 10000

4.23	14.15	1737.13	0.00	0.00	1737.56	0.43	1.26	0.05	1732.40
84000.	30956.	26167.	26877.	13390.	2914.	17032.	4640.	1454.	1733.60
0.51	2.31	8.98	1.58	0.050	0.042	0.104	0.000	1723.00	3771.16
0.001608	550.	510.	475.	3	0	0	0.00	10738.23	14509.38

FLOW DISTRIBUTION FOR SECNO= 4.23 CWSEL= 1737.13

STA=	3771.	7375.	7565.	8140.	9738.	9900.	10247.	10628.	12915.	13980.	14509.
PER Q=	6.3	5.1	6.8	13.2	4.9	31.2	3.1	23.6	5.1	0.1	
AREA=	6574.3	974.0	1797.6	3326.9	717.1	2913.6	1842.4	11561.7	3329.6	298.1	
VEL=	0.9	4.4	3.2	3.3	5.7	9.0	1.4	1.7	1.3	0.4	

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SECNO	DEPTH	CHSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XAR	WTA	ELPIN	SSTA

1490 NH CARD USED
*SECNO 4.420

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

4.42	15.41	1739.61	0.00	0.00	1740.17	0.56	2.57	0.04	1737.00
84000.	40029.	22826.	21145.	18508.	2092.	9443.	5361.	1687.	1737.60
0.56	2.16	10.31	2.24	0.103	0.045	0.100	0.000	1724.20	3530.61
0.004841	992.	992.	992.	4	0	0	0.00	9693.48	13335.15

FLOW DISTRIBUTION FOR SECNO= 4.42 C&SEL= 1739.61

STA=	3531.	3880.	6450.	8050.	9684.	9935.	10132.	10750.	11580.	12365.	13335.
PER Q=	5.8	20.7	11.4	8.4	1.4	27.2	3.5	5.5	9.0	3.2	
AREA=	1000.6	9277.3	5375.8	2540.3	314.2	2091.7	1539.1	3162.1	2990.7	1751.1	
VEL=	4.9	1.9	1.8	2.8	3.6	10.9	1.9	2.5	2.5	1.5	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	C&SEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.230	0.00	0.00	0.00	1688.20	24000.00	1698.80	0.00	1699.04	7.46	4.59	7202.66	8786.16
2.230	0.00	0.00	0.00	1688.20	84000.00	1702.20	0.00	1702.78	12.56	7.55	22562.48	23704.23
2.270	203.00	0.00	0.00	1688.50	24000.00	1698.88	0.00	1699.28	12.05	6.76	5953.55	6913.30
2.270	203.00	0.00	0.00	1688.50	84000.00	1702.69	0.00	1703.01	9.68	7.85	23027.30	26993.00
2.284	100.00	0.00	0.00	1686.80	24000.00	1698.97	0.00	1699.38	7.50	6.73	6455.68	8761.56
2.284	100.00	0.00	0.00	1686.80	84000.00	1702.66	0.00	1703.13	8.59	8.60	23256.70	28660.72
2.285	1.00	1695.00	1696.00	1686.80	24000.00	1698.97	0.00	1699.38	24.65	4.72	5093.19	4833.55
2.285	1.00	1695.00	1696.00	1686.80	84000.00	1702.79	0.00	1703.16	11.80	5.90	22614.45	24457.45
2.301	87.00	1693.10	1696.00	1686.80	24000.00	1699.25	0.00	1699.58	16.13	5.42	5758.79	5975.23
2.301	87.00	1693.10	1696.00	1686.80	84000.00	1702.91	0.00	1703.26	10.40	6.45	23518.90	26043.65
2.302	1.00	0.00	0.00	1686.80	24000.00	1699.24	0.00	1699.59	6.32	6.27	6887.18	9549.94
2.302	1.00	0.00	0.00	1686.80	84000.00	1702.88	0.00	1703.29	7.69	8.21	24459.66	30290.94
2.310	50.00	0.00	0.00	1685.00	24000.00	1699.15	0.00	1699.79	18.74	7.96	4979.15	5543.96
2.310	50.00	0.00	0.00	1685.00	84000.00	1702.87	0.00	1703.40	13.56	8.93	20961.22	22810.55
2.330	110.00	0.00	0.00	1685.00	24000.00	1699.51	0.00	1699.98	13.48	6.97	5490.92	6535.96
2.330	110.00	0.00	0.00	1685.00	84000.00	1703.25	0.00	1703.54	7.70	6.89	23023.79	30268.07

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	2.540	1116.00	0.00	0.00	1690.00	24000.00	1700.87	0.00	1701.93	19.79	9.71	5202.22	5394.35
	2.540	1116.00	0.00	0.00	1690.00	84000.00	1704.13	0.00	1704.62	13.55	9.81	25330.62	22820.06
*	2.780	1240.00	0.00	0.00	1690.90	24000.00	1706.24	1706.24	1707.34	19.02	11.27	7179.78	5502.57
*	2.780	1240.00	0.00	0.00	1690.90	84000.00	1707.23	0.00	1708.00	26.54	13.96	21344.34	16306.76
	3.040	1380.00	0.00	0.00	1695.80	24000.00	1708.58	0.00	1709.18	17.94	4.96	7670.68	5666.76
	3.040	1380.00	0.00	0.00	1695.80	84000.00	1710.75	0.00	1711.32	43.48	8.51	15431.84	12739.12

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	3.256	1144.00	0.00	0.00	1706.80	24000.00	1710.95	0.00	1711.09	26.78	2.66	7978.14	4637.35
	3.256	1144.00	0.00	0.00	1706.80	84000.00	1713.65	0.00	1713.92	22.05	3.62	20288.02	17886.92
	3.262	30.00	0.00	0.00	1706.80	24000.00	1711.04	0.00	1711.17	24.06	2.57	8286.25	4892.56
	3.262	30.00	0.00	0.00	1706.80	84000.00	1713.73	0.00	1713.99	20.77	3.54	20716.85	18431.96
*	3.274	63.25	1714.00	1713.00	1708.00	24000.00	1712.05	1712.05	1712.11	7.94	1.50	12278.41	8517.56
	3.274	63.25	1714.00	1713.00	1708.00	84000.00	1713.85	0.00	1714.11	19.99	1.82	21058.35	18786.52
	3.280	43.25	0.00	0.00	1706.80	24000.00	1712.09	0.00	1712.14	7.37	1.72	12609.97	8843.16
	3.280	43.25	0.00	0.00	1706.80	84000.00	1713.97	0.00	1714.20	17.35	3.32	22056.23	20168.93
*	3.470	976.00	0.00	0.00	1709.80	24000.00	1714.91	1714.91	1715.56	76.73	12.71	5364.08	2739.79
*	3.470	976.00	0.00	0.00	1709.80	84000.00	1717.08	0.00	1717.76	54.81	14.03	15045.03	11345.77
	3.490	120.00	0.00	0.00	1709.80	24000.00	1715.84	0.00	1716.03	20.56	7.39	9043.65	5292.97
	3.490	120.00	0.00	0.00	1709.80	84000.00	1717.83	0.00	1718.23	26.66	10.74	19265.20	16269.47
*	3.506	84.00	1718.00	1716.00	1712.20	24000.00	1716.83	1716.83	1716.88	6.89	2.39	13485.33	9140.22
	3.506	84.00	1718.00	1716.00	1712.00	84000.00	1718.22	0.00	1718.48	22.38	3.44	21120.21	17757.05
	3.510	44.00	0.00	0.00	1709.80	24000.00	1716.85	0.00	1716.91	5.70	4.39	13862.33	10049.76
	3.510	44.00	0.00	0.00	1709.80	84000.00	1718.29	0.00	1718.59	18.20	9.34	21917.67	19687.74
*	3.690	908.00	0.00	0.00	1715.20	24000.00	1720.21	1720.21	1720.82	52.89	10.11	4976.63	3300.25
*	3.690	908.00	0.00	0.00	1715.20	84000.00	1722.93	0.00	1723.40	29.51	9.50	17606.33	15462.52
*	3.860	908.00	0.00	0.00	1719.20	24000.00	1725.85	1725.85	1726.48	43.38	10.82	9673.38	3643.79
*	3.860	908.00	0.00	0.00	1719.20	84000.00	1727.69	0.00	1728.48	53.58	14.83	22250.44	11475.95
*	4.040	960.00	0.00	0.00	1721.00	24000.00	1730.84	1730.84	1731.84	30.71	10.59	8868.65	4331.16
•	4.040	960.00	0.00	0.00	1721.00	84000.00	1734.20	0.00	1734.72	19.76	11.05	34832.93	18896.16
*	4.230	1020.00	0.00	0.00	1723.00	24000.00	1733.91	1733.91	1734.95	25.38	9.59	8693.41	4764.25
•	4.230	1020.00	0.00	0.00	1723.00	84000.00	1737.13	0.00	1737.56	16.08	8.98	33335.81	20944.59
	4.420	992.00	0.00	0.00	1724.20	24000.00	1737.41	1737.36	1738.11	40.28	8.62	10867.50	3781.45
	4.420	992.00	0.00	0.00	1724.20	84000.00	1739.61	0.00	1740.17	48.41	10.91	30042.93	12073.52

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.230	24000.00	1698.80	0.00	0.00	0.00	1385.82	0.00
2.230	84000.00	1702.20	3.40	0.00	0.00	5180.63	0.00

2.278	24000.00	1658.88	0.00	0.08	0.00	1516.06	200.00
2.278	84000.00	1702.60	3.72	0.40	0.00	5421.54	200.00
2.284	24000.00	1698.97	0.00	0.09	0.00	1490.95	100.00
2.284	84000.00	1702.66	3.70	0.06	0.00	5427.23	100.00
2.285	24000.00	1698.97	0.00	0.00	0.00	1491.05	1.00
2.285	84000.00	1702.79	3.82	0.13	0.00	5507.13	1.00
2.301	24000.00	1699.25	0.00	0.29	0.00	1495.73	87.00
2.301	84000.00	1702.91	3.66	0.12	0.00	5580.04	87.00
2.302	24000.00	1699.24	0.00	-0.01	0.00	1499.61	1.00
2.302	84000.00	1702.88	3.63	-0.03	0.00	5559.09	1.00
2.310	24000.00	1699.15	0.00	-0.10	0.00	1433.60	50.00
2.310	84000.00	1702.87	3.72	-0.01	0.00	5256.37	50.00
2.330	24000.00	1699.51	0.00	0.36	0.00	1477.79	110.00
2.330	84000.00	1703.25	3.74	0.38	0.00	5474.51	110.00
2.540	24000.00	1700.87	0.00	1.37	0.00	2027.25	1116.00
2.540	84000.00	1704.13	3.26	0.88	0.00	6422.06	1116.00
* 2.780	24000.00	1706.24	0.00	5.37	0.00	2942.80	1240.00
* 2.780	84000.00	1707.23	0.99	1.61	0.00	6332.47	1240.00
3.040	24000.00	1708.98	0.00	2.74	0.00	3552.11	1380.00
3.040	84000.00	1710.75	1.76	3.52	0.00	5275.22	1380.00
3.256	24000.00	1710.95	0.00	1.97	0.00	3710.11	1144.00
3.256	84000.00	1713.65	2.70	2.91	0.00	5360.59	1144.00
3.262	24000.00	1711.04	0.00	0.09	0.00	3765.69	30.00
3.262	84000.00	1713.73	2.69	0.08	0.00	5428.81	30.00
* 3.274	24000.00	1712.15	0.00	1.01	0.00	4393.82	63.25
3.274	84000.00	1713.85	1.81	0.12	0.00	5529.96	63.25
3.280	24000.00	1712.09	0.00	0.04	0.00	4456.60	43.25
3.280	84000.00	1713.97	1.88	0.12	0.00	5537.93	43.25
* 3.470	24000.00	1714.31	0.00	2.82	0.00	3428.27	976.00
* 3.470	84000.00	1717.08	2.17	2.45	0.00	5350.95	976.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3.490	24000.00	1715.84	0.00	0.93	0.00	4497.40	120.00
3.490	84000.00	1717.83	1.99	0.76	0.00	5729.69	120.00
• 3.506	24000.00	1716.83	0.00	0.99	0.00	4991.44	84.00
3.506	84000.00	1718.22	1.40	0.39	0.00	5811.65	84.00
3.510	24000.00	1716.85	0.00	0.02	0.00	5063.59	44.00
3.510	84000.00	1718.29	1.44	0.06	0.00	5829.21	44.00
* 3.690	24000.00	1720.21	0.00	3.36	0.00	3854.18	908.00
* 3.690	84000.00	1722.93	2.72	3.33	0.00	5332.31	908.00
* 3.860	24000.00	1725.85	0.00	5.64	0.00	5891.12	908.00
* 3.860	84000.00	1727.69	1.85	1.39	0.00	7515.43	908.00
• 4.040	24000.00	1730.84	0.00	5.00	0.00	3964.11	960.00
* 4.040	84000.00	1734.20	3.36	0.46	0.00	9986.11	960.00

*	4.230	24000.00	1733.91	0.00	3.07	0.00	5006.15	1020.00
*	4.230	84000.00	1737.13	3.21	1.79	0.00	10738.23	1020.00
	4.420	24000.00	1737.41	2.00	3.50	0.00	7586.72	992.00
	4.420	84000.00	1739.61	2.20	2.48	0.00	9693.48	992.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	2.780	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	2.780	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	2.780	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	2.780	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	3.274	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.274	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.274	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.470	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.470	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.470	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.470	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	3.506	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.506	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.506	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.690	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.690	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.690	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.690	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	3.860	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.860	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.860	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	4.040	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	4.040	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	4.040	PROFILE= 2	INTERPOLATED XSECTIONS USED
CAUTION	SECNO=	4.230	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	4.230	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	4.230	PROFILE= 2	INTERPOLATED XSECTIONS USED


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

151

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*****************************************************
*  WATER SURFACE PROFILES                           *
*  VERSION OF NOVEMBER 1976                         *
*  UPDATED AUGUST 1983                              *
*                                                   *
*  RUN DATE  28-APR-88 TIME   13:43:35              *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX                 XXXXX
X     X  X        X     X               X     X
X     X  X        X                     X     X
XXXXXXX  XXXX     X           XXXXX     XXXXX
X     X  X        X                     X
X     X  X        X     X               X
X     X  XXXXXXX   XXXXX                 XXXXXXX
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1
28-APR-88 13:43:35


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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*****************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - NONDIMAGING FLOWS (D/S REACH)

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        0.        0.  0.000000      0.00      0.5       0.  1695.700     0.000
J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3   VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.030     0.100     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       3.000  2500.000  2700.000  3000.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 250+
X1       2.230    38.000  2456.000  2740.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    1716.000   900.000  1712.000  1110.000  1708.000  1250.000  1704.000  1450.000  1700.000  1605.000
GR    1696.000  1885.000  1692.000  1910.000  1692.000  1935.000  1693.700  2000.000  1694.400  2187.000
GR    1694.500  2353.000  1694.200  2420.000  1692.900  2429.000  1696.000  2456.000  1692.600  2482.000
GR    1692.600  2494.000  1688.200  2506.000  1689.300  2552.000  1689.800  2560.000  1689.700  2606.000
GR    1689.700  2628.000  1690.300  2646.000  1692.100  2660.000  1691.200  2689.000  1691.500  2701.000
GR    1694.000  2740.000  1692.300  3010.000  1690.200  3022.000  1692.700  3056.000  1702.300  3092.000
GR    1700.000  3120.000  1696.000  3130.000  1696.000  3980.000  1700.000  3985.000  1701.700  4020.000
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GR	1700.000	4360.000	1730.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
NC	0.030	0.060	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 2219								
X1	2.276	38.000	2155.000	2345.000	220.000	150.000	203.000	0.000	0.000	0.000
GR	1716.000	1.000	1712.000	35.000	1708.000	225.000	1704.000	880.000	1700.000	1085.000
GR	1700.000	1200.000	1696.000	1350.000	1696.000	1500.000	1695.500	2000.000	1695.500	2032.000
GR	1694.500	2093.000	1693.900	2121.000	1696.300	2142.000	1695.300	2155.000	1693.400	2165.000
GR	1689.700	2175.000	1689.700	2210.000	1688.500	2219.000	1689.500	2252.000	1690.100	2277.000
GR	1693.100	2297.000	1693.100	2337.000	1693.500	2345.000	1694.100	2385.000	1694.700	2405.000
GR	1694.800	2550.000	1696.500	2600.000	1693.000	2760.000	1704.000	2930.000	1700.000	2945.000
GR	1696.000	2955.000	1696.000	3670.000	1700.000	3680.000	1700.000	5025.000	1704.000	7140.000
GR	1708.000	7380.000	1708.000	7590.000	1710.000	9105.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 2323								
X1	2.284	25.000	2250.000	2395.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000
		CENTERLINE STATION AT 2323								
X1	2.285	63.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2248.000	1695.000	1695.000	2249.900	1696.300	1686.800
BT	2396.100	1696.300	1686.800	2397.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2248.000	1692.300	2249.800
GR	1686.800	2249.900	1686.800	2263.800	1692.300	2263.500	1692.300	2264.500	1686.800	2264.600
GR	1686.800	2278.500	1692.300	2278.600	1692.300	2279.200	1686.800	2279.300	1686.800	2293.200
GR	1692.300	2293.300	1692.300	2293.900	1686.800	2294.000	1686.800	2307.900	1692.300	2308.800
GR	1692.300	2308.600	1686.800	2308.700	1686.800	2322.600	1692.300	2322.700	1692.300	2323.300
GR	1686.800	2323.400	1686.800	2337.300	1692.300	2337.400	1692.300	2338.000	1686.800	2338.100
GR	1686.800	2352.000	1692.300	2352.100	1692.300	2352.700	1686.800	2352.800	1686.800	2366.700
GR	1692.300	2366.800	1692.300	2367.400	1686.800	2367.500	1686.800	2381.400	1692.300	2381.500
GR	1692.300	2382.100	1686.800	2382.200	1686.800	2396.100	1692.300	2396.200	1695.000	2397.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000
		**** VEGAS VALLEY DRIVE (NB) ****								
		2" DEBRIS LOADING								
		CENTERLINE STATION AT 2323								
X1	2.301	63.000	2250.000	2395.000	87.000	87.000	87.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2003.000	1695.000	1695.000	2250.000	1695.000	1695.000	2251.900	1696.300	1686.800
BT	2394.100	1693.100	1686.800	2395.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1692.300	2251.800
GR	1686.800	2251.900	1686.800	2261.800	1692.300	2261.900	1692.300	2266.500	1686.800	2266.600
GR	1686.800	2276.500	1692.300	2276.600	1692.300	2281.200	1686.800	2281.300	1686.800	2291.200
GR	1692.300	2291.300	1692.300	2295.900	1686.800	2296.000	1686.800	2305.900	1692.300	2306.000
GR	1692.300	2310.600	1686.800	2310.700	1686.800	2320.600	1692.300	2320.700	1692.300	2325.300
GR	1686.800	2325.400	1686.800	2335.300	1692.300	2335.400	1692.300	2340.000	1686.800	2340.100
GR	1686.800	2350.000	1692.300	2350.100	1692.300	2354.700	1686.800	2354.800	1686.800	2364.700
GR	1692.300	2364.800	1692.300	2365.400	1686.800	2369.500	1686.800	2379.400	1692.300	2379.500
GR	1692.300	2384.100	1686.800	2384.200	1686.800	2394.100	1692.300	2394.200	1695.000	2395.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000

GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2323

X1	2.302	25.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1695.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000

CENTERLINE STATION AT 2240

X1	2.318	44.000	2181.000	2420.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1930.000	1704.000	2995.000	1704.000	0.000	0.000	0.000
GR	1716.000	250.000	1712.000	270.000	1708.000	430.000	1704.000	790.000	1700.000	1000.000
GR	1696.000	1410.000	1696.000	1505.000	1700.000	1515.000	1700.000	1620.000	1704.000	1670.000
GR	1704.000	1930.000	1700.000	1940.000	1696.700	2000.000	1696.700	2032.000	1694.900	2102.000
GR	1694.900	2164.000	1696.600	2172.000	1698.000	2181.000	1694.200	2198.000	1690.100	2208.000
GR	1690.100	2223.000	1689.000	2229.000	1695.000	2251.000	1690.900	2279.000	1693.700	2300.000
GR	1691.100	2364.000	1693.100	2388.000	1694.200	2420.000	1695.400	2443.000	1695.400	2564.000
GR	1696.500	2600.000	1696.300	2760.000	1696.000	2955.000	1700.000	2965.000	1704.000	2995.000
GR	1700.000	3175.000	1696.300	3187.000	1696.000	3585.000	1700.000	3595.000	1700.000	4990.000
GR	1704.000	6950.000	1708.000	7350.000	1708.000	7580.000	1710.000	9120.000	0.000	0.000
NC	0.045	0.035	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2240

X1	2.330	0.000	0.000	0.000	125.000	95.000	110.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1930.000	1704.000	2995.000	1704.000	0.000	0.000	0.000
NC	0.060	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2372

X1	2.540	36.000	2727.000	2917.000	1200.000	900.000	1116.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3045.000	1702.400	0.000	0.000	0.000
GR	1712.000	705.000	1708.000	706.000	1704.000	785.000	1700.000	1045.000	1700.000	1815.000
GR	1700.000	1815.000	1698.000	2100.000	1697.800	2578.000	1697.700	2690.000	1698.200	2703.000
GR	1695.200	2710.000	1695.200	2727.000	1691.000	2744.000	1691.800	2793.000	1691.400	2843.000
GR	1698.000	2872.000	1691.000	2896.000	1695.300	2917.000	1701.400	3025.000	1702.400	3045.000
GR	1701.800	3121.000	1701.800	3181.000	1700.600	3239.000	1700.600	3326.000	1699.100	3365.000
GR	1697.700	3430.000	1696.900	3499.000	1696.800	3561.000	1696.800	3577.000	1701.000	3670.000
GR	1700.000	3720.000	1700.000	5070.000	1704.000	7000.000	1708.000	7450.000	1708.000	7685.000
GR	1710.000	8450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 3462

X1	2.780	34.000	3417.000	3503.000	950.000	900.000	1240.000	0.000	0.000	0.000
X3	0.000	1.000	0.000	3417.000	1705.200	3671.000	1703.500	0.000	0.000	0.000
GR	1712.000	0.000	1708.000	305.000	1704.000	885.000	1704.000	2120.000	1704.000	2260.000
GR	1704.000	2450.000	1704.000	3380.000	1705.200	3417.000	1705.200	3417.000	1705.200	3417.000
GR	1705.200	3417.000	1693.600	3427.000	1691.900	3431.000	1691.300	3434.000	1691.300	3449.000
GR	1690.900	3451.000	1690.900	3472.000	1691.600	3496.000	1702.700	3503.000	1703.500	3671.000
GR	1702.600	3704.000	1701.900	3718.000	1701.900	3726.000	1701.900	3742.000	1703.000	3748.000
GR	1702.800	3778.000	1702.500	4003.000	1701.500	4234.000	1702.500	4359.000	1703.500	4460.000
GR	1702.500	5970.000	1704.000	5640.000	1708.000	7010.000	1710.000	7630.000	0.000	0.000

NH	5.000	0.045	9918.000	0.050	10138.000	0.045	10362.000	0.130	12103.000	0.040
NH	13578.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.040	36.000	9918.000	10138.000	600.000	1450.000	1380.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9798.000	1714.100	0.000	0.000	0.000	0.000	0.000
GR	1716.000	5153.000	1712.000	5553.000	1708.000	6393.000	1704.000	7208.000	1704.000	7323.000
GR	1704.000	7453.000	1708.000	7573.000	1708.000	9473.000	1712.000	9713.000	1714.100	9798.000

GR	1713.500	9886.000	1709.300	9918.000	1708.300	9954.000	1704.600	9969.000	1697.000	9587.000
GR	1697.000	9993.000	1697.000	10012.000	1699.100	10033.000	1695.800	10057.000	1696.000	10067.000
GR	1698.500	10069.000	1698.000	10076.000	1696.900	10079.000	1696.800	10093.000	1702.800	10108.000
GR	1709.500	10138.000	1709.700	10173.000	1708.400	10188.000	1708.400	10253.000	1708.400	10268.000
GR	1712.000	10309.000	1711.900	10335.000	1711.100	10362.000	1709.300	10860.000	1712.000	12103.000
GR	1716.000	13573.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.045	0.345	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.256	32.000	9863.000	10103.000	800.000	1250.000	1144.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9824.000	1714.900	10273.000	1716.800	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1708.000	9983.000	1708.800	9995.000	1708.800	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.262	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9824.000	1714.900	10273.000	1716.800	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9824.000	10273.000	0.000	0.000
		**** WINTERWOOD GOLF COURSE BRIDGE #1**								
		2* DEBRIS LOADING								
		SINGLE CROSS SECTION NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	3.274	53.000	9900.000	10100.000	58.250	68.250	63.250	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	2.000	99[illegible].000	1714.000	1713.000	10100.000	1714.000	1713.000	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1712.000	9880.000
GR	1714.000	9900.000	1713.000	9923.100	1713.000	9923.200	1713.000	9928.100	1710.000	9928.200
GR	1709.000	9949.000	1713.000	9949.100	1713.000	9954.000	1709.000	9954.100	1708.000	9975.000
GR	1713.000	9975.100	1713.000	9980.000	1708.000	9980.100	1708.000	10020.000	1713.000	10020.100
GR	1713.000	10025.000	1708.000	10025.100	1709.000	10046.000	1713.000	10046.100	1713.000	10051.000
GR	1709.000	10051.100	1713.000	10072.000	1713.000	10072.100	1713.000	10077.000	1710.000	10077.100
GR	1714.000	10100.000	1712.000	10120.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000
GR	1712.000	10545.000	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000
GR	1720.000	13155.000	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	7.100	7.100	0.000	0.000	9824.000	10273.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.260	32.000	9863.000	10103.000	43.250	53.250	43.250	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1708.000	9983.000	1708.000	9995.000	1708.000	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9542.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9552.000	10218.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.470	31.000	9942.000	10218.000	620.000	1000.000	976.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000

GR	1716.700	9914.000	1715.500	9942.000	1705.800	10000.000	1710.700	10017.000	1711.600	10056.000
GR	1713.400	10076.000	1713.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000
GR	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000
GR	1732.000	15535.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9552.000	10218.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.490	0.000	0.000	0.000	120.000	120.000	120.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9552.000	0.023	10048.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9610.000	10218.000	0.000	0.000

**** WINTERWOOD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

X1	3.500	40.000	9952.000	10218.000	84.000	84.000	84.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BI	2.000	9952.000	1718.000	1716.000	10048.000	1718.000	1716.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1720.000	9610.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000
GR	1715.100	9886.000	1716.700	9914.000	1716.500	9942.000	1712.000	10000.000	1712.000	10017.000
GR	1716.000	9987.000	1716.000	9992.400	1712.200	9992.500	1712.200	10007.300	1716.000	10007.400
GR	1716.000	10012.900	1712.200	10013.000	1712.200	10047.500	1718.000	10048.000	1713.400	10076.000
GR	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000	1720.000	10955.000
GR	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000	1732.000	15535.000

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NH	6.000	0.045	9552.000	0.028	9542.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	0.000	0.000	9610.000	10218.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.510	32.000	9942.000	10218.000	44.000	44.000	44.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1720.000	9610.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000
GR	1715.100	9886.000	1716.700	9914.000	1716.500	9942.000	1712.000	10000.000	1712.000	10017.000
GR	1712.000	10056.000	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000
GR	1717.000	10655.000	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000
GR	1728.000	14405.000	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	9545.000	0.028	9897.000	0.023	10222.000	0.110	12895.000	0.045
NH	14765.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.690	33.000	9897.000	10222.000	950.000	850.000	908.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9681.000	1731.100	10222.000	1723.800	0.000	0.000	0.000
GR	1732.000	3795.000	1728.000	3880.000	1724.000	3970.000	1724.000	4515.000	1720.000	5705.000
GR	1716.000	6660.000	1716.000	6785.000	1720.000	7375.000	1720.000	8060.000	1721.700	8100.000
GR	1720.000	8140.000	1720.000	9320.000	1724.000	9535.000	1728.600	9645.000	1731.100	9681.000
GR	1721.400	9747.000	1720.700	9780.000	1720.100	9861.000	1720.300	9897.000	1715.400	9930.000
GR	1716.800	9971.000	1715.200	9994.000	1715.200	10005.000	1715.400	10025.000	1715.400	10035.000
GR	1719.000	10059.000	1723.800	10222.000	1720.400	10355.000	1724.000	10545.000	1724.000	12895.000
GR	1728.000	13735.000	1728.000	14775.000	1732.000	14765.000	0.000	0.000	0.000	0.000

NH	7.000	0.045	6875.000	0.130	9105.000	0.028	9921.000	0.023	10111.000	0.026
NH	10364.000	0.110	12500.000	0.045	14640.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.860	52.000	9921.000	10111.000	950.000	880.000	908.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9828.000	1726.300	10137.000	1729.300	0.000	0.000	0.000
GR	1740.000	3430.000	1736.000	3685.000	1732.000	4030.000	1728.000	4505.000	1724.000	5940.000
GR	1724.000	6075.000	1724.000	6875.000	1724.000	8840.000	1727.900	9105.000	1727.900	9177.000
GR	1724.700	9184.000	1724.700	9203.000	1725.900	9230.000	1728.800	9255.000	1728.000	9326.000

GR	1728.000	9410.000	1727.400	9426.000	1725.000	9446.000	1723.800	9544.000	1723.800	9613.000
GR	1724.900	9619.000	1724.900	9624.000	1724.200	9629.000	1723.200	9637.000	1723.200	9653.000
GR	1725.100	9656.000	1725.300	9725.000	1726.000	9762.000	1726.300	9828.000	1726.300	9875.000
GR	1725.000	9921.000	1721.300	9941.000	1720.300	9994.000	1719.200	9997.000	1719.200	10002.000
GR	1720.700	10004.000	1720.700	10038.000	1723.900	10078.000	1727.200	10111.000	1729.300	10137.000
GR	1728.100	10165.000	1726.900	10221.000	1726.200	10283.000	1726.700	10364.000	1724.000	10960.000
GR	1724.000	11920.000	1728.000	12500.000	1728.000	13260.000	1729.800	13910.000	1732.000	14640.000
NH	7.000	0.050	5160.000	0.130	9615.000	0.030	9913.000	0.028	10100.000	0.030
NH	10271.000	0.130	12400.000	0.045	14210.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.040	38.000	9913.000	10100.000	1000.000	900.000	900.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	9672.000	1732.400	10317.000	1731.200	0.000	0.000	0.000
GR	1736.000	3440.000	1732.000	4945.000	1732.000	5160.000	1732.000	8340.000	1728.000	8740.000
GR	1732.000	9485.000	1732.000	9585.000	1729.800	9619.000	1729.900	9650.000	1732.400	9672.000
GR	1732.400	9771.000	1729.900	9794.000	1729.900	9827.000	1729.200	9913.000	1722.000	9549.000
GR	1721.700	9994.000	1721.000	9997.000	1721.000	10003.000	1722.500	10005.000	1722.100	10047.000

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GR	1727.400	10079.000	1730.900	10100.000	1731.800	10113.000	1732.000	10136.000	1731.500	10172.000
GR	1730.100	10196.000	1730.500	10232.000	1731.200	10271.000	1731.200	10317.000	1726.600	10333.000
GR	1726.600	10399.000	1731.500	10413.000	1731.500	10442.000	1728.000	10890.000	1728.000	12400.000
GR	1732.000	13450.000	1732.000	13580.000	1736.000	14210.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	4310.000	0.134	7565.000	0.040	8365.000	0.130	8720.000	0.030
NH	9900.000	0.028	10100.000	0.030	10247.000	0.130	12515.000	0.100	14920.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.230	36.000	9900.000	10247.000	1100.000	950.000	1020.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	8140.000	1736.000	10350.000	1734.500	0.000	0.000	0.000
GR	1740.000	3570.000	1736.000	3850.000	1736.000	4310.000	1736.000	6095.000	1732.000	7375.000
GR	1732.000	7565.000	1736.000	8140.000	1736.000	8365.000	1736.000	8720.000	1733.000	9738.000
GR	1732.400	9900.000	1723.600	9945.000	1723.100	9987.000	1723.000	9996.000	1723.000	10003.000
GR	1723.500	10033.000	1724.800	10040.000	1727.300	10053.000	1729.700	10080.000	1730.800	10095.000
GR	1732.500	10180.000	1733.600	10247.000	1734.500	10350.000	1729.500	10363.000	1730.100	10427.000
GR	1733.800	10440.000	1733.700	10515.000	1731.000	10528.000	1731.200	10616.000	1730.200	10628.000
GR	1731.500	10655.000	1733.900	10661.000	1732.900	10860.000	1732.000	12915.000	1736.000	13980.000
GR	1738.000	14920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.150	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9731.000	1739.700	10236.000	1738.000	0.000	0.000	0.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9794.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.800	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10095.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 2.230

3265 DIVIDED FLOW

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 2506

2.23	7.50	1695.70	0.00	1695.70	1695.71	0.01	0.00	0.00	1696.00
2500.	702.	1544.	254.	980.	1362.	903.	0.	0.	1694.00
0.00	0.72	1.13	0.28	0.030	0.035	0.100	0.000	1668.20	1886.88
0.000088	0.	1.	0.	0	0	0	0.00	1175.47	3067.25

*SECNO 2.270

3265 DIVIDED FLOW

CENTERLINE STATION AT 2219

2.27	7.18	1695.68	0.00	0.00	1695.76	0.08	0.03	0.02	1695.30
2500.	92.	2166.	243.	120.	884.	468.	10.	5.	1693.50
0.03	0.76	2.46	0.52	0.030	0.030	0.060	0.000	1668.50	1816.16
0.000318	22.	203.	150.	2	0	0	0.00	910.34	2801.48

CCHW= 0.300 CEHV= 0.500
*SECNO 2.284

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999

CENTERLINE STATION AT 2323

2.28	8.94	1695.74	0.00	0.00	1695.75	0.05	0.01	0.01	1695.00
2500.	101.	2327.	72.	330.	1283.	301.	14.	7.	1695.00
0.04	0.31	1.81	0.24	0.030	0.030	0.060	0.000	1666.80	1597.37
0.000083	100.	100.	100.	2	0	0	0.00	1157.57	2896.71

*SECNO 2.285

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999

CENTERLINE STATION AT 2323

2.29	8.85	1695.65	1695.65	0.00	1695.97	0.32	0.00	0.14	1766.00
2500.	3.	0.	2500.	0.	0.	553.	14.	7.	1766.00
0.04	0.00	0.00	4.52	0.030	0.030	0.060	0.000	1666.80	1641.14
0.046751	1.	1.	1.	9	11	0	-1265.54	1068.85	2895.40

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1695.65

STA=	1641.	2000.	2248.	2250.	2397.	2565.	2852.	2895.
PER Q=	11.9	26.1	0.0	0.0	5.6	41.6	14.9	
AREA=	117.3	161.8	0.3	0.1	54.9	160.8	57.6	
VEL=	2.5	4.0	2.2	1.7	2.5	6.5	6.5	

*SECNO 2.301

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
**** VEGAS VALLEY DRIVE (NB) ****
2* DEBRIS LOADING
CENTERLINE STATION AT 2323

2.30	9.52	1696.32	0.00	0.00	1696.37	0.05	0.32	0.08	1695.00
2500.	1371.	552.	577.	781.	233.	558.	16.	10.	1695.00
0.06	1.75	2.36	1.03	0.030	0.030	0.060	0.000	1686.80	1440.46
0.001226	87.	87.	87.	4	0	0	-895.71	1444.07	2506.30

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.30 CWSEL= 1696.32

STA=	1440.	1450.	2000.	2250.	2395.	2655.	2679.	2852.	2906.
PER Q=	0.0	27.3	27.5	22.1	6.5	0.0	12.2	4.4	
AREA=	1.5	450.0	329.5	233.4	212.7	3.7	251.7	90.1	
VEL=	0.5	1.5	2.1	2.4	0.8	0.3	1.2	1.2	

*SECNO 2.302

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.30	9.54	1696.34	0.00	0.00	1696.37	0.03	0.00	0.01	1695.00
2500.	296.	2080.	123.	801.	1371.	570.	16.	10.	1695.00
0.06	0.37	1.52	0.22	0.030	0.030	0.060	0.000	1686.80	1439.72
0.000053	1.	1.	1.	2	0	0	0.00	1448.16	2506.70

6
*SECNO 2.310

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2995.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2243

2.31	7.33	1696.33	0.00	0.00	1696.40	0.07	0.01	0.02	1698.00
2500.	119.	2302.	79.	133.	1052.	243.	19.	11.	1694.20
0.06	0.89	2.19	0.33	0.030	0.030	0.060	0.000	1689.00	2046.43
0.000262	50.	50.	50.	2	0	0	0.00	831.32	2955.82

6
CCHV= 0.100 CDHV= 0.333
*SECNO 2.330

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2995.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2243

1

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	I&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.33	7.36	1696.36	0.00	0.00	1696.43	0.07	0.03	0.00	1698.00
2500.	81.	2276.	143.	137.	1059.	258.	22.	13.	1694.20
0.18	0.59	2.15	1.55	0.046	0.030	0.035	0.000	1689.00	2045.21
0.000251	125.	110.	95.	2	0	0	0.00	843.92	2955.90

0
*SECNO 2.540

3470 ENCROACHMENT STATIONS= 0.0 3045.0 TYPE= 1 TARGET= 3044.999
CENTERLINE STATION AT 2872

2.54	6.64	1696.64	0.00	0.00	1696.75	0.10	0.31	0.01	1695.20
2500.	15.	2479.	6.	27.	962.	16.	53.	26.	1695.30
0.20	0.54	2.53	0.40	0.060	0.030	0.050	0.000	1690.00	2706.63
0.000313	1200.	1116.	900.	2	0	0	0.00	234.14	2940.78

0
*SECNO 2.760

3470 ENCROACHMENT STATIONS= 3417.0 3671.0 TYPE= 1 TARGET= 254.000
ELENCL= 1705.20 ELENCR= 1703.50
CENTERLINE STATION AT 3462

2.78	6.18	1697.08	0.00	0.00	1697.63	0.56	1.75	0.14	1705.20
2500.	0.	2500.	0.	0.	417.	0.	74.	30.	1702.70
0.26	0.00	5.99	0.00	0.060	0.030	0.050	0.000	1690.50	3424.00
0.001634	950.	1240.	900.	2	0	0	0.00	75.45	3499.46

0
1490 NH CARD USED
*SECNO 3.040

3470 ENCROACHMENT STATIONS= 9798.0 13578.0 TYPE= 1 TARGET= -9798.000
ELENCL= 1714.10 ELENCR= 100000.00
CENTERLINE STATION AT 10000

3.04	5.36	1701.15	0.00	0.00	1701.63	0.47	3.99	0.01	1709.30
2500.	0.	2500.	0.	0.	455.	0.	87.	33.	1709.50
0.33	0.00	5.49	0.00	0.060	0.050	0.050	0.000	1695.80	9977.15
0.006424	6[illegible]	1380.	1450.	2	0	0	.00	126.74	10103.89

0
*SECNO 3.256

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
ELENCL= 1714.90 ELENCR= 1716.80

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CENTERLINE STATION AT 10000

3.26	4.28	1711.08	0.00	0.00	1711.62	0.54	9.97	0.02	1714.30
2500.	0.	2500.	0.	0.	423.	0.	99.	37.	1714.70
0.36	0.00	5.91	0.00	0.045	0.050	0.045	0.000	1706.80	9896.72
0.012500	800.	1144.	1250.	4	0	0	0.00	178.39	10075.11

0
*SECNO 3.262

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
ELENCL= 1714.90 ELENCR= 1716.80
CENTERLINE STATION AT 10000

3.26	4.74	1711.54	0.00	0.00	1711.92	0.38	0.28	0.02	1714.30
2500.	0.	2500.	0.	0.	508.	0.	99.	37.	1714.70
0.38	0.00	4.92	0.00	0.045	0.050	0.045	0.000	1706.80	9891.88
0.007256	3[illegible]	30.	30.	3	0	0	0.00	186.79	10078.67

0
CCHV= 0.300 CEHV= 0.500

*SECNO 3.274

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 445.000
**** WINTERWOOD GOLF COURSE BRIDGE #1**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.27	4.75	1712.35	0.00	0.00	1712.55	0.50	.57	0.06	1714.00
2500.	0.	2500.	0.	0.	442.	0.	100.	37.	1714.00
0.38	0.04	5.66	0.04	0.045	0.050	0.045	0.000	1708.00	9879.64
0.011281	58.	63.	68.	3	0	0	0.00	149.67	10120.47

FLOW DISTRIBUTION FOR SECNO= 3.27 CWSEL= 1712.05

STA= 9880. 10130.
PER Q= 100.0
AREA= 441.7
VEL= 5.7

*SECNO 3.280

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 445.000
CENTERLINE STATION AT 10000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3.28	4.66	1712.66	0.00	0.00	1712.87	0.21	0.23	0.09	1714.30
2500.	0.	2500.	0.	0.	678.	0.	100.	38.	1714.70
0.35	0.00	3.69	0.00	0.045	0.050	0.045	0.000	1708.00	9880.14
0.003175	43.	43.	53.	2	0	0	0.00	207.17	10087.31

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.470

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.47	5.11	1714.91	0.00	0.00	1715.50	0.59	2.52	0.11	1716.50
2500.	0.	2500.	0.	0.	407.	0.	113.	41.	100000.00
0.43	0.00	6.14	0.00	0.045	0.028	0.045	0.000	1709.80	9955.71
0.002142	620.	976.	1000.	2	0	0	0.00	145.65	10101.36

*SECNO 3.490

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.49	5.47	1715.27	0.00	0.00	1715.73	0.46	0.22	0.01	1716.50
2500.	0.	2500.	0.	1.	460.	0.	114.	42.	100000.00
0.44	0.41	5.43	0.00	0.028	0.028	0.045	0.000	1709.80	9880.34
0.001548	120.	120.	120.	3	0	0	0.00	163.34	10107.31

CCHV= 0.300 CEHV= 0.500

1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
**** WINTERWOOD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	2.99	1715.19	1715.19	0.00	1716.35	1.16	0.23	0.35	1718.00
2500.	0.	2500.	0.	0.	289.	0.	115.	42.	100000.00
0.44	0.35	8.64	0.00	0.028	0.023	0.045	0.000	1712.20	9883.14
0.006235	84.	84.	84.	3	12	0	0.00	130.07	10105.89

0
FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1715.19

STA=	9883.	9883.	10218.
PER Q=	0.	100.0	
AREA=	0.2	269.4	
VEL=	0.4	8.6	

1490 NH CARD USED
*SECNO 3.510

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
CENTERLINE STATION AT 10000

3.51	4.36	1716.36	1715.05	0.00	1716.70	0.34	0.11	0.24	1716.50
2500.	59.	2441.	0.	40.	513.	0.	115.	42.	100000.00
0.44	1.47	4.76	0.00	0.028	0.028	0.045	0.000	1712.00	9844.48
0.001415	44.	44.	44.	12	8	0	0.00	246.31	10125.52

0
CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
CENTERLINE STATION AT 10000

3.69	2.98	1718.13	1718.15	0.00	1719.22	1.04	2.31	0.21	1720.30
2500.	0.	2500.	0.	0.	305.	0.	124.	46.	1723.80
0.47	0.00	8.19	0.00	.028	0.028	0.045	0.000	1715.20	9911.29
0.005833	960.	908.	850.	6	14	0	0.00	142.24	10053.53

1490 NH CARD USED
*SECNO 3.660

3471 ENCROACHMENT STATIONS= 9823.0 10137.0 TYPE= 1 TARGET= 305.000
ELENCL= 1726.30 ELENCR= 1729.30
CENTERLINE STATION AT 10000

3.86	4.10	1723.30	0.00	0.00	1724.30	1.00	5.07	0.00	1725.00
2500.	0.	2500.	0.	0.	312.	0.	130.	49.	1727.20
0.51	0.00	8.01	0.00	0.028	0.028	0.045	0.000	1719.20	9630.19
0.005355	960.	908.	880.	4	8	0	0.00	140.32	10070.51

1490 NH CARD USED
*SECNO 4.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9672.0 10317.0 TYPE= 1 TARGET= 645.000
ELENCL= 1732.40 ELENCR= 1731.20
CENTERLINE STATION AT 10000

4.04	5.37	1726.37	0.00	0.00	1726.72	0.34	2.35	0.07	1729.20
2500.	0.	2500.	0.	0.	533.	0.	140.	53.	1730.90
0.56	0.00	4.69	0.00	.028	0.028	0.045	0.000	1721.00	9927.16
0.001399	1010.	960.	900.	3	0	0	0.00	145.61	10072.77

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1726.37

STA= 9927. 1010.
PER Q= 100.0
AREA= 533.3
VEL= 4.7

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8140.0 10350.0 TYPE= 1 TARGET= 2210.000
ELENCL= 1736.00 ELENCR= 1734.50
CENTERLINE STATION AT 10000

4.23	4.93	1727.93	0.00	0.00	1728.34	0.41	1.60	0.02	1732.40
2500.	0.	2500.	0.	0.	484.	0.	152.	56.	1733.60
0.62	0.00	5.16	0.00	0.028	0.028	0.045	0.000	1723.00	9522.90
0.001781	1100.	1020.	950.	2	0	0	0.00	137.10	10060.00

1490 NH CARD USED

*SECNO 4.420

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.00
CENTERLINE STATION AT 10000

4.42	5.80	1730.00	0.00	0.00	1730.30	0.29	1.94	0.01	1737.00
2500.	0.	2500.	0.	0.	577.	0.	164.	59.	1737.60
0.68	0.00	4.33	0.00	0.028	0.045	0.045	0.000	1724.20	9947.14
0.002159	992.	992.	992.	3	0	0	0.00	119.19	10066.33

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 51,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - NONDMAGING FLOWS (D/S REACH)

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.000000	0.00	0.5	0.	1695.700	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CONAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 2.230

3265 DIVIDED FLOW

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 2506

2.23	7.50	1695.70	0.00	1695.70	1695.72	0.02	0.00	0.00	1696.00
2700.	758.	1667.	275.	980.	1362.	903.	0.	0.	1694.00
0.00	0.77	1.22	0.30	0.030	0.035	0.100	0.000	1688.20	1686.88
0.000172	.	0.	0.	0	0	0	0.00	1175.47	3067.25

*SECNO 2.270

3265 DIVIDED FLOW

CENTERLINE STATION AT 2219

2.27	7.18	1695.68	0.00	0.00	1695.78	0.10	0.04	0.02	1695.30
2700.	98.	2340.	262.	119.	883.	467.	10.	5.	1693.50
0.02	0.83	2.65	0.56	0.030	0.030	0.060	0.000	1688.50	1618.73
0.000372	220.	203.	150.	2	0	0	0.00	907.49	2801.44

CCHV= 0.300 CEHV= 0.500
*SECNO 2.284

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.28	8.95	1695.75	0.00	0.00	1695.80	0.05	0.02	0.01	1695.80
2700.	114.	2507.	79.	342.	1285.	308.	14.	7.	1695.00
0.04	0.33	1.95	0.26	0.030	0.030	0.060	0.000	1666.80	1587.63
0.000095	100.	100.	100.	3	0	0	0.00	1173.00	2897.00

*SECNO 2.285

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HW	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AREB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.29	8.87	1695.67	1695.67	0.00	1696.02	0.34	0.00	0.14	1766.00
2700.	0.	0.	2700.	0.	0.	574.	14.	7.	1766.00
0.04	0.00	0.00	4.71	0.030	0.030	0.060	0.000	1666.80	1628.92
0.000032	1.	1.	1.	20	11	0	-1268.82	1108.18	2895.77

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1695.67

STA=	1629.	2000.	2248.	2250.	2397.	2571.	2852.	2896.
PER Q=	12.4	26.4	0.0	0.0	5.8	40.7	14.6	
AREA=	125.2	167.3	0.3	0.2	58.7	163.5	58.5	
VEL=	2.7	4.3	2.4	1.8	2.7	6.7	6.7	

*SECNO 2.301

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
**** VEGAS VALLEY DRIVE (NB) ****
2* DEBRIS LOADING
CENTERLINE STATION AT 2323

2.30	9.57	1696.37	0.00	0.00	1696.43	0.05	0.32	0.09	1695.00
2700.	1500.	584.	616.	826.	242.	586.	17.	10.	1695.00
0.05	1.32	2.42	1.05	0.030	0.030	0.060	0.000	1666.80	1438.78
0.001226	87.	87.	87.	4	0	0	-895.71	1453.35	2907.21

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.30 CWSEL= 1696.37

STA=	1439.	1450.	2000.	2250.	2355.	2655.	2683.	2852.	2907.
PER W=	0.3	28.2	27.3	21.6	6.7	0.1	11.8	4.2	
AREA=	2.1	480.7	343.5	241.5	227.2	5.2	260.2	93.1	
VEL=	0.6	1.6	2.1	2.4	0.8	0.3	1.2	1.2	

*SECNO 2.302

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.30	9.60	1696.40	0.00	0.00	1696.43	0.03	0.00	0.01	1695.00
2700.	341.	2220.	139.	845.	1375.	597.	17.	10.	1695.00
0.05	0.40	1.61	0.23	0.030	0.030	0.060	0.000	1686.80	1438.08
0.000059	1.	1.	1.	2	0	0	0.00	1457.24	2907.59

*SECNO 2.310

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2995.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2246

2.31	7.33	1696.38	0.00	0.00	1696.46	0.08	0.01	0.02	1698.00
2700.	134.	2472.	94.	140.	1064.	269.	19.	11.	1694.20
0.06	0.96	2.32	0.35	0.030	0.030	0.060	0.000	1689.00	2044.36
0.000291	51.	50.	50.	2	0	0	0.00	852.79	2955.96

CCHV= 0.100 CEHV= 0.300
*SECNO 2.330

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2995.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2246

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

2.33	7.42	1696.42	0.00	0.00	1696.49	0.07	0.03	0.00	1698.00
2700.	91.	2438.	171.	144.	1072.	286.	23.	13.	1694.20
0.07	0.63	2.27	0.60	0.045	0.030	0.035	0.000	1689.00	2043.81
0.000276	125.	110.	95.	2	0	0	0.00	866.77	2956.04

*SECNO 2.540

3470 ENCROACHMENT STATIONS= 0.0 3045.0 TYPE= 1 TARGET= 3044.999
CENTERLINE STATION AT 2872

```
      2.54      6.73  1696.73      0.00      0.00   1696.84      0.12      0.34      0.01   1695.20
    2700.         17.    2678.         8.        29.       979.        18.        55.        26.   1695.30
      0.19      0.59      2.73      0.44      0.060     0.030     0.050     0.000  1690.00   2706.44
 0.000345      1200.     1116.      900.         2         0         0      0.00    235.84   2942.28
0
 *SECNO 2.780

 3301 HV CHANGED MORE THAN HWINS


 3470 ENCROACHMENT STATIONS=    3417.0     3671.0  TYPE=      1  TARGET=      254.000
  ELENCL=   1705.20  ELENCR=   1703.50
                CENTERLINE STATION AT 3462
      2.78      6.30  1697.20      0.00      0.00   1697.82      0.62      0.82      0.15   1705.20
    2700.         0.    2700.         0.        0.       426.        0.        75.        30.   1702.70
      0.24      0.00      6.33      0.00      0.060     0.030     0.050     0.000  1690.90   3423.90
 0.001782       950.     1240.      900.         2         0         0      0.00     75.64   3499.53

 1490 NH CARD USED
 *SECNO 3.040

 3470 ENCROACHMENT STATIONS=    9798.0    13578.0  TYPE=      1  TARGET=    -9798.000
  ELENCL=   1714.10  ELENCR= 100000.00
                CENTERLINE STATION AT 10000
      3.04      5.65  1701.45      0.00      0.00   1701.92      0.47      4.08      0.02   1709.30
    2700.         0.    2700.         0.        0.       493.        0.        90.        33.   1709.50
      0.31      0.00      5.48      0.00      0.060     0.050     0.050     0.000  1695.80   9976.46
 0.005847       600.     1380.     1450.         2         0         0      0.00    128.17  10104.63
0
1
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    SECNO     DEPTH     CHSEL     CRIWS     WSELK      EG        HV        HL       CLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID      ENDST

 *SECNO 3.256

 3470 ENCROACHMENT STATIONS=    9824.0    10273.0  TYPE=      1  TARGET=      449.000
  ELENCL=   1714.90  ELENCR=   1716.80
                CENTERLINE STATION AT 10000
      3.26      4.33  1711.13      0.00      0.00   1711.74      0.60      5.78      0.04   1714.30
    2700.         0.    2700.         0.        0.       433.        0.       102.        37.   1714.70
      0.36      0.00      6.24      0.00      0.045     0.050     0.045     0.000  1706.80   9896.17
 0.013660       870.     1144.     1250.         4         0         0      0.00    179.34  10075.51
0
 *SECNO 3.262

 3470 ENCROACHMENT STATIONS=    9824.0    10273.0  TYPE=      1  TARGET=      449.000
  ELENCL=   1714.90  ELENCR=   1716.80
                CENTERLINE STATION AT 10000
      3.26      4.85  1711.65      0.00      0.00   1712.06      0.41      0.30      0.02   1714.30
    2700.         0.    2700.         0.        0.       527.        0.       102.        38.   1714.70
      0.36      0.00      5.12      0.00      0.045     0.050     0.045     0.000  1706.80   9890.78
 0.007555        30.       30.       30.         3         0         0      0.00    188.70  10079.48
0
 CCHV=   0.300  CEHV=   0.500
 *SECNO 3.274

 3265 DIVIDED FLOW


 337  NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00
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3470 ENCROACHMENT STATIONS=    9824.0   10273.0  TYPE=      1  TARGET=      449.000
                **** WINTERWOOD GOLF COURSE BRIDGE #1**
                2' DEBRIS LOADING
                SINGLE CROSS SECTION NORMAL BRIDGE
                CENTERLINE STATION AT 10000
     3.27      4.17  1712.17      0.00  1712.05  1712.71      0.53      0.59      0.06  1714.00
     2700.        0.     2700.        0.       0.      460.       0.      103.       38.   1714.00
     0.37      0.70     5.86      0.70     0.045    0.050     0.045     0.000  1708.00  9878.71
  0.011714       58.      83.       68.         3         0         0      0.00   155.76 10121.65
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TIA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 FLOW DISTRIBUTION FOR SECNO=      3.27          CWSEL=    1712.17

 STA=    9879.     9882.    10100.    10122.
   PER Q=          0.0      100.0       0.0
    AREA=          0.3      46.3        0.3
     VEL=          0.7       5.9        0.7

 *SECNO 3.280

 3470 ENCROACHMENT STATIONS=    9824.0   10273.0  TYPE=      1  TARGET=      449.000
                CENTERLINE STATION AT 10000
     3.28      4.82  1712.82      0.00  1712.66  1713.04      0.22      0.24      0.09  1714.30
     2700.        0.     2700.        0.       0.      710.       0.      103.       38.   1714.70
     0.37      0.00     3.80      0.00     0.045    0.050     0.045     0.000  1708.00  9878.54
  0.013235       45.      43.       53.         3         0         0      0.00   209.95 10088.48
0
 CCHV=    0.100  CEHV=    0.300
 1490 NH CARD USED
 *SECNO 3.470

 3470 ENCROACHMENT STATIONS=    9552.0   10218.0  TYPE=      1  TARGET=      666.000
                CENTERLINE STATION AT 10000
     3.47      5.29  1715.09      0.00  1714.91  1715.69      0.61      2.54      0.11  1716.50
     2700.        0.     2700.        0.       0.      432.       0.      116.       42.  100000.00
     0.41      0.00     6.25      0.00     0.028    0.028     0.045     0.000  1709.80  9954.23
  0.002132      620.     976.     1000.         2         0         0      0.00   149.99 10104.22
0
 *SECNO 3.490

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=    9552.0   10218.0  TYPE=      1  TARGET=      666.000
                CENTERLINE STATION AT 10000
     3.49      5.65  1715.45      0.00  1715.27  1715.92      0.47      0.22      0.01  1716.50
     2700.        2.     2698.        0.       3.      488.       0.      117.       42.  100000.00
     0.42      0.65     5.53      0.00     0.028    0.028     0.045     0.000  1709.80  9874.60
  0.001550      120.     120.      120.         3         0         0      0.00   176.57 10110.23
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TIA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST
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CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
**** WINTERWOOD GOLF COURSE BRIDGE #2**
2# DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	3.14	1715.34	1715.34	1715.19	1716.52	1.18	0.23	0.36	1718.00
2700.	1.	2699.	0.	1.	309.	0.	118.	43.	100000.00
0.42	1.01	8.74	0.00	0.028	0.023	0.045	0.000	1712.20	9878.12
0.006121	84.	84.	84.	2	12	0	0.00	141.24	10108.44

0
FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1715.34

STA=	9878.	9893.	10218.
PER Q=	0.1	99.9	
AREA=	1.4	308.8	
VEL=	1.	8.7	

1490 NH CARD USED
*SECNO 3.510

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 606.000
1
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CENTERLINE STATION AT 10000

3.51	4.54	1716.54	1715.20	1716.36	1716.85	0.35	.11	0.25	1716.50
2700.	83.	2617.	0.	52.	547.	0.	119.	43.	100000.00
0.42	1.57	4.79	0.00	0.028	0.028	0.045	0.000	1712.00	9838.53
0.001369	44.	44.	44.	12	5	0	0.00	264.57	10128.54

0
CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
CENTERLINE STATION AT 10000

3.69	3.38	1718.28	1718.27	1718.18	1719.41	1.12	2.28	0.23	1720.30
2700.	1.	2700.	0.	0.	318.	0.	128.	47.	1723.80
0.45	0.00	8.48	0.00	0.028	0.023	0.045	0.000	1715.20	9910.67
0.005989	950.	908.	850.	5	14	0	0.00	143.46	10054.13

0

149 NH CARD USED
*SECNO 3.860

3470 ENCROACHMENT STATIONS= 9828.0 10137.0 TYPE= 1 TARGET= 309.000
ELENCL= 1726.30 ELENCR= 1729.30
CENTERLINE STATION AT 10000

3.86	4.24	1723.44	0.00	1723.30	1724.47	1.03	5.06	0.01	1725.00
2700.	3.	2700.	0.	0.	332.	0.	135.	50.	1727.20
0.49	0.00	3.14	0.00	0.028	0.023	0.045	0.000	1719.20	9929.43
0.005207	950.	918.	880.	4	0	0	0.00	142.83	10072.26

0
149 NH CARD USED
*SECNO 4.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9672.0 10317.0 TYPE= 1 TARGET= 645.000
ELENCL= 1732.40 ELENCR= 1731.20
CENTERLINE STATION AT 10000

4.04	5.54	1726.54	0.00	1726.37	1726.90	0.36	2.37	0.07	1729.20
2700.	3.	2700.	0.	0.	558.	0.	145.	52.	1730.90
0.54	0.00	4.84	0.00	0.028	0.028	0.045	0.000	1721.00	9926.34
0.001431	1000.	960.	900.	3	0	0	0.00	147.43	10073.76

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1726.54

STA= 9926. 10101.
PER Q= 100.0
AREA= 557.5
VEL= 4.8

149 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8140.0 10350.0 TYPE= 1 TARGET= 2210.000
ELENCL= 1736.20 ELENCR= 1734.50
CENTERLINE STATION AT 10000

4.23	5.12	1728.12	0.00	1727.93	1728.55	0.43	1.63	0.02	1732.40
2700.	0.	2700.	0.	0.	510.	0.	157.	57.	1733.60
0.59	0.00	5.29	0.00	0.028	0.028	0.045	0.000	1723.00	9921.93
0.001794	1100.	1020.	950.	2	0	0	0.00	140.20	10062.13

0
149 NH CARD USED
*SECNO 4.420

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.00
CENTERLINE STATION AT 10000

4.42	6.12	1732.22	0.00	1732.03	1732.53	0.31	1.97	0.01	1737.00
2700.	0.	2700.	0.	0.	603.	0.	170.	60.	1737.60
0.66	0.00	4.48	0.00	0.028	0.045	0.045	0.000	1724.20	9946.77
0.002202	992.	992.	992.	3	0	0	0.00	120.09	10066.86

0
1

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - NONIMAGING FLOWS (D/S REACH)

J1   ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.         4.         0.         0.   0.000000       0.00       0.5         0.   1695.700      0.000

J2   NPROF       IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000      3.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         CLOSS      BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        ARCH       VOL        TWA     LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CCHAR      TOPWID       ENDST

*PROF 3

CCHV=    0.100  CEHV=    0.300
*SECNO 2.230

3265 DIVIDED FLOW

                SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 2506
     2.23       7.53   1695.70       0.00    1695.70    1695.72       0.02       0.00       0.00    1696.00
     3000.       842.       1863.       305.       986.       1362.       903.         0.         0.    1694.00
     0.00       0.96       1.36       0.34      0.030      0.035      0.100      0.000    1688.20    1886.88
 0.000126          0.         0.         0.          0          0          0       0.00    1175.47    3067.25

*SECNO 2.270

3265 DIVIDED FLOW

                CENTERLINE STATION AT 2219
     2.27       7.18   1695.63       0.00       0.00    1695.79       0.12       0.04       0.03    1695.30
     3000.       139.       2632.       290.       116.       882.       465.       10.         5.    1693.50
     0.02       0.92       2.95       0.62      0.030      0.030      0.060      0.000    1688.50    1823.36
 0.000461       220.       203.       150.          2          0          0       0.00     902.33    2801.37

CCHV=    0.300  CEHV=    0.500
*SECNO 2.284

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=        0.0     3032.0   TYPE=       1   TARGET=     3031.999
                CENTERLINE STATION AT 2323
     2.28       8.96   1695.76       0.00       0.00    1695.83       0.07       0.02       0.02    1695.00
     3000.       131.       2731.        89.       359.       1287.       312.       14.         7.    1695.00
     0.03       0.37       2.16       0.29      0.030      0.030      0.060      0.000    1686.80    1580.65
 0.000117       102.       100.       100.          3          0          0       0.00    1184.07    2897.20
```

*SECNO 2.285

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWIC	ENDST

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999

CENTERLINE STATION AT 2323

2.29	8.90	1695.70	1695.70	0.00	1696.09	0.39	0.00	0.16	1766.00
3000.	1.	1.	3000.	0.	0.	600.	14.	7.	1766.00
0.03	0.00	0.00	5.00	0.030	0.030	0.060	0.000	1686.60	1614.22
0.055745	1.	1.	1.	20	11	0	-1272.76	1131.44	2896.20

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1695.70

STA=	1614.	2000.	2248.	2250.	2357.	2578.	2852.	2896.
PER Q=	13.1	26.8	0.0	0.0	6.2	39.7	14.2	
AREA=	135.3	174.0	1.4	3.2	63.5	166.8	59.7	
VEL=	2.9	4.6	2.6	2.0	2.9	7.1	7.1	

*SECNO 2.301

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999

**** VEGAS VALLEY DRIVE (NB) ****
2' DEBRIS LOADING
CENTERLINE STATION AT 2323

2.30	9.66	1696.46	0.00	0.00	1696.51	0.06	0.32	0.10	1695.00
3000.	1695.	632.	673.	894.	254.	627.	17.	10.	1695.00
0.05	1.90	2.49	1.07	0.030	0.030	0.060	0.000	1686.60	1436.29
0.001219	87.	87.	87.	4	0	0	-895.71	1467.12	2908.57

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWIC	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.30 CWSEL= 1696.46

STA=	1436.	1450.	2300.	2250.	2355.	2655.	2689.	2852.	2909.
PER Q=	0.1	29.5	27.0	21.1	7.0	0.1	11.3	4.1	
AREA=	3.1	526.3	364.2	253.5	248.8	7.7	273.1	97.8	
VEL=	0.6	1.7	2.2	2.5	0.8	0.3	1.2	1.2	

*SECNO 2.302

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.30	9.68	1696.48	0.00	0.00	1696.52	0.04	0.00	0.01	1695.00
3000.	414.	2422.	163.	911.	1391.	638.	17.	10.	1695.00
0.05	0.45	1.74	0.26	0.030	0.030	0.060	0.000	1686.80	1435.64
0.000088	1.	1.	1.	2	0	0	.00	1470.70	2908.92

*SECNO 2.310

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2995.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2240

2.31	7.46	1696.46	0.00	0.00	1696.55	0.09	0.01	0.03	1698.00
3000.	158.	2721.	120.	150.	1082.	309.	19.	11.	1694.20
0.05	1.06	2.52	0.39	0.030	0.030	0.060	0.000	1689.00	2041.32
0.000334	50.	50.	50.	2	0	0	0.00	884.29	2956.15

CCHV= 0.10 CEHV= 0.300
*SECNO 2.330

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1930.0 2955.0 TYPE= 1 TARGET= 1065.000
ELENCL= 1704.00 ELENCR= 1704.00
CENTERLINE STATION AT 2240

SECNO / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	CLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
2.33	7.50	1696.50	0.00	0.00	1696.59	0.08	0.04	0.00	1698.00
3000.	108.	2675.	217.	155.	1092.	331.	23.	13.	1694.20
0.07	0.69	2.45	0.66	0.045	0.030	0.035	0.000	1689.00	2039.72
0.000314	125.	110.	95.	2	0	0	0.00	900.37	2956.25

*SECNO 2.540

3470 ENCROACHMENT STATIONS= 0.0 3045.0 TYPE= 1 TARGET= 3044.999
CENTERLINE STATION AT 2872

2.54	6.85	1696.85	0.00	0.00	1696.99	0.13	0.39	0.02	1695.20
3000.	21.	2969.	11.	31.	1002.	21.	56.	26.	1695.30
0.17	0.66	2.96	0.50	0.060	0.030	0.050	.000	1690.00	2706.14
0.000392	1200.	1116.	900.	2	0	0	0.00	238.34	2944.48

*SECNO 2.780

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 3417.0 3671.0 TYPE= 1 TARGET= 254.000
ELENCL= 1705.20 ELENCR= 1703.50
CENTERLINE STATION AT 3462

2.78	6.48	1697.38	0.00	0.00	1698.10	0.72	0.93	0.18	1705.20

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     3000.        1.     3000.        0.        0.      440.        0.       77.       31.    1702.70
      0.22       0.00      6.32      0.00      0.060     0.030     0.050     0.000  1690.90   3423.74
 0.001998        950.     1240.      900.         2         0         0      0.00     75.90   3499.64

 1490 NH CARD USED
 *SECNO 3.040

 3470 ENCROACHMENT STATIONS=     9798.0    13578.0  TYPE=      1  TARGET=    -9798.000
  ELENCL=    1714.10  ELENCR= 100000.00
                CENTERLINE STATION AT 10000
       3.04       6.07  1701.87      0.00      0.00   1702.34      0.47      4.21      0.03  1709.30
     3000.          1.     3000.        0.        0.      547.        0.       93.       34.    1705.50
       0.29       0.00      5.49      0.00      0.060     0.050     0.050     0.000  1695.80   9975.47
  0.005228        600.     1380.     1450.         2         0         0      0.00    130.20  10105.67
0
1
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    SECNO      DEPTH      CHSEL      CRIWS      XSELK      EG         HV         HL         CLOSS     BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TEA     LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TCHBIC      ENDST


 *SECNO 3.256

 3470 ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=      1  TARGET=      449.000
  ELENCL=    1714.90  ELENCR=   1716.80
                CENTERLINE STATION AT 10000
       3.26       4.42  1711.22      0.00      0.00   1711.91      0.70      5.51      0.07  1714.30
     3000.          1.     3000.        0.        0.      448.        0.      106.       38.    1714.70
       0.34       0.00      6.70      0.00      0.045     0.050     0.045     0.000  1706.80   9895.30
  0.015222          8.     1144.     1250.         4         0         0      0.00    180.85  10076.15

 *SECNO 3.262

 3470 ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=      1  TARGET=      449.000
  ELENCL=    1714.90  ELENCR=   1716.80
                CENTERLINE STATION AT 10000
       3.26       5.01  1711.81      0.00      0.00   1712.26      0.45      0.32      0.02  1714.30
     3000.          1.     3000.        0.        0.      558.        0.      106.       38.    1714.70
       0.34       0.00      5.38      0.00      .045      0.050     0.045     0.000  1706.80   9889.10
  0.007900         30.       30.       30.         3         0         0      0.00    151.61  10080.71
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 3.274

 3265 DIVIDED FLOW


 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00


 3470 ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=      1  TARGET=      449.000
                **** WINTERWOOD GOLF COURSE BRIDGE #1**
                2* DEBRIS LOADING
                SINGLE CROSS SECTION NORMAL BRIDGE
                CENTERLINE STATION AT 10000
       3.27       4.36  1712.36      0.00   1712.05   1712.54      0.59      1.62      0.07  1714.00
     3000.          1.     2997.        1.        1.      488.        1.      107.       38.    1714.00
       0.34       1.15      6.14      1.16      0.045     0.050     0.045     0.000  1708.00   9877.36
  0.012260         58.       63.       68.         5         0         0      0.00    164.71  10123.40
0
1
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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOP&IC	ENDST

FLOW DISTRIBUTION FOR SECNO= 3.27 C&SEL= 1712.36

STA=	9877.	9880.	9884.	10100.	10120.	10123.
PER Q=	0.0	0.0	99.9	0.0	0.0	
AREA=	1.5	1.6	487.9	0.6	0.6	
VEL=	1.2	1.2	6.1	1.2	1.2	

*SECNO 3.260

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 445.000
CENTERLINE STATION AT 10000

3.28	5.75	1713.05	0.00	1712.66	1713.29	0.24	0.25	0.10	1714.30
3000.	0.	3000.	0.	0.	759.	0.	108.	39.	1714.70
0.35	0.00	3.95	0.00	0.045	0.050	0.045	0.000	1708.00	9876.10
0.003278	43.	43.	53.	3	0	0	.00	214.18	10090.28

CCHV= 0.100 CEHV= 0.300
1498 NH CARD USED
*SECNO 3.470

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.47	5.52	1715.32	0.00	1714.91	1715.96	0.63	2.55	0.12	1716.50
3000.	1.	2999.	0.	1.	469.	0.	121.	43.	100000.00
0.39	0.57	6.40	0.00	0.028	0.028	0.045	0.000	1709.80	9878.53
0.002124	623.	976.	1000.	1	0	0	0.00	167.55	10108.23

*SECNO 3.490

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9552. 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.49	5.89	1715.69	0.00	1715.27	1716.19	0.50	0.22	0.01	1716.50
3000.	8.	2992.	0.	5.	527.	0.	123.	43.	100000.00
0.40	0.92	5.68	0.00	0.028	0.028	0.045	0.000	1709.80	9866.71
0.001561	120.	120.	120.	3	0	0	0.00	194.72	10114.23

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOP&IC	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3.506

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.3 MAX ELLC= 1716.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 608.000
**** WINTERWOOD GOLF COURSE BRIDGE #2**
2* DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	3.36	1715.56	1715.56	1715.19	1716.77	1.22	0.23	0.36	1718.00
3000.	3.	2992.	0.	5.	338.	0.	124.	44.	100000.00
0.40	1.53	8.86	0.00	0.028	0.023	0.045	0.000	1712.20	9870.91
0.005955	84.	84.	84.	3	6	0	0.00	157.30	10112.10

FLOW DISTRIBUTION FOR SECNO= 3.51 CHSEL= 1715.56

STA=	9871.	9894.	10218.
PER Q=	0.3	99.7	
AREA=	5.3	337.7	
VEL=	1.5	8.9	

1490 NH CARD USED
*SECNO 3.510

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 608.000
CENTERLINE STATION AT 10000

3.51	4.79	1716.79	1715.40	1716.36	1717.14	0.35	0.11	0.26	1716.50
3000.	127.	2873.	0.	77.	593.	0.	124.	44.	100000.00
0.40	1.65	4.84	0.00	0.028	0.028	0.045	0.000	1712.00	9830.36
0.001289	44.	44.	44.	12	5	0	0.00	302.33	10132.69

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SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
CENTERLINE STATION AT 10000

3.69	3.24	1718.44	1718.44	1718.18	1719.63	1.19	2.17	0.25	1720.30
3000.	0.	3000.	0.	0.	343.	0.	135.	49.	1723.80
0.43	0.00	8.75	0.00	0.028	0.023	0.045	0.000	1715.20	9909.52
0.005866	95.	918.	850.	2	14	0	.00	145.75	10055.27

1490 NH CARD USED
*SECNO 3.860

3470 ENCROACHMENT STATIONS= 9828.0 10137.0 TYPE= 1 TARGET= 309.000
ELENCL= 1726.30 ELENCR= 1729.30
CENTERLINE STATION AT 10000

3.86	4.40	1723.59	0.00	1723.30	1724.71	1.12	5.07	0.01	1725.00	
3000.	0.	3000.	0.	0.	354.	0.	142.	52.	1727.20	
0.46	0.00	8.47	0.00	0.028	0.023	0.045	0.000	1719.20	9928.59	
0.005311	960.	908.	880.	4	0	0	0.00	145.60	10074.19	

1490 NH CARD USED
*SECNO 4.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9672.0 10317.0 TYPE= 1 TARGET= 645.000
ELENCL= 1732.40 ELENCR= 1731.2
CENTERLINE STATION AT 10000

4.04	5.79	1726.79	0.00	1726.37	1727.19	0.39	2.40	0.07	1729.20
3000.	0.	3000.	0.	0.	596.	0.	153.	55.	1730.90
0.51	0.00	5.04	0.00	0.028	0.028	0.045	0.000	1721.00	9925.05
0.001453	1000.	960.	900.	3	0	0	0.00	150.27	10075.32

1
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SECNO	DEPTH	CWSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	ANL	ANCH	ANR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1726.79

STA= 9925. 10100.
PER Q= 100.
AREA= 595.8
VEL= 5.3

1490 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8140.0 10350.0 TYPE= 1 TARGET= 2210.000
ELENCL= 1736.30 ELENCR= 1734.50
CENTERLINE STATION AT 10000

4.23	5.39	1728.39	0.00	1727.93	1728.85	0.46	1.65	0.02	1732.40
3000.	0.	3000.	0.	0.	550.	0.	166.	58.	1733.60
0.56	0.00	5.46	0.00	0.028	0.028	0.045	0.000	1723.00	9920.52
0.001805	1100.	1020.	950.	2	0	0	0.00	144.71	10065.23

0
1490 NH CARD USED
*SECNO 4.420

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.00
CENTERLINE STATION AT 10000

4.42	6.32	1730.52	0.00	1730.09	1730.87	0.34	2.00	0.01	1737.00
3000.	0.	3000.	0.	0.	640.	0.	179.	61.	1737.60
0.62	0.00	4.69	0.00	0.028	0.045	0.045	0.000	1724.20	9546.24
0.002264	992.	992.	992.	3	0	1	0.00	121.38	10067.62

0
1
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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - NON EM

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	2.230	0.00	0.00	0.00	1686.20	2500.00	1695.70	0.00	1695.71	0.88	1.13	3246.16	2671.20
	2.230	0.00	0.00	0.00	1686.20	2700.00	1695.70	0.00	1695.72	1.02	1.22	3246.16	2671.20
	2.230	0.00	0.00	0.00	1686.20	3000.00	1695.70	0.00	1695.72	1.26	1.36	3246.16	2671.20
	2.27[illegible]	203.[illegible]	0.00	0.00	1686.50	2500.00	1695.68	0.00	1695.76	3.18	2.45	1471.85	1401.66
	2.270	203.00	0.00	0.00	1686.50	2700.00	1695.68	0.00	1695.78	3.72	2.65	1465.49	1399.76
	2.270	203.00	0.00	0.00	1686.50	3000.00	1695.68	0.00	1695.79	4.61	2.95	1465.30	1396.49
	2.284	100.00	0.00	0.00	1686.80	2500.00	1695.74	0.00	1695.79	0.82	1.81	1914.53	2749.95
	2.284	100.00	0.00	0.00	1686.80	2700.00	1695.75	0.00	1695.80	0.95	1.95	1935.20	2765.77
	2.284	100.00	0.00	0.00	1686.80	3000.00	1695.76	0.00	1695.83	1.17	2.16	1950.16	2777.21
*	2.285	1.00	1695.00	1696.00	1686.80	2500.00	1695.65	1695.65	1695.97	467.51	0.00	552.59	115.62
*	2.285	1.00	1695.00	1696.00	1686.80	2700.00	1695.67	1695.67	1696.02	500.32	0.00	573.72	120.71
*	2.285	1.00	1695.00	1696.00	1686.80	3000.00	1695.70	1695.70	1696.09	557.45	0.00	599.75	127.06
	2.301	87.00	1693.10	1696.00	1686.80	2500.00	1696.32	0.00	1696.37	12.26	2.36	1572.60	713.95
	2.301	87.00	1693.10	1696.00	1686.80	2700.00	1696.37	0.00	1696.43	12.26	2.42	1653.59	770.97
	2.301	87.00	1693.10	1696.00	1686.80	3000.00	1696.46	0.00	1696.51	12.15	2.49	1774.61	859.26
	2.302	1.00	0.00	0.00	1686.80	2500.00	1696.34	0.00	1696.37	0.53	1.52	2742.68	3437.94
	2.302	1.00	0.00	0.00	1686.80	2700.00	1696.43	0.00	1696.43	0.59	1.61	2822.12	3513.10
	2.302	1.00	0.00	0.00	1686.80	3000.00	1696.48	0.00	1696.52	0.68	1.74	2940.78	3627.91
	2.310	50.00	0.00	0.00	1685.00	2500.00	1696.33	0.00	1696.40	2.62	2.19	1428.01	1544.66
	2.310	50.00	0.00	0.00	1685.00	2700.00	1696.38	0.00	1696.46	2.91	2.32	1472.83	1583.23
	2.310	50.00	0.00	0.00	1685.00	3000.00	1696.46	0.00	1696.55	3.34	2.52	1540.68	1641.52
	2.330	110.00	0.00	0.00	1685.00	2500.00	1696.36	0.00	1696.43	2.51	2.15	1454.19	1579.36
	2.330	110.00	0.00	0.00	1685.00	2700.00	1696.42	0.00	1696.49	2.76	2.27	1502.63	1624.21
	2.330	110.00	0.00	0.00	1685.00	3000.00	1696.50	0.00	1696.59	3.14	2.45	1577.40	1693.78

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	2.540	1116.00	0.00	0.00	1690.00	2500.00	1696.64	0.00	1696.75	3.13	2.58	1005.32	1412.96
	2.540	1116.00	0.00	0.00	1690.00	2700.00	1696.73	0.00	1696.84	3.45	2.73	1025.26	1453.80
	2.540	1116.00	0.00	0.00	1690.00	3000.00	1696.85	0.00	1696.99	3.92	2.96	1054.75	1514.64
	2.780	1240.00	0.00	0.00	1690.90	2500.00	1697.08	0.00	1697.63	16.34	5.99	417.05	618.42
	2.780	1240.00	0.00	0.00	1690.90	2700.00	1697.20	0.00	1697.82	17.82	6.33	426.23	639.65
	2.780	1240.00	0.00	0.00	1690.90	3000.00	1697.38	0.00	1698.10	19.98	6.82	439.65	671.12
	3.040	1380.00	0.00	0.00	1695.80	2500.00	1701.16	0.00	1701.63	64.24	5.49	455.45	311.92
	3.040	1380.00	0.00	0.00	1695.80	2700.00	1701.45	0.00	1701.92	58.47	5.48	492.95	353.10
	3.040	1380.00	0.00	0.00	1695.80	3000.00	1701.87	0.00	1702.34	52.28	5.49	546.64	414.92
	3.256	1144.00	0.00	0.00	1706.80	2500.00	1711.08	0.00	1711.62	125.00	5.91	423.36	223.61
	3.256	1144.00	0.00	0.00	1706.80	2700.00	1711.13	0.00	1711.74	136.61	6.24	432.64	231.01
	3.256	1144.00	0.00	0.00	1706.80	3000.00	1711.22	0.00	1711.91	152.22	6.70	447.65	243.16
	3.262	30.00	0.00	0.00	1706.80	2500.00	1711.54	0.00	1711.92	72.56	4.92	507.70	293.56

3.262	30.00	0.00	0.00	1706.80	2700.00	1711.65	0.00	1712.06	75.55	5.12	527.43	310.63
3.262	30.00	0.00	0.00	1706.80	3000.00	1711.81	0.00	1712.26	79.00	5.38	557.79	337.55
3.274	63.25	1714.00	1713.00	1708.00	2500.00	1712.05	0.00	1712.55	112.81	5.66	441.78	235.36
3.274	63.25	1714.00	1713.00	1708.00	2700.00	1712.17	0.00	1712.71	117.14	5.86	460.86	249.44
3.274	63.25	1714.00	1713.00	1708.00	3000.00	1712.36	0.00	1712.94	122.60	6.14	490.28	270.94
3.280	43.25	0.00	0.00	1708.00	2500.00	1712.66	0.00	1712.87	31.75	3.69	678.04	443.71
3.280	43.25	0.00	0.00	1708.00	2700.00	1712.82	0.00	1713.04	32.35	3.80	709.89	474.73
3.280	43.25	0.00	0.00	1708.00	3000.00	1713.05	0.00	1713.29	32.78	3.95	759.25	523.97
3.470	976.00	0.00	0.00	1709.80	2500.00	1714.91	0.00	1715.50	21.42	6.14	407.06	540.15
3.470	976.00	0.00	0.00	1709.80	2700.00	1715.09	0.00	1715.69	21.32	6.25	432.30	584.74
3.470	976.00	0.00	0.00	1709.80	3000.00	1715.32	0.00	1715.96	21.24	6.40	470.27	650.94
3.490	120.00	0.00	0.00	1709.80	2500.00	1715.27	0.00	1715.73	15.48	5.43	461.18	635.36
3.490	120.00	0.00	0.00	1709.80	2700.00	1715.45	0.00	1715.92	15.50	5.53	490.83	685.73
3.490	120.00	0.00	0.00	1709.80	3000.00	1715.69	0.00	1716.19	15.61	5.68	535.26	759.42
• 3.506	84.00	1716.00	1715.00	1712.20	2500.00	1715.19	1715.19	1716.35	62.35	8.64	289.63	316.62
* 3.506	84.00	1718.00	1716.00	1712.20	2700.00	1715.34	1715.34	1716.52	61.21	8.74	310.28	345.10
* 3.506	84.00	1718.00	1716.00	1712.20	3000.00	1715.56	1715.56	1716.77	59.55	8.86	342.95	388.74
3.510	44.00	0.00	0.00	1712.00	2500.00	1716.36	1715.05	1716.70	14.15	4.76	553.32	664.61
3.510	44.00	0.00	0.00	1712.00	2700.00	1716.54	1715.20	1716.89	13.69	4.79	598.99	729.67
3.510	44.00	0.00	0.00	1712.00	3000.00	1716.79	1715.40	1717.14	12.89	4.84	670.51	835.64
3.690	908.00	0.00	0.00	1715.20	2500.00	1718.18	1718.15	1719.22	58.33	8.19	305.23	327.35
3.690	908.00	0.00	0.00	1715.20	2700.00	1718.28	1718.27	1719.40	59.69	8.48	318.22	348.86
* 3.690	908.00	0.00	0.00	1715.20	3000.00	1718.44	1718.44	1719.63	58.86	8.75	342.93	391.02
3.860	908.00	0.00	0.00	1715.20	2500.00	1723.30	0.00	1724.39	53.55	8.01	311.92	341.65
3.860	908.00	0.00	0.00	1715.20	2700.00	1723.44	0.00	1724.47	52.07	8.14	331.76	374.18
3.860	908.00	0.00	0.00	1715.20	3000.00	1723.59	0.00	1724.71	53.11	8.47	354.01	411.65

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.040	960.00	0.00	0.00	1721.00	2500.00	1726.37	0.00	1726.72	13.99	4.69	533.34	668.43
4.040	960.00	0.00	0.00	1721.00	2700.00	1726.54	0.00	1726.90	14.31	4.84	557.50	713.69
4.040	960.00	0.00	0.00	1721.00	3000.00	1726.79	0.00	1727.19	14.53	5.04	595.82	787.15
4.230	1020.00	0.00	0.00	1723.00	2500.00	1727.93	0.00	1728.34	17.81	5.16	484.14	592.39
4.230	1020.00	0.00	0.00	1723.00	2700.00	1728.12	0.00	1728.55	17.94	5.29	510.43	637.38
4.230	1020.00	0.00	0.00	1723.00	3000.00	1728.39	0.00	1728.85	18.05	5.46	549.66	706.05
4.420	992.00	0.00	0.00	1724.20	2500.00	1730.00	0.00	1730.30	21.59	4.33	577.13	538.01
4.420	992.00	0.00	0.00	1724.20	2700.00	1730.22	0.00	1730.53	22.02	4.48	602.87	575.43
4.420	992.00	0.00	0.00	1724.20	3000.00	1730.52	0.00	1730.87	22.64	4.69	639.77	630.45

LAS VEGAS WASH - NONDM

SUMMARY PRINTOUT TABLE 153

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.230	2500.00	1695.70	0.00	0.00	0.00	1175.47	0.00
2.230	2700.00	1695.70	0.00	0.00	0.00	1175.47	0.00
2.230	3000.00	1695.70	0.00	0.00	0.00	1175.47	0.00

	2.270	2500.00	1695.68	0.00	-0.02	0.00	910.34	203.00
	2.270	2700.00	1695.68	0.00	-0.02	0.00	937.49	203.00
	2.270	3000.00	1695.68	0.00	-0.02	0.00	962.33	203.00
	2.284	2500.00	1695.74	0.00	0.06	0.00	1157.57	100.00
	2.284	2700.00	1695.75	0.01	0.07	0.00	1173.00	100.00
	2.284	3000.00	1695.76	0.01	0.09	0.00	1184.07	100.00
*	2.285	2500.00	1695.65	0.00	-0.09	0.00	1088.85	1.00
*	2.285	2700.00	1695.67	0.02	-0.08	0.00	1108.18	1.00
*	2.285	3000.00	1695.70	0.03	-0.06	0.00	1131.44	1.00
	2.301	2500.00	1696.32	0.00	0.67	0.00	1444.07	87.00
	2.301	2700.00	1696.37	0.06	0.70	0.00	1453.35	87.00
	2.301	3000.00	1696.46	0.08	0.75	0.00	1467.12	87.00
	2.302	2500.00	1696.34	0.00	0.03	0.00	1446.16	1.00
	2.302	2700.00	1696.40	0.05	0.02	0.00	1457.24	1.00
	2.302	3000.00	1696.48	0.08	0.02	0.00	1470.70	1.00
	2.310	2500.00	1696.33	0.00	-0.01	0.00	831.32	50.00
	2.310	2700.00	1696.38	0.05	-0.02	0.00	852.79	50.00
	2.310	3000.00	1696.46	0.08	-0.02	0.00	884.29	50.00
	2.330	2500.00	1696.36	0.00	0.03	0.00	843.92	110.00
	2.330	2700.00	1696.42	0.06	0.04	0.00	866.77	110.00
	2.330	3000.00	1696.50	0.08	0.04	0.00	900.37	110.00
	2.540	2500.00	1696.64	0.00	0.28	0.00	234.14	1116.00
	2.540	2700.00	1696.73	0.08	0.31	0.00	235.84	1116.00
	2.540	3000.00	1696.85	0.12	0.35	0.00	238.34	1116.00
	2.780	2500.00	1697.00	0.00	0.43	0.00	75.45	1240.00
	2.780	2700.00	1697.20	0.12	0.47	0.00	75.64	1240.00
	2.780	3000.00	1697.38	0.18	0.52	0.00	75.90	1240.00
	3.040	2500.00	1701.16	0.00	4.09	0.00	126.74	1380.00
	3.040	2700.00	1701.45	0.29	4.26	0.00	128.17	1380.00
	3.040	3000.00	1701.87	0.41	4.49	0.00	130.20	1380.00
	3.256	2500.00	1711.08	0.00	9.92	0.00	178.39	1144.00
	3.256	2700.00	1711.13	0.05	9.68	0.00	179.34	1144.00
	3.256	3000.00	1711.22	0.08	9.35	0.00	180.85	1144.00

SECNO	Q	CHSEL	DIFWSP	DIFHSX	DIFKWS	TOPWID	XLCH
3.262	2500.00	1711.54	0.00	0.46	0.00	186.79	30.00
3.262	2700.00	1711.65	0.11	0.52	0.00	188.70	30.00
3.262	3000.00	1711.81	0.16	0.59	0.00	191.61	30.00
3.274	2500.00	1712.05	0.00	0.50	0.00	149.67	63.25
3.274	2700.00	1712.17	0.13	0.52	0.13	155.76	63.25
3.274	3000.00	1712.36	0.18	0.55	0.31	164.71	63.25
3.280	2500.00	1712.66	0.00	0.61	0.00	207.17	43.25
3.280	2700.00	1712.82	0.16	0.64	0.16	209.95	43.25
3.280	3000.00	1713.05	0.23	0.69	0.39	214.18	43.25
3.470	2500.00	1714.91	0.00	2.26	0.00	145.65	976.00
3.470	2700.00	1715.09	0.17	2.27	0.17	149.99	976.00
3.470	3000.00	1715.32	0.23	2.27	0.41	167.50	976.00
3.490	2500.00	1715.27	0.00	0.36	0.00	162.34	120.00
3.490	2700.00	1715.45	0.17	0.36	0.17	176.57	120.00

	3.490	3000.00	1715.69	0.24	0.37	0.41	194.72	120.00
*	3.506	2500.00	1715.19	0.00	-0.09	0.00	130.07	84.00
*	3.506	2700.00	1715.34	0.15	-0.11	0.15	141.24	84.00
*	3.506	3000.00	1715.56	0.22	-0.13	0.37	157.30	84.00
	3.510	2500.00	1716.36	0.00	1.17	0.00	245.31	44.00
	3.510	2700.00	1716.54	0.18	1.20	0.18	264.97	44.00
	3.510	3000.00	1716.79	0.25	1.23	0.43	302.33	44.00
	3.690	2500.00	1718.18	0.00	1.82	0.00	142.24	508.00
	3.690	2700.00	1718.28	0.10	1.74	0.10	143.46	508.00
*	3.690	3000.00	1718.44	0.16	1.65	0.26	145.75	508.00
	3.860	2500.00	1723.30	0.00	5.12	0.00	140.32	508.00
	3.860	2700.00	1723.44	0.14	5.16	0.14	142.83	508.00
	3.860	3000.00	1723.59	0.15	5.15	0.29	145.60	508.00
	4.040	2500.00	1726.37	0.00	3.07	0.00	145.61	560.00
	4.040	2700.00	1726.54	0.16	3.10	0.16	147.43	560.00
	4.040	3000.00	1726.79	0.26	3.20	0.42	150.27	560.00
	4.230	2500.00	1727.93	0.00	1.55	0.00	137.10	1020.00
	4.230	2700.00	1728.12	0.19	1.58	0.19	140.20	1020.00
	4.230	3000.00	1728.39	0.28	1.60	0.46	144.71	1020.00
	4.420	2500.00	1730.00	0.00	2.08	0.00	115.19	992.00
	4.420	2700.00	1730.22	0.22	2.10	0.22	120.09	992.00
	4.420	3000.00	1730.52	0.31	2.13	0.52	121.38	992.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	2.285	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	2.285	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	2.285	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	2.285	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	2.285	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	2.285	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	2.285	PROFILE= 3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	2.285	PROFILE= 3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.506	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.506	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.506	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.506	PROFILE= 2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.506	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.506	PROFILE= 3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	3.693	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	3.690	PROFILE= 3	MINIMUM SPECIFIC ENERGY

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

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EOF..

141

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   5-MAY-88 TIME   12:57:21          *
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X        X     X              X     X
X      X  X        X                    X     X
XXXXXXXX  XXXX     X           XXXXX    XXXXX
X      X  X        X                    X
X      X  X        X     X              X
X      X  XXXXXXX   XXXXX               XXXXXXX
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1
5-MAY-88 12:57:21


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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  51,52,53,54,55
  MODIFICATION -  50,51,52,53,54,55
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C
T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR (D/S REACH)

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        2.        0.        0.  0.000000      0.00      0.5       0.  1695.700     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
         -1.000    0.000    -1.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
        150.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC        0.030     0.100     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
GT        1.000  7800.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET        0.000     7.100     0.000     0.000     0.000     0.000   900.000  3092.000     0.000     0.000
                SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 2506
X1        2.230    38.000  2456.000  2740.000     0.000     0.000     0.000     0.000     0.000     0.000
GR     1716.000   900.000  1712.500  1110.000  1708.000  1250.000  1704.000  1450.000  1700.000  1605.000
GR     1696.000  1885.000  1692.300  1910.000  1692.000  1935.000  1693.700  2000.000  1694.400  2187.000
GR     1694.500  2353.000  1694.200  2420.000  1692.900  2429.000  1696.000  2456.000  1692.600  2482.000
GR     1692.600  2494.000  1688.200  2506.000  1689.300  2552.000  1689.800  2560.000  1689.700  2606.000
GR     1689.700  2628.000  1690.300  2646.000  1692.100  2660.000  1691.200  2689.000  1691.500  2701.000
GR     1694.000  2740.000  1692.300  3010.000  1690.200  3022.000  1692.700  3056.000  1702.300  3092.000
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GR	1700.000	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.000	4060.000	1700.000	5900.000	1704.000	7440.000	0.000	0.000	0.000	0.000
AC	0.032	0.360	1.030	1.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2219

X1	2.270	38.000	2155.000	2345.000	220.000	150.000	203.000	0.000	0.000	0.000
GR	1716.000	1.000	1712.000	35.000	1708.000	225.000	1704.000	880.000	1700.000	1085.000
GR	1700.000	1200.000	1696.000	1350.000	1696.000	1580.000	1695.500	2000.000	1695.500	2032.000
GR	1694.500	2093.000	1693.900	2120.000	1696.300	2142.000	1695.300	2155.000	1693.400	2165.000
GR	1689.700	2175.000	1689.700	2210.000	1688.500	2219.000	1689.900	2252.000	1690.100	2277.000
GR	1693.100	2297.000	1693.100	2337.000	1693.500	2345.000	1694.100	2385.000	1694.700	2405.000
GR	1694.800	2550.000	1696.500	2600.000	1693.000	2760.000	1704.000	2930.000	1700.000	2945.000
GR	1696.000	2955.000	1696.000	3670.000	1700.000	3680.000	1700.000	5025.000	1704.000	7140.000
GR	1708.000	7380.000	1708.000	7590.000	1710.000	9185.000	0.000	0.000	0.000	0.000

AC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2323

X1	2.284	25.000	2250.000	2395.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1704.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000

CENTERLINE STATION AT 2323

X1	2.285	63.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2248.000	1695.000	1695.000	2249.900	1696.300	1686.800
BT	2396.100	1696.300	1686.800	2357.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2248.000	1692.300	2249.800
GR	1686.800	2249.900	1686.800	2263.300	1692.300	2263.900	1692.300	2264.500	1686.800	2264.600
GR	1686.800	2278.500	1692.300	2278.600	1692.300	2279.200	1686.800	2279.300	1686.800	2293.200
GR	1692.300	2293.300	1692.300	2293.900	1686.800	2294.000	1686.800	2307.900	1692.300	2308.000
GR	1692.300	2308.600	1686.800	2308.700	1686.800	2322.600	1692.300	2322.700	1692.300	2323.300
GR	1686.800	2323.400	1686.800	2337.300	1692.300	2337.400	1692.300	2338.000	1686.800	2338.100
GR	1686.800	2352.000	1692.300	2352.100	1692.300	2352.700	1686.800	2352.800	1686.800	2366.700
GR	1692.300	2366.800	1692.300	2367.400	1686.800	2367.500	1686.800	2381.400	1692.300	2381.500
GR	1692.300	2382.100	1686.800	2382.200	1686.800	2396.100	1692.300	2396.200	1695.000	2397.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

**** VEGAS VALLEY DRIVE (NB) ****
2* DEBRIS LOADING
CENTERLINE STATION AT 2323

X1	2.301	63.000	2250.000	2395.000	87.000	87.000	87.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2250.000	1695.000	1695.000	2251.900	1696.300	1686.800
BT	2394.100	1693.100	1686.800	2395.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1692.300	2251.800
GR	1686.800	2251.900	1686.800	2261.800	1692.300	2261.900	1692.300	2266.500	1686.800	2266.600
GR	1686.800	2276.500	1692.300	2276.600	1692.300	2281.200	1686.800	2281.300	1686.800	2291.200
GR	1692.300	2291.300	1692.300	2295.900	1686.800	2296.000	1686.800	2305.900	1692.300	2306.000
GR	1692.300	2310.600	1686.800	2310.700	1686.800	2320.600	1692.300	2320.700	1692.300	2325.300
GR	1686.800	2325.400	1686.800	2335.300	1692.300	2335.400	1692.300	2340.000	1686.800	2340.100
GR	1686.800	2350.000	1692.300	2350.100	1692.300	2354.700	1686.800	2354.800	1686.800	2364.700
GR	1692.300	2364.800	1692.300	2369.400	1686.800	2369.500	1686.800	2379.400	1692.300	2379.500
GR	1692.300	2384.100	1686.800	2384.200	1686.800	2394.100	1692.300	2394.200	1695.000	2395.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000

GR	1696.000	5060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2323

X1	2.362	25.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1696.000	2000.000	1696.000	2250.000	1686.800	2252.000
GR	1686.800	2394.000	1696.000	2395.000	1696.000	2655.000	1696.800	2692.000	1694.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000

CENTERLINE STATION AT 2240

X1	2.314	44.000	2181.000	2420.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1930.000	1704.000	2995.000	1704.000	0.000	0.000	0.000
GR	1716.000	250.000	1712.000	270.000	1708.000	430.000	1704.000	790.000	1700.000	1000.000
GR	1696.000	1410.000	1696.000	1505.000	1700.000	1515.000	1700.000	1620.000	1704.000	1670.000
GR	1704.000	1930.000	1700.000	1940.000	1696.700	2000.000	1696.700	2032.000	1694.900	2102.000
GR	1694.900	2164.000	1696.600	2172.000	1698.000	2181.000	1694.200	2198.000	1690.100	2208.000
GR	1690.100	2223.000	1689.000	2229.000	1689.000	2251.000	1690.800	2279.000	1693.700	2300.000
GR	1691.100	2364.000	1693.100	2388.000	1694.200	2420.000	1695.400	2443.000	1695.400	2564.000
GR	1696.500	2600.000	1696.000	2760.000	1696.000	2955.000	1700.000	2965.000	1704.000	2995.000
GR	17 [illegible]	3005.000	1696.000	3180.000	1696.000	3585.000	1700.000	3595.000	1700.000	4990.000
GR	1704.000	6950.000	1708.000	7350.000	1708.000	7580.000	1710.000	9120.000	0.000	0.000

NC	0.045	0.035	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
GT	1.000	7800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2240

X1	2.336	0.000	0.000	0.000	125.000	95.000	110.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1930.000	1704.000	2995.000	1704.000	0.000	0.000	0.000

NC	0.068	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 2872

X1	2.540	36.000	2727.000	2917.000	1200.000	900.000	1116.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3045.000	1702.400	0.000	0.000	0.000
GR	1712.000	705.000	1708.000	706.000	1704.000	785.000	1700.000	1045.000	1700.000	1815.000
GR	1700.000	1815.000	1698.000	2100.000	1697.800	2578.000	1697.700	2690.000	1698.200	2703.000
GR	1695.200	2710.000	1695.200	2727.000	1691.000	2744.000	1691.800	2793.000	1691.400	2843.000
GR	1690.000	2872.000	1691.000	2896.000	1695.300	2917.000	1701.400	3025.000	1702.400	3045.000
GR	1701.800	3121.000	1701.800	3181.000	1700.600	3239.000	1700.600	3326.000	1699.100	3365.000
GR	1697.700	3430.000	1696.900	3499.000	1696.800	3561.000	1696.800	3577.000	1701.000	3670.000
GR	1700.000	3720.000	1700.000	5070.000	1704.000	7190.000	1708.000	7640.000	1708.000	7875.000
GR	1710.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 3462

X1	2.780	34.000	3417.000	3503.000	950.000	900.000	1240.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	3417.000	1705.200	3671.000	1702.800	0.000	0.000	0.000
GR	1712.000	0.000	1708.000	305.000	1704.000	885.000	1704.000	2120.000	1704.000	2260.000
GR	1704.000	2450.000	1704.000	3380.000	1705.200	3417.000	1705.200	3417.000	1705.200	3417.000
GR	1705.200	3417.000	1693.600	3427.000	1691.900	3431.000	1691.300	3434.000	1691.300	3449.000
GR	1690.900	3451.000	1690.900	3473.000	1691.600	3496.000	1702.700	3503.000	1703.500	3671.000
GR	1702.600	3704.000	1701.900	3718.000	1701.900	3726.000	1701.900	3742.000	1703.000	3748.000
GR	1702.800	3778.000	1702.500	4003.000	1701.500	4234.000	1702.500	4359.000	1703.500	4460.000
GR	1702.500	5071.000	1704.000	5640.000	1708.000	7010.000	1710.000	7630.000	0.000	0.000

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NH	5.000	0.045	9918.000	0.050	10138.000	0.045	10362.000	0.130	12103.000	0.040
NH	13576.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.048	36.000	9918.000	10138.000	600.000	1450.000	1380.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9798.000	1714.100	0.000	0.000	0.000	0.000	0.000

GR	1716.000	5153.000	1712.000	5553.000	1708.000	6393.000	1704.000	7208.000	1704.000	7323.000
GR	1704.000	7453.000	1708.000	7573.000	1708.000	9473.000	1712.000	9713.000	1714.100	9798.000
GR	1713.500	9885.000	1709.300	9916.000	1708.300	9954.000	1704.600	9969.000	1697.000	9987.000
GR	1697.000	9993.000	1697.000	10012.000	1695.100	10033.000	1695.800	10057.000	1696.000	10067.000
GR	1698.500	10069.000	1698.000	10076.000	1696.900	10079.000	1696.900	10093.000	1702.800	10108.000
GR	1709.500	10138.000	1709.700	10173.000	1708.400	10188.000	1708.400	10253.000	1708.400	10268.000
GR	1712.000	10309.000	1711.900	10335.000	1711.100	10362.000	1709.300	10860.000	1712.000	12103.000
GR	1716.000	13578.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.045	0.045	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.256	32.000	9863.000	10103.000	800.000	1250.000	1144.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9824.000	1714.900	10273.000	1716.800	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1707.700	9983.000	1706.800	9995.000	1706.800	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.262	32.000	9863.000	10103.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9824.000	1714.900	10273.000	1716.800	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9824.000	10273.000	0.000	0.000
		**** WATERWOOD GOLF COURSE BRIDGE #1**								
		2' DEBRIS LOADING								
		SINGLE CROSS SECTION NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	3.274	53.000	9900.000	10100.000	58.250	68.250	63.250	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	2.000	9900.000	1714.000	1713.000	10100.000	1714.000	1713.000	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1712.000	9880.000
GR	1714.000	9900.000	1710.000	9923.100	1713.000	9923.200	1712.000	9928.100	1710.000	9928.200
GR	1709.000	9949.000	1713.000	9949.100	1713.000	9954.000	1709.000	9954.100	1708.000	9975.000
GR	1713.000	9975.100	1713.000	9980.000	1708.000	9980.100	1708.000	10020.200	1713.000	10020.100
GR	1713.000	10025.000	1708.000	10025.100	1709.000	10046.000	1712.000	10046.100	1713.000	10051.000
GR	1709.000	10051.100	1710.000	10072.000	1713.000	10072.100	1712.000	10077.000	1710.000	10077.100
GR	1714.000	10100.000	1712.000	10120.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000
GR	1712.000	10545.000	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000
GR	1720.000	13155.000	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	0.000	0.000	0.000	0.000	9824.000	10273.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.260	32.000	9863.000	10103.000	43.250	53.250	43.250	0.000	0.000	0.000
GR	1728.000	3820.000	1724.000	4305.000	1720.000	4475.000	1716.000	5215.000	1712.000	5340.000
GR	1708.000	6620.000	1708.000	6775.000	1708.000	6920.000	1708.000	8135.000	1712.000	9410.000
GR	1713.800	9673.000	1712.400	9783.000	1714.900	9824.000	1714.300	9863.000	1710.100	9907.000
GR	1708.000	9983.000	1708.000	9995.000	1708.000	10013.000	1708.400	10027.000	1709.900	10066.000
GR	1714.700	10103.000	1716.100	10159.000	1716.800	10273.000	1716.000	10326.000	1712.000	10545.000
GR	1708.000	10575.000	1708.000	10655.000	1712.000	10695.000	1716.000	11745.000	1720.000	13155.000
GR	1724.000	13440.000	1728.000	14900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9942.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.045	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9552.000	10218.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	3.470	31.000	9942.000	10056.000	620.000	1000.000	976.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000

GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000	1715.100	9886.000
GR	1716.700	9914.000	1716.500	9942.000	1709.800	10000.000	1710.700	10017.000	1711.600	10056.000
GR	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000
GR	1728.000	11955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000
GR	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9552.000	10218.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.49	0.000	0.000	0.000	120.000	120.000	120.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	9552.000	0.028	9952.000	0.023	10048.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9610.000	10218.000	0.000	0.000

**** WINTERWOOD GOLF COURSE BRIDGE #2**

2* DEBRIS LOADING

SINGLE CROSS SECTION NORMAL BRIDGE

CENTERLINE STATION AT 10000

X1	3.506	40.000	9952.000	10048.000	84.000	84.000	84.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
BT	2.000	9952.000	1718.000	1716.000	10048.000	1718.000	1716.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1720.000	9610.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000
GR	1715.100	9886.000	1716.700	9914.000	1718.000	9952.000	1712.200	9952.100	1712.200	9986.900
GR	1716.000	9987.000	1716.000	9992.400	1712.200	9992.500	1712.200	10007.300	1716.000	10007.400
GR	1716.000	10012.900	1712.200	10013.000	1712.200	10047.900	1718.000	10048.000	1713.400	10076.000
GR	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000	1717.000	10655.000	1720.000	10955.000
GR	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000	1728.000	14405.000	1732.000	15535.000

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NH	6.000	0.045	9552.000	0.028	9942.000	0.023	10056.000	0.028	10168.000	0.130
NH	13430.000	0.040	15535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9610.000	10218.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.510	32.000	9942.000	10056.000	44.000	44.000	44.000	0.000	0.000	0.000
GR	1732.000	3280.000	1728.000	3300.000	1724.000	3320.000	1724.000	4225.000	1724.000	4570.000
GR	1720.000	4740.000	1716.000	5010.000	1712.000	6840.000	1712.000	6970.000	1716.000	9480.000
GR	1717.500	9552.000	1720.000	9610.000	1717.400	9650.000	1717.200	9717.000	1716.800	9830.000
GR	1715.100	9886.000	1716.700	9914.000	1716.500	9942.000	1712.000	10000.000	1712.000	10017.000
GR	1712.000	10056.000	1713.400	10076.000	1718.900	10168.000	1720.100	10218.000	1716.700	10299.000
GR	1717.000	10655.000	1720.000	10955.000	1720.000	11970.000	1724.000	12885.000	1728.000	13430.000
GR	1728.000	14405.000	1732.000	15535.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	9645.000	0.028	9897.000	0.023	10222.000	0.110	12855.000	0.045
NH	14765.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.690	33.000	9897.000	10222.000	950.000	850.000	908.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9681.000	1731.100	10222.000	1723.800	0.000	0.000	0.000
GR	1732.000	3795.000	1728.000	3880.000	1724.000	3970.000	1724.000	4515.000	1720.000	5705.000
GR	1716.000	6660.000	1716.000	6785.000	1720.000	7375.000	1720.000	8060.000	1721.700	8100.000
GR	1720.000	8140.000	1720.000	9320.000	1724.000	9535.000	1728.600	9645.000	1731.100	9681.000
GR	1721.400	9747.000	1720.700	9780.000	1720.100	9861.000	1720.300	9897.000	1715.400	9930.000
GR	1716.800	9971.000	1715.200	9994.000	1715.200	10005.000	1715.400	10025.000	1715.400	10035.000
GR	1719.000	10059.000	1723.800	10222.000	1720.400	10355.000	1724.000	10545.000	1724.000	12895.000
GR	1728.000	13735.000	1728.000	14075.000	1732.000	14765.000	0.000	0.000	0.000	0.000
NH	7.000	0.045	6875.000	0.130	9105.000	0.028	9521.000	0.023	10111.000	0.028
NH	10364.000	0.110	12500.000	0.045	14640.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	3.660	50.000	9921.000	10111.000	950.000	880.000	908.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9828.000	1726.300	10137.000	1729.300	0.000	0.000	0.000
GR	1740.000	3430.000	1736.000	3685.000	1732.000	4030.000	1728.000	4505.000	1724.000	5940.000

GR	1724.000	6875.000	1724.000	6875.000	1724.000	8840.000	1727.900	9105.000	1727.900	9177.000
GR	1724.700	9184.000	1724.700	9203.000	1725.900	9230.000	1728.800	9255.000	1728.000	9326.000
GR	1728.000	9410.000	1727.400	9426.000	1725.000	9448.000	1723.800	9544.000	1723.800	9613.000
GR	1724.900	9619.000	1724.900	9624.000	1724.200	9629.000	1723.200	9637.000	1723.200	9652.000
GR	1725.100	9656.000	1725.300	9725.000	1726.000	9762.000	1726.300	9828.000	1726.300	9875.000
GR	1725.000	9921.000	1721.300	9941.000	1720.300	9994.000	1719.200	9997.000	1719.200	10002.000
GR	1720.700	10004.000	1720.700	10038.000	1723.900	10078.000	1727.200	10111.000	1729.300	10137.000
GR	1728.100	10165.000	1726.900	10221.000	1726.200	10283.000	1726.700	10364.000	1724.000	10960.000
GR	1724.000	11920.000	1728.000	12500.000	1728.000	13260.000	1729.800	13910.000	1732.000	14640.000
NH	7.000	0.050	5160.000	0.130	9615.000	0.030	9513.000	0.028	10100.000	0.030
NH	10271.000	0.130	12400.000	0.045	14210.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.04	33.000	9913.000	10100.000	1000.000	900.000	960.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.000	0.000	0.000	9672.000	1722.400	10317.000	1721.200	0.000	0.000	0.000
GR	1736.000	3440.000	1732.000	4945.000	1732.000	5160.000	1732.000	8340.000	1728.000	8740.000
GR	1732.000	9485.000	1732.000	9586.000	1729.900	9619.000	1729.900	9650.000	1732.400	9672.000
GR	1732.400	9771.000	1729.900	9794.000	1729.900	9827.000	1729.200	9913.000	1722.000	9949.000
GR	1721.700	9994.000	1721.000	9997.000	1721.000	10003.000	1722.500	10005.000	1722.100	10047.000

GR	1727.400	10079.000	1730.900	10100.000	1731.800	10113.000	1732.000	10136.000	1731.500	10172.000
GR	1730.100	10196.000	1730.500	10232.000	1731.200	10271.000	1731.200	10317.000	1726.600	10333.000
GR	1726.600	10399.000	1731.500	10413.000	1731.500	10442.000	1728.000	10890.000	1728.000	12400.000
GR	1732.000	13451.000	1732.000	13980.000	1736.000	14210.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	4310.000	0.130	7565.000	0.040	8365.000	0.130	8720.000	0.030
NH	9900.000	0.028	10100.000	0.030	10247.000	0.130	12915.000	0.100	14920.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.230	36.000	9900.000	10247.000	1100.000	950.000	1020.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	8140.000	1736.000	10350.000	1734.500	0.000	0.000	0.000
GR	1740.000	3575.000	1736.000	3850.000	1736.000	4310.000	1736.000	6095.000	1732.000	7375.000
GR	1732.000	7565.000	1736.000	8140.000	1736.000	8365.000	1736.000	8720.000	1732.000	9738.000
GR	1732.400	9900.000	1723.600	9945.000	1723.100	9987.000	1723.000	9996.000	1723.000	10003.000
GR	1723.500	10003.000	1724.800	10040.000	1727.300	10053.000	1729.700	10080.000	1730.800	10095.000
GR	1732.500	10180.000	1733.600	10247.000	1734.500	10350.000	1729.500	10363.000	1730.100	10427.000
GR	1733.800	10440.000	1733.700	10515.000	1731.000	10528.000	1731.200	10616.000	1730.200	10628.000
GR	1731.500	11655.000	1733.900	10661.000	1732.000	10860.000	1732.000	12915.000	1736.000	13980.000
GR	1738.000	14920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.050	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9731.000	1739.700	10236.000	1738.000	0.000	0.000	0.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9794.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.800	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10095.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300

*SECNO 2.230

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 900.0 3092.0 TYPE= 1 TARGET= 2192.000
SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 2506

2.23	7.53	1695.70	0.00	0.00	1695.84	0.14	0.00	0.00	1696.00
7800.	2190.	4817.	793.	980.	1362.	903.	0.	0.	1694.00
0.00	2.23	3.54	0.88	0.030	0.035	0.100	0.000	1688.20	1686.88
0.000853	.	.	.		0	3	0.00	1175.47	3067.25

*SECNO 2.270

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 2219

2.27	6.94	1695.44	1695.10	0.00	1696.41	0.97	0.32	0.25	1695.30
7800.	2 .	6975.	626.	72.	838.	375.	10.	4.	1693.50
0.01	2.79	8.33	1.67	0.030	0.030	0.060	0.000	1688.50	2035.55
0.003943	223.	203.	150.	6	12	0	0.00	663.66	2797.74

CCHV= 0.300 CEHV= 0.500
*SECNO 2.284

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.28	9.66	1696.46	0.00	0.00	1696.72	0.26	0.10	0.21	1695.00
7800.	1059.	6321.	420.	898.	1389.	630.	15.	6.	1695.00
0.01	1.18	4.55	0.67	0.030	0.030	0.060	0.000	1686.80	1436.12
0.000466	100.	100.	100.	3	6	0	0.00	1468.07	2908.66

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.285

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
CENTERLINE STATION AT 2323

2.29	9.55	1696.35	1696.24	0.00	1696.84	0.49	0.00	0.11	1766.00
7800.	0.	0.	7800.	0.	0.	1355.	15.	6.	1766.00
0.01	0.00	0.00	5.59	0.030	0.030	0.060	0.000	1686.80	1439.31
0.042124	1.	1.	1.	4	14	0	-1360.67	1480.43	2906.92

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1696.35

```
 STA=    1439.     2000.     2248.     2655.     2852.     2907.
  PER Q=    27.7      26.9      13.1      23.8       8.5
  AREA=   473.3     336.4     231.2     262.2      92.2
   VEL=     4.6       5.2       4.4       7.1       7.2

 *SECNO 2.301

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

 3470 ENCROACHMENT STATIONS=       0.0    3032.0  TYPE=     1  TARGET=    3031.999
                 **** VEGAS VALLEY DRIVE (NB) ****
                 ** DEBRIS LOADING
                 CENTERLINE STATION AT 2323
     2.30     10.42  1697.22      0.00      0.00  1697.36      0.14      0.42      0.10  1695.00
     7800.     4750.     1370.     1679.     1517.      363.     1028.       19.       9.  1695.00
      0.02      3.13      3.77      1.65      1.33      0.030     0.060     0.000  1686.80  1413.61
 0.001732        87.       87.       87.         2         0         0  -895.71  1507.32  2920.94

 FLOW DISTRIBUTION FOR SECNO=     2.30          CWSEL=   1697.22

 STA=    1414.     1450.     2000.     2250.     2395.     2655.     2692.     2852.     2921.
  PER Q=      0.4      35.6      24.8      17.6       8.4       0.5       9.5       3.1
  AREA=     22.1     942.1     553.2     363.1     445.4      35.6     394.1     145.2
   VEL=      1.5       3.8       3.5       3.9       1.5       1.0       1.9       1.7
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   SECNO     DEPTH     CWSEL     CRIWS     *SELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TLA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCRAR     TOPWID       ENDST

 *SECNO 2.302

 347  ENCROACHMENT STATIONS=       0.0    3032.0  TYPE=     1  TARGET=    3031.999
                 CENTERLINE STATION AT 2323
     2.30     10.42  1697.22      0.00      0.00  1697.36      0.14      0.00      0.00  1695.00
     7800.     1836.     5315.      649.     1521.     1498.     1022.       19.       9.  1695.00
      0.02      1.21      3.55      0.63      0.33      0.030     0.060     0.000  1686.80  1413.50
 0.000257         1.        1.        1.         0         0         0      0.00  1507.51  2921.00

 *SECNO 2.310

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=    1930.0    2995.0  TYPE=     1  TARGET=    1065.000
  ELENCL=   1704.00  ELENCR=   1704.00
                 CENTERLINE STATION AT 2240
     2.31      8.13  1697.13      0.00      0.00  1697.49      0.36      0.02      0.11  1698.00
     7800.      643.     6451.      706.      260.     1240.      671.       23.       11.  1694.20
      0.03      2.48      5.20      1.05     0.030     0.030     0.060     0.000  1689.00  1992.09
 0.001214        50.       50.       50.         3         0         0      0.00   956.32  2957.84

 CCHV=    0.100  CEHV=    0.300
 *SECNO 2.330

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS=    1930.0    2995.0  TYPE=     1  TARGET=    1065.000
  ELENCL=   1704.00  ELENCR=   1704.00
                 CENTERLINE STATION AT 2240
```

2.33	8.35	1697.35	0.00	0.00	1697.62	0.27	.11	0.01	1698.70
7800.	458.	5985.	1357.	300.	1291.	788.	28.	13.	1694.20
0.03	1.53	4.64	1.72	0.045	0.030	0.035	0.000	1689.00	1988.13
0.000916	125.	110.	95.	2	0	0	0.00	563.20	2958.38

0
*SECNO 2.540

3470 ENCROACHMENT STATIONS= 0.0 3045.0 TYPE= 1 TARGET= 3044.999
CENTERLINE STATION AT 2872

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.54	8.29	1698.29	0.00	0.00	1698.80	0.51	1.11	0.07	1695.20
7800.	221.	7477.	102.	319.	1275.	79.	79.	37.	1695.30
0.09	0.69	5.87	1.31	0.060	0.030	0.050	0.000	1690.00	2059.17
0.001116	120.	1116.	900.	2	0	0	0.00	510.70	2969.88

0
*SECNO 2.780

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 3417.0 3671.0 TYPE= 1 TARGET= 254.000
ELENCL= 1705.20 ELENCR= 1703.50
CENTERLINE STATION AT 3462

2.78	8.47	1699.37	0.00	0.00	1702.05	2.68	2.60	0.65	1705.20
7800.	0.	7800.	0.	0.	594.	0.	110.	48.	1702.70
0.11	0.00	13.13	0.00	0.060	0.030	0.050	0.000	1690.50	3422.03
0.005386	950.	1240.	900.	2	0	0	0.00	78.87	3500.90

0
1490 NH CARD USED
*SECNO 3.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9798.0 13578.0 TYPE= 1 TARGET= -9758.000
ELENCL= 1714.10 ELENCR= 100000.00
CENTERLINE STATION AT 10000

3.04	11.13	1706.93	0.00	0.00	1707.50	0.57	5.24	0.21	1709.30
7800.	0.	7800.	0.	0.	1285.	0.	139.	52.	1709.50
0.18	0.00	6.05	0.00	0.060	0.050	0.050	0.000	1695.80	9959.56
0.002827	600.	1380.	1450.	3	0	0	0.00	166.93	10126.49

1
*SECNO 3.256

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
ELENCL= 1714.90 ELENCR= 1716.80
CENTERLINE STATION AT 10000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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      3.26       6.19   1712.99       0.00       0.00   1714.48       1.48       6.71       0.27   1714.30
      7800.          .      7800.         0.         0.      798.         0.        167.         57.   1714.70
       0.21       0.00       9.78       0.00       0.045      0.050      0.045      0.000    1706.80   9876.68
  0.018684       800.       1144.      1250.          3          0          0       0.00     213.17  10089.85

*SECNO 3.262

3301 HV CHANGED MORE THAN HVINS


347  ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=       1  TARGET=      449.000
 ELENCL=   1714.90  ELENCR=   1716.80
                CENTERLINE STATION AT 10000
      3.26       7.21   1714.31       0.00       0.00   1714.51       0.90       0.38       0.06   1714.30
      7800.          .      7800.         0.         0.     1024.         0.        167.         57.   1714.70
       0.21       0.00       7.61       0.00       0.045      0.050      0.045      0.000    1706.80   9866.01
  0.009079         30.        30.        30.          4          0          0       0.00     231.69  10097.70

CCHL=    0.300 CEHV=    0.300
*SECNO 3.274

3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00


3470 ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=       1  TARGET=      449.000
                **** WINTERWOOD GOLF COURSE BRIDGE #1**
                2' DEBRIS LOADING
                SINGLE CROSS SECTION NORMAL BRIDGE
                CENTERLINE STATION AT 10000
      3.27       7.02   1715.02       0.00       0.00   1716.06       1.04       1.98       0.07   1714.00
      7800.        838.      6127.       835.        89.      792.        84.       169.         58.   1714.00
       0.21       9.42       7.73       9.94       0.045      0.050      0.045      0.000    1708.00   9824.00
  0.43125         58.        53.        68.          2          0          1    -194.25     324.78  10148.78

FLOW DISTRIBUTION FOR SECNO=      3.27          CHSEL=   1715.02

STA=    9824.    9863.    9880.    9900.   10100.   10120.   10149.
  PER Q=      .8      4.2      5.7     78.6      5.7      5.0
   AREA=    16.6     31.9     43.5    792.7     40.5     43.5
    VEL=     3.9     10.4     10.9      7.7     10.5      9.0


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   SECNO     DEPTH     CHSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TEA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     COPAR     TOPWID      ENDST

*SECNO 3.280

3301 HV CHANGED MORE THAN HVINS


347  ENCROACHMENT STATIONS=     9824.0    10273.0  TYPE=       1  TARGET=      449.000
                CENTERLINE STATION AT 10000
      3.28       8.15   1716.15       0.00       0.00   1716.55       0.40       0.29       0.19   1714.30
      7800.        136.      7614.        60.        61.     1488.        43.       170.         58.   1714.70
       0.22       2.22       5.11       1.40       0.045      0.050      0.045      0.000    1708.00   9824.00
  0.002603         43.        43.        53.          2          0          0       0.00     345.48  10169.48

CCHL=    0.100 CEHV=    0.300
1490 NH CARD USED
*SECNO 3.470
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3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.47	8.00	1717.80	0.00	0.00	1718.70	0.90	1.99	0.15	1716.50
7800.	859.	5636.	1306.	348.	657.	268.	201.	67.	1711.60
0.25	2.47	8.57	4.88	0.028	0.023	0.028	0.000	1709.80	9552.00
0.001712	620.	976.	1000.	2	0	0	0.00	597.58	10149.58

*SECNO 3.490

347 ENCROACHMENT STATIONS= 9552.0 10218.0 TYPE= 1 TARGET= 666.000
CENTERLINE STATION AT 10000

3.49	8.47	1718.27	0.00	0.00	1718.89	0.62	0.17	0.03	1716.50
7800.	1270.	5228.	1302.	530.	711.	313.	205.	68.	1711.60
0.26	2.40	7.36	4.15	0.023	0.023	0.028	0.000	1709.80	9552.00
0.001136	120.	120.	120.	4	0	0	0.00	605.39	10157.39

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3.506

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCFWID	ENDST

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 608.000
**** WINTERWOOD GOLF COURSE BRIDGE #2**
2' DEBRIS LOADING
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000

3.51	6.18	1718.38	0.00	0.00	1719.16	0.78	0.20	0.08	1718.00
7800.	3129.	2291.	2380.	483.	359.	283.	207.	70.	1718.00
0.26	6.48	6.38	8.40	0.028	0.023	0.028	0.000	1712.20	9634.81
0.007262	84.	84.	84.	3	0	0	-191.93	524.61	10159.42

FLOW DISTRIBUTION FOR SECNO= 3.51 CWSEL= 1718.38

STA=	9635.	9717.	9833.	9886.	9914.	9952.	10048.	10076.	10159.
PER Q=	4.7	11.3	14.3	7.4	2.3	29.4	6.4	22.2	
AREA=	80.3	156.8	136.5	69.6	39.4	359.3	75.2	208.0	
VEL=	4.6	5.6	8.2	8.3	4.6	6.4	8.7	8.3	

1490 NH CARD USED
*SECNO 3.510

3470 ENCROACHMENT STATIONS= 9610.0 10218.0 TYPE= 1 TARGET= 608.000
CENTERLINE STATION AT 10000

3.51	6.88	1718.88	0.00	0.00	1719.35	0.47	0.10	0.09	1716.50
7800.	1885.	4362.	1553.	647.	654.	375.	209.	70.	1712.00
0.26	2.91	6.67	4.14	0.028	0.023	0.028	0.000	1712.00	9627.20
0.001039	44.	44.	44.	4	0	0	0.00	540.51	10167.70

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 3.690

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9681.0 10222.0 TYPE= 1 TARGET= 541.000
ELENCL= 1731.10 ELENCR= 1723.80
CENTERLINE STATION AT 10000

3.69	5.73	1720.93	1720.93	0.00	1722.33	1.40	1.68	0.28	1720.30
7800.	169.	7631.	0.	70.	796.	0.	235.	80.	1723.80
0.29	2.41	9.58	0.00	0.029	0.023	0.028	0.000	1715.20	9769.23
0.004155	950.	938.	850.	23	15	0	0.00	355.26	10124.49

1490 NH CARD USED
*SECNO 3.860

3301 HV CHANGED MORE THAN HVINS

7105 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9828.0 10137.0 TYPE= 1 TARGET= 309.000
ELENCL= 1726.30 ELENCR= 1729.30
CENTERLINE STATION AT 10000

3.86	6.53	1725.73	1725.73	0.00	1727.65	1.92	4.02	0.16	1725.00
7800.	17.	7783.	0.	9.	699.	0.	252.	85.	1727.20
0.31	1.86	11.13	0.00	0.028	0.023	0.028	0.000	1719.20	9895.31
0.004733	950.	938.	880.	2	8	0	0.00	200.95	10096.26

1490 NH CARD USED
*SECNO 4.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9672.0 10317.0 TYPE= 1 TARGET= 645.000
ELENCL= 1732.40 ELENCR= 1731.20
CENTERLINE STATION AT 10000

4.04	8.58	1729.58	0.00	0.00	1730.42	0.84	2.67	0.11	1729.20
7800.	6.	7794.	0.	9.	1058.	0.	271.	90.	1730.90
0.35	0.70	7.37	0.00	.030	0.028	0.028	0.000	1721.00	9866.03
0.001830	1000.	960.	900.	3	8	0	0.00	226.06	10092.09

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1729.58

STA=	9866.	9913.	10100.
PER Q=	0.1	99.9	
AREA=	9.0	1057.9	

VEL= 0.7 7.4

1490 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8140.0 10350.0 TYPE= 1 TARGET= 2210.000
ELENCL= 1736.00 ELENCR= 1734.50
CENTERLINE STATION AT 10000

4.23	8.51	1731.51	0.00	0.00	1732.30	0.79	1.87	0.01	1732.40
7800.	0.	7800.	0.	0.	1095.	0.	297.	96.	1733.60
0.39	0.00	7.12	0.00	0.030	0.030	0.028	0.000	1723.00	9904.53
0.001836	1130.	1320.	950.	2	0	0	0.00	226.14	10130.68

1490 NH CARD USED
*SECNO 4.420

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.0
CENTERLINE STATION AT 10000

4.42	9.71	1733.91	0.00	0.00	1734.71	0.81	2.41	0.01	1737.00
7800.	0.	7800.	0.	0.	1082.	0.	321.	100.	1737.60
0.43	0.00	7.21	0.00	0.030	0.045	0.028	0.000	1724.20	9940.36
0.003353	992.	992.	992.	2	0	0	0.00	143.61	10083.97

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.230	0.00	0.00	0.00	1688.20	7800.00	1695.70	0.00	1695.84	8.53	3.54	3246.16	2671.26
2.270	203.00	0.00	0.00	1688.50	7800.00	1695.44	1695.10	1696.41	39.43	8.33	1284.34	1242.21
2.284	100.00	0.00	0.00	1686.80	7800.00	1696.46	0.00	1696.72	4.68	4.55	2917.47	3605.12
2.285	1.00	1695.00	1696.00	1686.80	7800.00	1696.35	1696.24	1696.84	421.24	0.00	1394.91	380.04
2.301	87.00	1693.10	1696.00	1686.80	7800.00	1697.22	0.00	1697.36	17.32	3.77	2900.77	1874.00
2.302	1.00	0.00	0.00	1686.80	7800.00	1697.22	0.00	1697.36	2.57	3.55	4041.08	4864.81
2.310	50.00	0.00	0.00	1685.00	7800.00	1697.13	0.00	1697.49	12.14	5.20	2170.30	2238.86
2.330	110.00	0.00	0.00	1685.00	7800.00	1697.35	0.00	1697.62	9.18	4.64	2379.31	2574.77
2.540	1116.00	0.00	0.00	1690.00	7800.00	1698.29	0.00	1698.80	11.16	5.87	1672.25	2334.87
2.780	1240.00	0.00	0.00	1690.90	7800.00	1699.37	0.00	1702.05	53.68	13.13	593.85	1064.56
3.040	1380.00	0.00	0.00	1695.80	7800.00	1706.93	0.00	1707.50	28.27	6.05	1289.36	1467.03

3.256	1144.00	0.00	0.00	1706.80	7800.00	1712.59	0.00	1714.48	186.84	9.78	797.81	570.64
3.262	30.00	0.00	0.00	1706.80	7800.00	1714.01	0.00	1714.91	90.75	7.61	1024.37	818.63
3.274	63.25	1714.00	1713.00	1708.00	7800.00	1715.02	0.00	1716.06	431.25	7.73	965.72	375.66
3.280	43.25	0.00	0.00	1708.00	7800.00	1716.15	0.00	1716.55	26.03	5.11	1592.21	1528.73
3.470	976.00	0.00	0.00	1709.80	7800.00	1717.80	0.00	1718.70	17.12	8.57	1273.34	1885.35
3.490	120.00	0.00	0.00	1709.80	7800.00	1718.27	0.00	1718.89	11.36	7.36	1554.19	2314.69

1

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	3.506	84.00	1718.00	1716.00	1712.20	7800.00	1716.38	0.00	1719.16	72.62	6.38	1125.24	915.32
	3.510	44.00	0.00	0.00	1712.00	7800.00	1716.88	0.00	1719.35	10.39	6.67	1676.33	2419.66
*	3.690	908.00	0.00	0.00	1715.20	7800.00	1720.53	1720.93	1722.33	41.55	9.58	866.65	1210.06
*	3.860	908.00	0.00	0.00	1719.20	7800.00	1725.73	1725.73	1727.65	47.33	11.13	708.64	1133.77
	4.040	960.00	0.00	0.00	1721.00	7800.00	1729.58	0.00	1731.42	18.30	7.37	1066.92	1823.39
	4.230	1020.00	0.00	0.00	1722.00	7800.00	1731.51	0.00	1732.30	18.38	7.12	1095.28	1819.26
	4.420	992.00	0.00	0.00	1724.20	7800.00	1733.91	0.00	1734.71	33.53	7.21	1081.71	1347.12

1

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.230	7800.00	1695.70	0.00	0.00	0.00	1175.47	0.00
2.270	7800.00	1695.44	0.00	-0.26	0.00	663.66	203.00
2.284	7800.00	1696.46	0.00	1.02	0.00	1468.07	100.00
2.285	7800.00	1696.35	0.00	-0.11	0.00	1457.43	1.00
2.301	7800.00	1697.22	0.00	0.86	0.00	1507.32	87.00
2.302	7800.00	1697.22	0.00	0.00	0.00	1507.51	1.00
2.310	7800.00	1697.13	0.00	-0.08	0.00	956.32	50.00
2.330	7800.00	1697.35	0.00	0.21	0.00	963.20	110.00
2.540	7800.00	1698.29	0.00	0.94	0.00	910.70	1116.00
2.780	7800.00	1699.37	0.00	1.08	0.00	78.87	1240.00
3.040	7800.00	1706.93	0.00	7.56	0.00	166.93	1380.00
3.256	7800.00	1712.99	0.00	6.06	0.00	213.17	1144.00

	3.262	7800.00	1714.01	0.00	1.02	0.00	231.69	30.00
	3.274	7800.00	1715.02	0.00	1.01	0.00	324.78	63.25
	3.280	7800.00	1716.15	0.00	1.13	0.00	345.48	43.25
	3.470	7800.00	1717.80	0.00	1.64	0.00	597.58	976.00
	3.490	7800.00	1718.27	0.00	0.47	0.00	605.39	120.00
	3.506	7800.00	1718.38	0.00	0.12	0.00	524.61	84.00
	3.510	7800.00	1718.88	0.00	0.50	0.00	540.51	44.00
*	3.690	7800.00	1720.93	0.00	2.05	0.00	355.26	908.00
*	3.860	7800.00	1725.73	0.00	4.80	0.00	201.95	908.00
	4.040	7800.00	1729.58	0.00	3.86	0.00	226.06	960.00
	4.230	7800.00	1731.51	0.00	1.93	0.00	226.14	1020.00
	4.420	7800.00	1733.91	0.00	2.39	0.00	143.61	992.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=    3.690  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.690  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.690  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.860  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.860  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
 ERROR CORR -  01,02,03,04,05
 MODIFICATION -  50,51,52,53,54,55
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EOF..

116

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   5-MAY-88 TIME   12:56:25          *
 *************************************************
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 *************************************
 *  U.S. ARMY CORPS OF ENGINEERS     *
 *  THE HYDROLOGIC ENGINEERING CENTER*
 *  609 SECOND STREET, SUITE D       *
 *  DAVIS, CALIFORNIA 95616          *
 *  (916) 440-2105 (FTS) 448-2105    *
 *************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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5-MAY-88 12:56:26 PAGE 1

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 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ************************************************
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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 50-YEAR (d/s Reach)
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.000000	0.00	0.5	0.	1697.100	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.030	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	1.000	14000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	900.000	3092.000	0.000	0.000	0.000	0.000	0.000	0.000
		SECNO=River Mileage (above Advance Wastewater Treatment Plant)								
		Centerline Station at 2506								
X1	2.230	38.000	2456.000	2740.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1716.000	900.000	1712.000	1110.000	1708.000	1250.000	1704.000	1450.000	1700.000	1605.000
GR	1696.300	1885.000	1692.000	1910.000	1692.000	1935.000	1693.700	2000.000	1694.400	2187.000
GR	1694.500	2353.000	1694.200	2420.000	1692.900	2429.000	1696.000	2456.000	1692.600	2482.000
GR	1692.500	2494.000	1688.200	2506.000	1689.300	2552.000	1689.800	2560.000	1689.700	2606.000
GR	1689.700	2628.000	1690.300	2646.000	1692.100	2660.000	1691.200	2689.000	1691.500	2701.000
GR	1694.100	2740.000	1692.300	3010.000	1690.200	3022.000	1692.700	3056.000	1702.300	3092.000

GR	1700.300	3120.000	1696.000	3130.000	1696.000	3980.000	1700.000	3985.000	1701.700	4020.000
GR	1700.300	4060.000	1700.000	5800.000	1704.000	7440.000	0.000	0.000	0.000	0.000
NC	0.330	0.060	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	1.000	2930.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 2219

X1	2.270	38.000	2155.000	2345.000	220.000	150.000	203.000	0.000	0.000	0.000
GR	1716.300	1.000	1712.000	35.000	1708.000	225.000	1704.000	880.000	1700.000	1085.000
GR	1700.300	1200.000	1696.000	1350.000	1696.000	1500.000	1695.500	2000.000	1695.500	2032.000
GR	1694.500	2093.000	1693.900	2120.000	1696.300	2142.000	1695.300	2155.000	1693.400	2165.000
GR	1689.700	2175.000	1689.700	2210.000	1688.500	2219.000	1689.900	2252.000	1690.100	2277.000
GR	1693.100	2297.000	1693.100	2337.000	1693.500	2345.000	1694.100	2385.000	1694.700	2405.000
GR	1694.300	2550.000	1696.500	2600.000	1693.000	2760.000	1704.000	2930.000	1700.000	2945.000
GR	1696.000	2955.000	1696.000	3670.000	1700.000	3680.000	1700.000	5025.000	1704.000	7140.000
GR	1708.000	7380.000	1708.000	7590.000	1710.000	9105.000	0.000	0.000	0.000	0.000

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NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	1.000	3032.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 2323

X1	2.284	25.000	2250.000	2395.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.300	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.300	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.300	5070.000	1704.000	7185.000	1708.000	7470.000	1709.000	7690.000	1710.000	9230.000

Centerline Station at 2323

X1	2.285	63.000	2248.000	2397.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.300	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.300	2000.000	1695.000	1695.000	2248.000	1695.000	1695.000	2249.900	1696.300	1686.800
BT	2396.100	1696.300	1686.800	2397.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.300	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2248.000	1692.300	2249.800
GR	1686.300	2249.900	1686.800	2263.800	1692.300	2263.900	1692.300	2264.500	1686.800	2264.600
GR	1686.300	2278.500	1692.300	2278.600	1692.300	2279.200	1686.800	2279.300	1686.800	2293.200
GR	1692.300	2293.300	1692.300	2293.900	1686.800	2294.000	1686.800	2307.900	1692.300	2308.000
GR	1692.300	2308.600	1686.800	2308.700	1686.800	2322.600	1692.300	2322.700	1692.300	2323.300
GR	1686.300	2323.400	1686.800	2337.300	1692.300	2337.400	1692.300	2338.000	1686.800	2338.100
GR	1686.300	2352.000	1692.300	2352.100	1692.300	2352.700	1686.800	2352.800	1686.800	2366.700
GR	1692.300	2366.800	1692.300	2367.400	1686.800	2367.500	1686.800	2381.400	1692.300	2381.500
GR	1692.300	2382.100	1686.800	2382.200	1686.800	2396.100	1692.300	2396.200	1695.000	2397.000
GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

**** Vegas Valley Drive (NB) ****
2* Debris Loacing
Centerline Station at 2323

X1	2.301	63.000	2250.000	2395.000	87.000	87.000	87.000	0.000	0.000	0.000
X2	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	0.300	0.000	0.000	0.000	0.000	3032.000	1704.000	0.000	0.000	0.000
BT	6.000	2000.000	1695.000	1695.000	2250.000	1695.000	1695.000	2251.900	1696.300	1686.800
BT	2394.100	1693.100	1686.800	2395.000	1695.000	1695.000	2655.000	1696.000	1696.000	0.000
GR	1716.000	100.000	1712.000	120.000	1708.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.300	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1692.300	2251.800
GR	1686.300	2251.900	1686.800	2261.800	1692.300	2261.900	1692.300	2266.500	1686.800	2266.600
GR	1686.300	2276.500	1692.300	2276.600	1692.300	2281.200	1686.800	2281.300	1686.800	2291.200
GR	1692.300	2291.300	1692.300	2295.900	1686.800	2296.000	1686.800	2305.900	1692.300	2306.000
GR	1692.300	2310.600	1686.800	2310.700	1686.800	2320.600	1692.300	2320.700	1692.300	2325.300
GR	1686.300	2325.400	1686.800	2335.300	1692.300	2335.400	1692.300	2340.000	1686.800	2340.100
GR	1686.300	2350.000	1692.300	2350.100	1692.300	2354.700	1686.800	2354.800	1686.800	2364.700
GR	1692.300	2364.800	1692.300	2369.400	1686.800	2369.500	1686.800	2379.400	1692.300	2379.500
GR	1692.300	2384.100	1686.800	2384.200	1686.800	2394.100	1692.300	2394.200	1695.000	2395.000

GR	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000	1704.000	3032.000	1700.000	3050.000
GR	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000	1700.000	5070.000	1704.000	7185.000
GR	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000	0.000	0.000	0.000	0.000

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ET	0.000	3.100	100.000	3032.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2323								
X1	2.302	25.000	2250.000	2395.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1716.000	100.000	1712.000	120.000	1709.000	260.000	1704.000	950.000	1700.000	1160.000
GR	1700.000	1330.000	1696.000	1450.000	1695.000	2000.000	1695.000	2250.000	1686.800	2252.000
GR	1686.300	2394.000	1695.000	2395.000	1696.000	2655.000	1696.500	2692.000	1693.000	2852.000
GR	1704.000	3032.000	1700.000	3050.000	1696.000	3060.000	1696.000	3685.000	1700.000	3695.000
GR	1700.000	5070.000	1704.000	7185.000	1708.000	7470.000	1708.000	7690.000	1710.000	9230.000
ET	0.000	3.100	1930.000	2995.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2240								
X1	2.310	44.000	2181.000	2420.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	1716.000	250.000	1712.000	270.000	1708.000	430.000	1704.000	790.000	1700.000	1000.000
GR	1696.000	1410.000	1696.000	1505.000	1700.000	1515.000	1700.000	1620.000	1704.000	1670.000
GR	1704.000	1930.000	1700.000	1940.000	1696.700	2000.000	1696.700	2032.000	1694.900	2102.000
GR	1694.900	2164.000	1696.600	2172.000	1698.000	2181.000	1694.200	2198.000	1690.100	2208.000
GR	1690.100	2223.000	1689.000	2229.000	1689.000	2251.000	1690.800	2279.000	1693.700	2300.000
GR	1691.100	2364.000	1693.100	2388.000	1694.200	2420.000	1695.400	2443.000	1695.400	2564.000
GR	1696.500	2600.000	1696.000	2760.000	1696.000	2955.000	1700.000	2965.000	1704.000	2995.000
GR	1700.000	3005.000	1696.000	3180.000	1696.000	3585.000	1700.000	3595.000	1700.000	4990.000
GR	1704.000	6950.000	1708.000	7350.000	1708.000	7580.000	1710.000	9120.000	0.000	0.000
NC	0.045	0.035	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	1.000	14000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	1930.000	2995.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2240								
X1	2.330	0.000	0.000	0.000	125.000	95.000	110.000	0.000	0.000	0.000
NC	0.060	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	705.000	3045.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 2872								
X1	2.540	36.000	2727.000	2917.000	1200.000	900.000	1116.000	0.000	0.000	0.000
GR	1712.000	705.000	1708.000	706.000	1704.000	785.000	1700.000	1045.000	1700.000	1815.000
GR	1700.000	1815.000	1698.000	2100.000	1697.800	2578.000	1697.700	2690.000	1698.200	2703.000
GR	1695.200	2710.000	1695.200	2727.000	1691.000	2744.000	1691.800	2793.000	1691.400	2843.000
GR	1690.000	2872.000	1691.000	2896.000	1695.300	2917.000	1701.400	3025.000	1702.400	3045.000
GR	1701.300	3121.000	1701.800	3181.000	1700.600	3239.000	1700.600	3326.000	1699.100	3365.000
GR	1697.700	3430.000	1696.900	3499.000	1696.800	3561.000	1696.800	3577.000	1701.000	3670.000
GR	1700.000	3720.000	1700.000	5070.000	1704.000	7190.000	1708.000	7640.000	1708.000	7875.000
GR	1710.000	8640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 3462								
X1	2.780	34.000	3417.000	3503.000	950.000	900.000	1240.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	3417.000	1705.200	3671.000	1703.500	0.000	0.000	0.000
GR	1712.000	0.000	1708.000	305.000	1704.000	885.000	1704.000	2120.000	1704.000	2260.000
GR	1704.000	2450.000	1704.000	3380.000	1705.200	3417.000	1705.200	3417.000	1705.200	3417.000
GR	1705.200	3417.000	1693.600	3427.000	1691.900	3431.000	1691.300	3434.000	1691.300	3449.000
GR	1690.900	3451.000	1690.900	3473.000	1691.600	3496.000	1702.700	3503.000	1703.500	3671.000
GR	1702.600	3704.000	1701.900	3718.000	1701.900	3726.000	1701.900	3742.000	1703.000	3748.000
GR	1702.800	3778.000	1702.500	4003.000	1701.500	4234.000	1702.500	4359.000	1703.500	4460.000
GR	1702.500	5070.000	1704.000	5640.000	1708.000	7010.000	1710.000	7630.000	0.000	0.000

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NH	5.000	0.045	9918.000	0.050	10138.000	0.045	10362.000	0.130	12103.000	0.040
NH	13578.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	3.340	36.000	9918.000	10138.000	600.000	1450.000	1380.000	0.000	0.000	0.000

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X3          0.000       0.000       0.000    9798.000    1714.100   10309.000    1712.000       0.000       0.000       0.000
GR       1716.000    5153.000    1712.000    5553.000    1708.000    6393.000    1704.000    7208.000    1704.000    7323.000
GR       1704.000    7453.000    1708.000    7573.000    1708.000    9473.000    1712.000    9713.000    1714.100    9798.000
GR       1713.500    9885.000    1709.300    9918.000    1708.300    9954.000    1704.600    9969.000    1697.000    9987.000
GR       1697.000    9993.000    1697.000   10012.000    1699.100   10033.000    1695.800   10057.000    1696.000   10067.000
GR       1698.500   10069.000    1698.000   10076.000    1696.800   10079.000    1696.800   10093.000    1702.800   10108.000
GR       1709.500   10138.000    1709.700   10173.000    1708.400   10188.000    1708.400   10253.000    1708.400   10268.000
GR       1712.000   10309.000    1711.900   10335.000    1711.100   10362.000    1709.300   10860.000    1712.000   12103.000
GR       1715.000   13578.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

NC          0.045       0.045       0.050       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET          0.000       3.100    9824.000   10273.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1          3.256      32.000    9863.000   10103.000     800.000    1250.000    1144.000       0.000       0.000       0.000
GR       1728.000    3820.000    1724.000    4305.000    1720.000    4475.000    1716.000    5215.000    1712.000    5340.000
GR       1708.000    6620.000    1708.000    6775.000    1708.000    6920.000    1708.000    8135.000    1712.000    9410.000
GR       1713.300    9673.000    1712.400    9783.000    1714.900    9824.000    1714.300    9863.000    1710.100    9907.000
GR       1707.700    9983.000    1706.800    9995.000    1706.800   10013.000    1708.400   10027.000    1709.900   10066.000
GR       1714.700   10103.000    1716.100   10159.000    1716.800   10273.000    1716.000   10326.000    1712.000   10545.000
GR       1708.000   10575.000    1708.000   10655.000    1712.000   10695.000    1716.000   11745.000    1720.000   13155.000
GR       1724.000   13440.000    1728.000   14900.000       0.000       0.000       0.000       0.000       0.000       0.000

ET          0.000       3.100    9824.000   10273.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1          3.262       0.000       0.000       0.000      30.000      30.000      30.000       0.000       0.000       0.000

NC          0.000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.000
ET          0.000       7.100       0.000       0.000       0.000       0.000    9824.000   10273.000       0.000       0.000
                **** Winterwood Golf Course Bridge #1 **
                2* Debris Loacing
                Single cross section normal bridge
                Centerline Station at 10000
X1          3.274      53.000    9900.000   10100.000      58.250      68.250      63.250       0.000       0.000       0.000
X2          0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000      15.000
BT          2.000    9903.000    1714.000    1713.000   10100.000    1714.000    1713.000       0.000       0.000       0.000
GR       1728.000    3820.000    1724.000    4305.000    1720.000    4475.000    1716.000    5215.000    1712.000    5340.000
GR       1708.000    6620.000    1708.000    6775.000    1708.000    6920.000    1708.000    8135.000    1712.000    9410.000
GR       1713.300    9673.000    1712.400    9783.000    1714.900    9824.000    1714.300    9863.000    1712.000    9880.000
GR       1714.300    9900.000    1710.000    9923.100    1713.000    9923.200    1713.000    9928.100    1710.000    9928.200
GR       1709.000    9949.000    1713.000    9949.100    1713.000    9954.000    1709.000    9954.100    1708.000    9975.000
GR       1713.300    9975.100    1713.000    9980.000    1708.000    9980.100    1708.000   10020.000    1713.000   10020.100
GR       1713.000   10025.000    1708.000   10025.100    1709.000   10046.000    1713.000   10046.100    1713.000   10051.000
GR       1709.000   10051.100    1710.000   10072.000    1713.000   10072.100    1713.000   10077.000    1710.000   10077.100
GR       1714.000   10100.000    1712.000   10120.000    1716.100   10159.000    1716.800   10273.000    1716.000   10326.000
GR       1712.000   10545.000    1708.000   10575.000    1708.000   10655.000    1712.000   10695.000    1716.000   11745.000
GR       1720.000   13155.000    1724.000   13440.000    1728.000   14900.000       0.000       0.000       0.000       0.000
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     5-MAY-88     12:56:26                                                                                    PAGE     5

ET          0.000       7.100       0.000       0.000       0.000       0.000    9824.000   10273.000       0.000       0.000
                Centerline Station at 10000
X1          3.280      32.000    9863.000   10103.000      43.250      53.250      43.250       0.000       0.000       0.000
GR       1728.000    3820.000    1724.000    4305.000    1720.000    4475.000    1716.000    5215.000    1712.000    5340.000
GR       1708.000    6620.000    1708.000    6775.000    1708.000    6920.000    1708.000    8135.000    1712.000    9410.000
GR       1713.300    9673.000    1712.400    9783.000    1714.900    9824.000    1714.300    9863.000    1710.100    9907.000
GR       1708.000    9983.000    1708.000    9995.000    1708.000   10013.000    1708.400   10027.000    1709.900   10066.000
GR       1714.700   10103.000    1716.100   10159.000    1716.800   10273.000    1716.000   10326.000    1712.000   10545.000
GR       1708.000   10575.000    1708.000   10655.000    1712.000   10695.000    1716.000   11745.000    1720.000   13155.000
GR       1724.000   13440.000    1728.000   14900.000       0.000       0.000       0.000       0.000       0.000       0.000

NC          0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
NH          6.000       0.045    9552.000       0.028    9942.000       0.023   10056.000       0.028   10168.000       0.130
NH      13430.000       0.040   15535.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET          0.000       7.100       0.000       0.000       0.000       0.000    9552.000   10218.000       0.000       0.000
                Centerline Station at 10000
X1          3.470      31.000    9542.000   10056.000     620.000    1000.000     976.000       0.000       0.000       0.000
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GR    1732.000    3280.000    1728.000    3300.000    1724.000    3320.000    1724.000    4225.000    1724.000    4570.000
GR    1720.000    4740.000    1716.000    5010.000    1712.000    6840.000    1712.000    6970.000    1716.000    9480.000
GR    1717.500    9552.000    1717.400    9650.000    1717.200    9717.000    1716.800    9830.000    1715.100    9886.000
GR    1716.700    9914.000    1716.500    9542.000    1709.800   10000.000    1710.700   10017.000    1711.600   10056.000
GR    1713.400   10076.000    1718.900   10168.000    1720.100   10218.000    1716.700   10299.000    1717.000   10655.000
GR    1720.100   10955.000    1720.000   11970.000    1724.000   12885.000    1728.000   13430.000    1728.000   14405.000
GR    1732.000   15535.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

ET       0.000       7.100       0.000       0.000       0.000       0.000    9552.000   10218.000       0.000       0.000
                Centerline Station at 10000
X1       3.490       0.000       0.000       0.000     120.000     120.000     120.000       0.000       0.000       0.000

NC       0.100       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.000
NH       6.000       0.045    9552.000       0.028    9952.000       0.023   10048.000       0.028   10168.000       0.130
NH   13430.000       0.040   15535.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET       0.100       7.100       0.000       0.000       0.000       0.000    9610.000   10218.000       0.000       0.000
                **** Winterwood Golf Course Bridge #2**
                2* Debris Loacing
                Single cross section normal bridge
                Centerline Station at 10000
X1       3.506      40.000    9952.000   10048.000      84.000      84.000      84.000       0.000       0.000       0.000
X2       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000      15.000
BT       2.000    9952.000    1718.000    1716.000   10048.000    1718.000    1716.000       0.000       0.000       0.000
GR    1732.000    3280.000    1728.000    3300.000    1724.000    3320.000    1724.000    4225.000    1724.000    4570.000
GR    1720.000    4740.000    1716.000    5010.000    1712.000    6840.000    1712.000    6970.000    1716.000    9480.000
GR    1717.500    9552.000    1720.000    9610.000    1717.400    9650.000    1717.200    9717.000    1716.800    9830.000
GR    1715.100    9886.000    1716.700    9914.000    1716.500    9942.000    1712.000   10000.000    1712.000   10017.000
GR    1712.000   10056.000    1713.400   10076.000    1718.900   10168.000    1720.100   10218.000    1716.700   10299.000
GR    1717.300   10655.000    1720.000   10955.000    1720.000   11970.000    1724.000   12885.000    1728.000   13430.000
GR    1728.000   14405.000    1732.000   15535.000       0.000       0.000       0.000       0.000       0.000       0.000

NC       0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
NH       5.000       0.045    9645.000       0.028    9897.000       0.023   10222.000       0.110   12895.000       0.045
NH   14765.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1       3.690      33.000    9897.000   10222.000     950.000     850.000     908.000       0.000       0.000       0.000
X3       0.000       0.000       0.000    9681.000    1731.100   10222.000    1723.800       0.000       0.000       0.000
GR    1732.000    3795.000    1728.000    3880.000    1724.000    3970.000    1724.000    4515.000    1720.000    5705.000
GR    1716.000    6669.000    1716.000    6785.000    1720.000    7375.000    1720.000    8060.000    1721.700    8100.000
GR    1720.000    8140.000    1720.000    9320.000    1724.000    9535.000    1728.600    9645.000    1731.100    9681.000
GR    1721.400    9747.000    1720.700    9780.000    1720.100    9861.000    1720.300    9897.000    1715.400    9930.000
GR    1716.300    9971.000    1715.200    9994.000    1715.200   10005.000    1715.400   10025.000    1715.400   10035.000
GR    1719.000   10059.000    1723.600   10222.000    1720.400   10355.000    1724.000   10545.000    1724.000   12895.000
GR    1728.000   13735.000    1728.000   14075.000    1732.000   14765.000       0.000       0.000       0.000       0.000

NH       7.000       0.045    6875.000       0.130    9105.000       0.028    9921.000       0.023   10111.000       0.028
NH   10364.000       0.110   12500.000       0.045   14640.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       3.100    9828.000   10137.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1       3.360      50.000    9921.000   10111.000     950.000     880.000     908.000       0.000       0.000       0.000
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NH       6.000       0.045    9552.000       0.028    9942.000       0.023   10056.000       0.028   10168.000       0.130
NH   13430.000       0.040   15535.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       7.100       0.000       0.000       0.000       0.000    9610.000   10218.000       0.000       0.000
                Centerline Station at 10000
X1       3.510      32.000    9942.000   10056.000      44.000      44.000      44.000       0.000       0.000       0.000
GR    1732.000    3280.000    1728.000    3300.000    1724.000    3320.000    1724.000    4225.000    1724.000    4570.000
GR    1720.000    4740.000    1716.000    5010.000    1712.000    6840.000    1712.000    6970.000    1716.000    9480.000
GR    1717.500    9552.000    1720.000    9610.000    1717.400    9650.000    1717.200    9717.000    1716.800    9830.000
GR    1715.100    9886.000    1716.700    9914.000    1716.500    9942.000    1712.000   10000.000    1712.000   10017.000
GR    1712.000   10056.000    1713.400   10076.000    1718.900   10168.000    1720.100   10218.000    1716.700   10299.000
GR    1717.300   10655.000    1720.000   10955.000    1720.000   11970.000    1724.000   12885.000    1728.000   13430.000
GR    1728.000   14405.000    1732.000   15535.000       0.000       0.000       0.000       0.000       0.000       0.000

NC       0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
NH       5.000       0.045    9645.000       0.028    9897.000       0.023   10222.000       0.110   12895.000       0.045
NH   14765.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1       3.690      33.000    9897.000   10222.000     950.000     850.000     908.000       0.000       0.000       0.000
X3       0.000       0.000       0.000    9681.000    1731.100   10222.000    1723.800       0.000       0.000       0.000
GR    1732.000    3795.000    1728.000    3880.000    1724.000    3970.000    1724.000    4515.000    1720.000    5705.000
GR    1716.000    6669.000    1716.000    6785.000    1720.000    7375.000    1720.000    8060.000    1721.700    8100.000
GR    1720.000    8140.000    1720.000    9320.000    1724.000    9535.000    1728.600    9645.000    1731.100    9681.000
GR    1721.400    9747.000    1720.700    9780.000    1720.100    9861.000    1720.300    9897.000    1715.400    9930.000
GR    1716.300    9971.000    1715.200    9994.000    1715.200   10005.000    1715.400   10025.000    1715.400   10035.000
GR    1719.000   10059.000    1723.600   10222.000    1720.400   10355.000    1724.000   10545.000    1724.000   12895.000
GR    1728.000   13735.000    1728.000   14075.000    1732.000   14765.000       0.000       0.000       0.000       0.000

NH       7.000       0.045    6875.000       0.130    9105.000       0.028    9921.000       0.023   10111.000       0.028
NH   10364.000       0.110   12500.000       0.045   14640.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       3.100    9828.000   10137.000       0.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1       3.360      50.000    9921.000   10111.000     950.000     880.000     908.000       0.000       0.000       0.000
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GR	1741.000	3430.000	1725.000	3685.000	1732.000	4030.000	1725.000	4505.000	1724.000	5940.000
GR	1724.000	6075.000	1724.000	6875.000	1724.000	8840.000	1727.900	9105.000	1727.900	9177.000
GR	1724.700	9184.000	1724.700	9203.000	1725.900	9230.000	1728.800	9255.000	1728.000	9326.000
GR	1724.000	9410.000	1727.400	9426.000	1725.000	9448.000	1723.800	9544.000	1723.800	9613.000
GR	1724.900	9619.000	1724.900	9624.000	1724.200	9629.000	1723.200	9637.000	1723.200	9653.000
GR	1725.100	9656.000	1725.300	9725.000	1726.000	9762.000	1726.300	9828.000	1726.300	9875.000
GR	1725.000	9921.000	1721.300	9941.000	1720.300	9994.000	1719.200	9997.000	1719.200	10002.000
GR	1720.700	10004.000	1720.700	10038.000	1723.900	10078.000	1727.200	10111.000	1729.300	10137.000
GR	1728.100	10165.000	1726.900	10221.000	1726.200	10283.000	1726.700	10364.000	1724.000	10960.000
GR	1724.000	11920.000	1728.000	12500.000	1728.000	13260.000	1729.800	13910.000	1732.000	14640.000
NH	7.000	0.050	5160.000	0.130	9619.000	0.030	9913.000	0.028	10100.000	0.030
NH	10271.000	0.130	12400.000	0.045	14210.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	3.100	9771.000	10271.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.140	38.000	9913.000	10100.000	1000.000	900.000	960.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1736.000	3440.000	1732.000	4945.000	1732.000	5160.000	1732.000	8340.000	1728.000	8740.000
GR	1732.000	9485.000	1732.000	9585.000	1729.800	9619.000	1729.900	9650.000	1732.400	9672.000
GR	1732.400	9771.000	1729.900	9794.000	1729.900	9827.000	1729.200	9913.000	1722.000	9949.000
GR	1721.700	9994.000	1721.000	9997.000	1721.000	10003.000	1722.500	10005.000	1722.100	10047.000

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GR	1727.400	10078.000	1730.900	10100.000	1731.800	10113.000	1732.000	10136.000	1731.500	10172.000
GR	1730.100	10196.000	1730.500	10232.000	1731.200	10271.000	1731.200	10317.000	1726.600	10333.000
GR	1726.600	10399.000	1731.500	10413.000	1731.500	10442.000	1728.000	10890.000	1728.000	12400.000
GR	1732.000	13450.000	1732.000	13980.000	1736.000	14210.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	4310.000	0.130	7565.000	0.040	8365.000	0.130	8720.000	0.030
NH	9900.000	0.028	10100.000	0.030	10247.000	0.130	12915.000	0.100	14920.000	0.000
ET	0.000	3.100	8720.000	10350.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.230	36.000	9900.000	10247.000	1100.000	950.000	1020.000	0.000	0.000	0.000
GR	1740.000	3570.000	1736.000	3850.000	1736.000	4310.000	1736.000	6095.000	1732.000	7375.000
GR	1732.000	7565.000	1736.000	8140.000	1736.000	8365.000	1736.000	8720.000	1733.000	9738.000
GR	1732.400	9900.000	1723.600	9945.000	1723.100	9987.000	1723.000	9996.000	1723.000	10003.000
GR	1723.500	10003.000	1724.800	10040.000	1727.300	10053.000	1729.700	10080.000	1730.800	10095.000
GR	1732.500	10180.000	1733.600	10247.000	1734.500	10350.000	1729.500	10363.000	1730.100	10427.000
GR	1733.300	10440.000	1733.700	10515.000	1731.000	10528.000	1731.200	10616.000	1730.200	10628.000
GR	1731.500	10655.000	1733.900	10661.000	1732.000	10860.000	1732.000	12915.000	1736.000	13980.000
GR	1738.000	14920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.050	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9731.000	1739.700	10236.000	1738.000	0.000	0.000	0.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9794.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.800	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10095.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 2.230

3470 ENCROACHMENT STATIONS= 900.0 3092.0 TYPE= 1 TARGET= 2192.000
SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Centerline Station at 2506

2.23	8.90	1697.10	0.00	0.00	1697.28	0.18	0.00	0.00	1696.00
14000.	5444.	7068.	1487.	1822.	1760.	1365.	0.	0.	1694.00
0.00	2.99	4.02	1.09	0.030	0.035	0.100	0.000	1688.20	1208.00
0.000791	0.	0.	0.	0	0	0	0.00	1264.50	3072.50

*SECNO 2.270

3470 ENCROACHMENT STATIONS= 1.0 2930.0 TYPE= 1 TARGET= 2929.000
Centerline Station at 2219

2.27	8.58	1697.08	0.00	0.00	1697.63	0.55	0.24	0.11	1695.30
14000.	3379.	8457.	2164.	1169.	1150.	1098.	19.	6.	1693.50
0.01	2.89	7.35	1.87	0.030	0.030	0.060	0.000	1688.50	1309.29
0.002015	220.	203.	150.	3	0	0	0.00	1513.85	2823.14

CCHV= 0.300 CEHV= 0.500
*SECNO 2.284

3470 ENCROACHMENT STATIONS= 1.0 3032.0 TYPE= 1 TARGET= 3031.000
Centerline Station at 2323

2.28	10.61	1697.41	0.00	0.00	1697.79	0.38	0.11	0.05	1695.00
14000.	3605.	9139.	1256.	1682.	1526.	1124.	27.	10.	1695.00
0.02	2.14	5.99	1.12	0.030	0.030	0.060	0.000	1686.80	1407.72
0.000715	100.	100.	100.	3	0	0	0.00	1516.44	2924.15

*SECNO 2.285

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1695.00 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 1.0 3032.0 TYPE= 1 TARGET= 3031.999
Centerline Station at 2323

2.29	10.58	1697.38	0.00	0.00	1697.82	0.44	0.00	0.03	1695.00
14000.	9901.	644.	3456.	1656.	163.	1107.	28.	10.	1695.00
0.02	5.98	3.94	3.12	0.030	0.030	0.060	0.000	1686.80	1408.48
0.005654	1.	1.	1.	2	0	0	-1360.67	1515.25	2923.74

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.29 CWSEL= 1697.38

STA=	1438.	1450.	2000.	2243.	2397.	2655.	2692.	2852.	2924.
PER Q=	0.6	42.1	28.1	4.6	9.9	0.6	10.7	3.5	
AREA=	28.7	1036.2	591.2	163.3	486.0	42.0	421.4	157.2	
VEL=	2.9	5.7	6.5	3.9	2.8	2.0	3.6	3.1	

*SECNO 2.301

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1693.10 MAX ELLC= 1696.00

3470 ENCROACHMENT STATIONS= 0.0 3032.0 TYPE= 1 TARGET= 3031.999
**** Vegas Valley Drive (NB) ****
2* Debris Loading
Centerline Station at 2323

```
     2.30      11.12   1697.92      0.00      0.00   1698.16      0.24      0.28      0.06   1695.00
    14000.     3781.     2240.     2979.     2116.      466.     1396.       34.       13.   1695.00
      0.02       4.15      4.81      2.13     0.030     0.030     0.060     0.000   1686.80   1392.40
 0.002020         87.       87.       87.         3         0         0   -895.71   1540.11   2932.51
)
 FLOW DISTRIBUTION FOR SECNO=      2.30          CWSEL=   1697.92

 STA=    1392.     1450.     2000.     2250.     2395.     2655.     2692.     2852.     2933.
  PER Q=     0.9      38.2      23.7      16.0       9.0       0.7       8.7       2.9
  AREA=     55.3    1331.0     730.3     465.7     629.2      61.8     507.2     198.0
   VEL=      2.2       4.0       4.5       4.8       2.0       1.6       2.4       2.0

 *SECNO 2.302

 3470 ENCROACHMENT STATIONS=     100.0    3032.0  TYPE=     1  TARGET=    2932.000
                Centerline Station at 2323
     2.30      11.11   1697.91      0.00      0.00   1698.17      0.26      0.00      0.01   1695.00
    14000.     4331.     8200.     1469.     2116.     1600.     1396.       35.       13.   1695.00
      0.02       2.05      5.12      1.35     0.030     0.030     0.060     0.000   1686.80   1392.40
 0.000491         1.        1.        1.         3         0         0      0.00   1540.12   2932.51
)
 *SECNO 2.310

 3265 DIVIDED FLOW

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROP      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 3470 ENCROACHMENT STATIONS=    1933.0    2995.0  TYPE=     1  TARGET=    1065.000
                Centerline Station at 2240
     2.31       8.72   1697.72      0.00      0.00   1698.46      0.74      0.05      0.24   1698.00
    14000.     1503.    10673.     1824.      371.     1378.      587.       39.       14.   1694.20
      0.02       4.05      7.74      1.35     0.030     0.030     0.060     0.000   1689.00   1981.43
 0.002369         50.       50.       50.         3         0         0      0.00    974.84   2959.30
)
 CCHV=   0.100  CEHV=   0.300
 *SECNO 2.330

 3470 ENCROACHMENT STATIONS=    1930.0    2995.0  TYPE=     1  TARGET=    1065.000
                Centerline Station at 2240
     2.33       9.24   1698.24      0.00      0.00   1698.68      0.44      0.19      0.03   1698.00
    14000.     1100.     9331.     3569.      477.     1502.     1268.       46.       17.   1694.20
      0.03       2.30      6.21      2.32     0.045     0.030     0.035     0.000   1689.00   1971.97
 0.001368         125.      110.       95.         3         0         0      0.00    988.63   2560.60
)
 *SECNO 2.540

 3470 ENCROACHMENT STATIONS=     705.0    3045.0  TYPE=     1  TARGET=    2340.000
                Centerline Station at 2372
     2.54       9.58   1699.58      0.00      0.00   1700.39      0.80      1.59      0.11   1695.20
    14000.     1828.    11855.      316.     1307.     1522.      163.      124.       43.   1695.30
      0.08       1.40      7.79      1.35     0.060     0.030     0.050     0.000   1690.00   1873.95
 0.001555        1200.     1116.      900.         2         0         0      0.00   1118.94   2992.89
)
 *SECNO 2.780

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
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3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 3417.0 3671.0 TYPE= 1 TARGET= 254.000
ELENCL= 1705.20 ELENCR= 1703.50
Centerline Station at 3462

2.78	10.95	1701.85	1701.85	0.00	1706.68	4.83	3.53	1.21	1705.20
14000.	0.	14000.	0.	0.	794.	0.	173.	57.	1702.70
0.09	0.00	17.63	0.00	0.060	0.030	0.050	0.000	1690.90	3419.89
0.007205	950.	1240.	900.	20	8	0	0.00	82.57	3502.46

)
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 3.040

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9793.0 10309.0 TYPE= 1 TARGET= 511.000
ELENCL= 1714.10 ELENCR= 1712.00
Centerline Station at 10000

3.04	15.51	1711.31	0.00	0.00	1711.83	0.52	4.73	0.43	1709.30
14000.	23.	12976.	1000.	16.	2167.	374.	227.	65.	1709.50
0.16	1.47	5.99	2.67	0.045	0.050	0.045	0.000	1695.80	9902.22
0.001989	600.	1380.	1450.	3	0	0	0.00	398.89	10301.12

)
*SECNO 3.256

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
Centerline Station at 10000

3.26	8.41	1715.21	0.00	0.00	1716.96	1.75	4.76	0.37	1714.30
14000.	65.	13928.	8.	24.	1309.	5.	278.	74.	1714.70
0.19	2.73	10.64	1.53	0.045	0.050	0.045	0.000	1706.80	9824.00
0.013408	800.	1144.	1250.	4	0	0	0.00	299.29	10123.29

)
*SECNO 3.262

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9824.0 10273.0 TYPE= 1 TARGET= 449.000
Centerline Station at 10000

3.26	9.26	1716.06	0.00	0.00	1717.31	1.25	0.31	0.05	1714.30
14000.	213.	13702.	85.	57.	1514.	37.	279.	74.	1714.70
0.19	3.73	9.05	2.28	0.045	0.050	0.045	0.000	1706.80	9824.00
0.007982	30.	30.	30.	4	0	0	0.00	333.54	10157.54

)
CCHV= 0.300 CEHV= 0.500
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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 *SECNO 3.274

 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1714.00 MAX ELLC= 1713.00

 3470 ENCROACHMENT STATIONS=    9824.0    10273.0  TYPE=      1  TARGET=      449.000
                 **** Winterwood Golf Course Bridge #1**
                 2* Debris Loading
                 Single cross section normal bridge
                 Centerline Station at 10000
      3.27      8.97   1716.97      0.00      0.00   1713.15      1.18      0.81      0.02   1714.00
     14000.     2549.     8941.     2410.      237.     1182.      253.      281.       75.    1714.00
       0.19     11.19      7.57      9.54     0.045     0.050     0.045     0.000   1708.00    9824.00
  0.024259       58.       63.       68.         3         0         0   -194.25    449.00   10273.00
1
 FLOW DISTRIBUTION FOR SECNO=      3.27          CWSEL=   1716.97

 STA=    9824.     9863.     9880.     9901.    10100.    10120.    10159.    10273.
   PER Q=      5.8       5.8       7.3      63.9       7.3       8.5       1.4
    AREA=     92.4      64.9      79.4    1191.8      79.4     113.9      59.3
     VEL=      8.8      12.5      12.9       7.6      12.9      10.5       3.3

 *SECNO 3.280

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS=    9824.0    10273.0  TYPE=      1  TARGET=      449.000
                 Centerline Station at 10000
      3.28     10.00   1718.00      0.00      0.00   1718.61      0.61      0.29      0.17   1714.30
     14000.      515.    12564.      921.      133.     1928.      322.      284.       75.    1714.70
       0.20      3.88      6.52      2.85     0.045     0.050     0.045     0.000   1708.00    9824.00
  0.002996       43.       43.       53.         3         0         0      0.00    449.00   10273.00
2
 CCHV=   0.100 CEHV=   0.300
 1490 NH CARD USED
 *SECNO 3.470

 3470 ENCROACHMENT STATIONS=    9552.0    10218.0  TYPE=      1  TARGET=      666.000
                 Centerline Station at 10000
      3.47      9.80   1719.60      0.00      0.00   1720.40      0.81      1.73      0.06   1716.50
     14000.     3944.     7683.     2373.     1049.      862.      469.      332.       86.    1711.60
       0.23      3.76      8.91      5.06     0.028     0.023     0.028     0.000   1709.80    9552.00
  0.001288       620.      976.     1000.         2         0         0      0.00    644.97   10196.97
2
1
   5-MAY-88     12:56:26                                                                    PAGE    13

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *SECNO 3.490

 3470 ENCROACHMENT STATIONS=    9552.0    10218.0  TYPE=      1  TARGET=      666.000
                 Centerline Station at 10000
      3.49     10.07   1719.87      0.00      0.00   1720.55      0.69      0.14      0.01   1716.50
     14000.     4196.     7415.     2389.     1155.      893.      509.      339.       88.    1711.60
       0.24      3.63      8.30      4.70     0.028     0.023     0.028     0.000   1709.80    9552.00
  0.001067       120.      120.      120.         3         0         0      0.00    656.29   10208.29
3
 CCHV=   0.300 CEHV=   0.500
 1490 NH CARD USED
 *SECNO 3.506
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 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD= 1718.00 MAX ELLC= 1716.00

 3470 ENCROACHMENT STATIONS=    9610.0   10218.0  TYPE=     1  TARGET=     608.000
                **** Winterwood Golf Course Bridge #2**
                2* Debris Loading
                Single cross section normal bridge
                Centerline Station at 10000
      3.51      7.78  1719.98      0.00      0.00  1720.75      0.77      0.15      0.04  1718.00
    14000.      7107.     3013.     3881.     1007.      512.      496.      343.       89.   1718.00
      0.24      7.05      5.88      7.32     0.028     0.023     0.028     0.000  1712.20  9610.31
 0.003853       84.       84.       84.         4         0         0   -191.93   602.68 10212.99

 FLOW DISTRIBUTION FOR SECNO=      3.51          CWSEL=   1719.98

 STA=    9610.     9717.     9830.     9886.     9914.     9952.    10048.    10076.    10168.    10213.
   PER Q=    9.6      16.4      13.4       6.9       4.5      21.5       7.4      20.3       0.1
    AREA=  230.7     336.7     225.7     114.2      99.9     512.2     119.8     352.3      24.3
     VEL=    5.8       6.8       8.3       8.4       6.3       5.9       8.6       8.1       0.5

 1490 NH CARD USED
 *SECNO 3.510

 3470 ENCROACHMENT STATIONS=    9610.0   10218.0  TYPE=     1  TARGET=     608.000
                Centerline Station at 10000
      3.51      8.18  1720.18      0.00      0.00  1720.87      0.68      0.09      0.03  1716.50
    14000.      4499.     6677.     2824.     1068.      802.      554.      346.       89.   1712.00
      0.24      4.21      8.33      5.10     0.028     0.023     0.028     0.000  1712.00  9610.00
 0.001235       44.       44.       44.         3         0         0      0.00   608.00 10218.00

 5-MAY-98     12:56:26                                                          PAGE   14

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 CCHV=   0.100 CEHV=   0.300
 1490 NH CARD USED
 *SECNO 3.690

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=    9681.0   10222.0  TYPE=     1  TARGET=     541.000
  ELENCL=  1731.10  ELENCR=  1723.80
                Centerline Station at 10000
      3.69      7.22  1722.42  1722.42      0.00  1724.03      1.61      1.86      0.28  1720.30
    14000.      1525.    12475.        0.      292.     1173.        0.      387.      100.   1723.80
      0.27      5.22     10.63      0.00     0.028     0.023     0.109     0.000  1715.20  9740.97
 0.003988       950.      908.      850.        20        12         0      0.00   435.03 10175.10

 1490 NH CARD USED
 *SECNO 3.860

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
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3470 ENCROACHMENT STATIONS= 9828.0 10137.0 TYPE= 1 TARGET= 309.000
Centerline Station at 10000

3.86	8.57	1727.77	1727.77	0.00	1729.99	2.22	3.45	0.18	1725.00
14000.	799.	13207.	3.	167.	1077.	2.	415.	108.	1727.20
0.29	4.75	12.27	1.37	0.028	0.023	0.028	0.000	1719.20	9828.00
0.003602	950.	908.	880.	20	9	0	0.00	290.04	10118.04

1490 NH CARD USED
*SECNO 4.040

3265 DIVIDED FLOW

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9771.0 10271.0 TYPE= 1 TARGET= 500.000
Centerline Station at 10000

4.04	10.44	1731.44	0.00	0.00	1732.72	1.28	2.63	0.05	1729.20
14000.	747.	13084.	169.	224.	1400.	82.	448.	116.	1730.90
0.32	3.33	9.34	2.17	0.030	0.028	0.030	0.000	1721.00	9779.82
0.002146	1000.	960.	900.	3	0	0	0.00	425.99	10271.00

FLOW DISTRIBUTION FOR SECNO= 4.04 CWSEL= 1731.44

STA=	9780.	9913.	10100.	10271.
PER Q=	5.3	93.5	1.2	
AREA=	224.4	1400.3	81.7	
VEL=	3.3	9.3	2.1	

1490 NH CARD USED
*SECNO 4.230

3470 ENCROACHMENT STATIONS= 8720.0 10350.0 TYPE= 1 TARGET= 1630.000
Centerline Station at 10000

4.23	10.79	1733.79	0.00	0.00	1734.67	0.88	1.92	0.04	1732.40
14000.	497.	13503.	0.	285.	1758.	2.	492.	131.	1733.60
0.36	1.74	7.68	0.10	0.030	0.030	0.130	0.000	1723.00	9467.63
0.001649	1100.	1020.	950.	2	0	0	0.00	801.88	10269.52

1490 NH CARD USED
*SECNO 4.420

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9731.0 10236.0 TYPE= 1 TARGET= 505.000
ELENCL= 1739.70 ELENCR= 1738.00
Centerline Station at 10000

4.42	11.88	1736.08	0.00	0.00	1737.60	1.52	2.73	0.19	1737.00
14000.	0.	14000.	0.	0.	1415.	0.	531.	142.	1737.60
0.39	0.00	9.90	0.10	0.030	0.045	0.130	0.000	1724.20	9936.62
0.005512	992.	992.	992.	2	0	0	0.00	169.63	10106.24

1

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 50-YR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2.230	0.00	0.00	0.00	1688.20	14000.00	1697.10	0.00	1697.28	7.91	4.02	4946.34	4977.81
	2.270	203.00	0.00	0.00	1688.50	14000.00	1697.08	0.00	1697.63	20.15	7.35	3417.07	3118.60
	2.284	100.00	0.00	0.00	1686.80	14000.00	1697.41	0.00	1697.79	7.15	5.99	4332.33	5236.92
	2.285	1.00	1695.00	1695.00	1686.80	14000.00	1697.38	0.00	1697.82	56.54	3.94	2926.07	1861.81
	2.311	87.00	1693.10	1695.00	1686.80	14000.00	1697.92	0.00	1698.16	20.20	4.81	3978.27	3114.98
	2.312	1.00	0.00	0.00	1686.80	14000.00	1697.91	0.00	1698.17	4.91	5.12	5112.89	6316.22
	2.310	50.00	0.00	0.00	1689.00	14000.00	1697.72	0.00	1698.46	23.69	7.74	2736.42	2876.48
	2.330	110.00	0.00	0.00	1689.00	14000.00	1698.24	0.00	1698.68	13.68	6.21	3247.43	3785.55
	2.540	1116.00	0.00	0.00	1690.00	14000.00	1699.58	0.00	1700.39	15.55	7.79	2991.30	3550.51
*	2.780	1240.00	0.00	0.00	1690.90	14000.00	1701.85	1701.85	1706.68	72.05	17.63	793.98	1649.29
	3.040	1380.00	0.00	0.00	1695.80	14000.00	1711.31	0.00	1711.93	19.89	5.99	2557.07	3138.76
	3.256	1144.00	0.00	0.00	1706.80	14000.00	1715.21	0.00	1716.96	134.08	10.64	1337.58	1209.03
	3.252	30.00	0.00	0.00	1706.80	14000.00	1716.86	0.00	1717.31	79.82	9.05	1608.49	1567.05
	3.274	63.25	1714.00	1713.00	1708.00	14000.00	1716.97	0.00	1718.15	242.59	7.57	1671.22	858.86
	3.280	43.25	0.00	0.00	1708.00	14000.00	1718.00	0.00	1718.61	29.96	6.52	2382.98	2557.91
	3.470	976.00	0.00	0.00	1709.80	14000.00	1719.60	0.00	1720.40	12.88	8.91	2379.78	3901.02
	3.490	120.00	0.00	0.00	1709.80	14000.00	1719.87	0.00	1720.55	10.67	8.30	2556.58	4286.72

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3.506	84.00	1719.00	1715.00	1712.20	14000.00	1719.98	0.00	1720.75	38.53	5.88	2015.96	2255.51
	3.510	44.00	0.00	0.00	1712.00	14000.00	1720.18	0.00	1720.87	12.35	8.33	2424.19	3984.23
*	3.690	908.00	0.00	0.00	1715.20	14000.00	1722.42	1722.42	1724.03	39.88	10.63	1465.30	2216.92
*	3.860	908.00	0.00	0.00	1719.20	14000.00	1727.77	1727.77	1729.99	36.02	12.27	1245.14	2332.82
	4.040	960.00	0.00	0.00	1721.00	14000.00	1731.44	0.00	1732.72	21.46	9.34	1706.43	3022.34

4.230	1020.00	0.00	0.00	1723.00	14000.00	1733.79	0.00	1734.67	16.49	7.68	2045.84	3447.93
4.420	992.00	0.00	0.00	1724.20	14000.00	1736.08	0.00	1737.60	55.12	9.90	1414.58	1885.72

1

LAS VEGAS WASH - 50-YE

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2.230	14000.00	1697.10	0.00	0.00	0.00	1264.50	0.00
	2.270	14000.00	1697.09	0.00	-0.02	0.00	1513.85	203.00
	2.284	14000.00	1697.41	0.00	0.33	0.00	1516.44	100.00
	2.285	14000.00	1697.38	0.00	-0.03	0.00	1515.25	1.00
	2.301	14000.00	1697.92	0.00	0.54	0.00	1540.11	87.00
	2.302	14000.00	1697.91	0.00	-0.01	0.00	1540.12	1.00
	2.310	14000.00	1697.72	0.00	-0.20	0.00	974.84	50.00
	2.330	14000.00	1698.24	0.00	0.53	0.00	988.63	110.00
	2.540	14000.00	1699.58	0.00	1.34	0.00	1118.94	1116.00
*	2.780	14000.00	1701.85	0.00	2.27	0.00	82.57	1240.00
	3.040	14000.00	1711.31	0.00	9.46	0.00	398.89	1380.00
	3.256	14000.00	1715.21	0.00	3.90	0.00	299.29	1144.00
	3.252	14000.00	1716.06	0.00	0.86	0.00	333.54	30.00
	3.274	14000.00	1716.97	0.00	0.91	0.00	449.00	63.25
	3.280	14000.00	1718.00	0.00	1.03	0.00	449.00	43.25
	3.470	14000.00	1719.60	0.00	1.59	0.00	644.97	976.00
	3.490	14000.00	1719.87	0.00	0.27	0.00	656.29	120.00
	3.506	14000.00	1719.98	0.00	0.11	0.00	602.68	84.00
	3.510	14000.00	1720.18	0.00	0.20	0.00	608.00	44.00
*	3.690	14000.00	1722.42	0.00	2.24	0.00	435.03	908.00
*	3.860	14000.00	1727.77	0.00	5.35	0.00	290.04	908.00
	4.040	14000.00	1731.44	0.00	3.67	0.00	425.99	960.00
	4.230	14000.00	1733.79	0.00	2.35	0.00	801.89	1020.00
	4.420	14000.00	1736.08	0.00	2.29	0.00	169.63	992.00

1

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=     2.780  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     2.780  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     2.780  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     3.690  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     3.690  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     3.690  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     3.860  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     3.860  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     3.860  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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      48
    4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    4.42        Centerline Station at 10000
   4.437        Centerline Station at 10000
   4.438        Centerline Station at 10000
   4.456        ****  Nellis Boulevard  ****
   4.456             1* Debris Loading
   4.456               Normal Bridge
   4.456        Centerline Station at 10000
   4.457        Centerline Station at 10000
    4.47        Centerline Station at 10000
    4.57        Centerline Station at 10000
    4.68        Centerline Station at 10000
   4.695        Centerline Station at 10000
   4.696        Centerline Station at 10000
   4.714        ****  Charlester Boulevard  ****
   4.714             2* Debris Loading
   4.714               Normal Bridge
   4.714        Centerline Station at 10000
   4.715        Centerline Station at 10000
    4.72        Centerline Station at 10000
    4.75        Centerline Station at 10000
    4.94        Centerline Station at 10000
    5.18        Centerline Station at 10000
   5.205        Centerline Station at 10000
   5.206        Centerline Station at 10000
   5.224        ****  Stewart Avenue  ****
   5.224             2* Debris Loading
   5.224               Normal Bridge
   5.224        Centerline Station at 10000
   5.225        Centerline Station at 10000
    5.24        Centerline Station at 10000
    5.46        Centerline Station at 10000
    5.75        Centerline Station at 10000
    5.78        Centerline Station at 10000
   5.794        Centerline Station at 10000
   5.795        Centerline Station at 10000
   5.813        ****  Bonanza Avenue  ****
   5.813             2* Debris Loading
   5.813               Normal Bridge
   5.813        Centerline Station at 10000
   5.814        Centerline Station at 10000
    5.82        Centerline Station at 10000
    5.96        Centerline Station at 10000
    6.16        Centerline Station at 10000
    6.35        Centerline Station at 10000
    6.40        Centerline Station at 10000
    6.57        Centerline Station at 10000
    6.71        Centerline Station at 15000
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR (Middle Reach)                    10/87     SRM
J1              3                                       0.5          1739.8
J2     -1              -1
J3    150
NC 0.050   0.027  0.0450      0.1      0.3
QT         24000   84000
NH       5 0.045    3880    0.130     8050   0.050     9935   0.045    10132   0.100
NH 15890
K1   4.42      27     9935    10132      992      992      992
GR1748.0     2045   1744.0     2335   1740.0     3060   1740.0     3515   1736.0     3675
GR1736.0     3880   1736.0     6450   1736.5     8050   1739.7     9731   1739.7     9794
GR1737.4     9813   1737.0     9935   1724.9     9956   1724.8    10000   1724.2    10052
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GR1732.3   10072   1735.4   10095   1737.6   10132   1737.6   10179   1736.0   10236
GR1736.0   10750   1735.6   11580   1736.0   12365   1740.0   13440   1744.0   14870
GR1744.0   15500   1748.0   15990
NC                    0.3      0.5
NH       5   0.045     3896   0.130     8066   0.050     9933   0.045    10067   0.100
NH   15905
X1  4.437        24     9933    10067       90       90       90
GR1748.0      2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0      3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0      9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6     10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0     13455   1744.0    14885   1744.0    15515   1748.0    15905
X1  4.438        38     9933    10067        1        1        1
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT   10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0      2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0      3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0      9933   1724.0     9954   1736.0   9954.1   1736.0     9956   1724.0   9956.1
GR1724.0      9984   1736.0   9984.1   1736.0     9986   1724.0   9986.1   1724.0    10014
GR1736.0  10314.1   1736.0    10016   1724.0  10016.1   1724.0    10044   1736.0  10044.1
GR1736.0     10046   1724.0  10046.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0     10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0     14885   1744.0    15515   1748.0    15905
X1  4.456        38     9933    10067       98       98       98
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT   10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0      2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0      3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0      9933   1724.0     9953   1736.0   9953.1   1736.0     9957   1724.0   9957.1
GR1724.0      9983   1736.0   9983.1   1736.0     9987   1724.0   9987.1   1724.0    10013
GR1736.0  10313.1   1736.0    10017   1724.0  10017.1   1724.0    10043   1736.0  10043.1
GR1736.0     10047   1724.0  10047.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0     10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0     14885   1744.0    15515   1748.0    15905
X1  4.457        24     9933    10067        1        1        1
X2                                                                                    15
GR1748.0      2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0      3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0      9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6     10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0     13455   1744.0    14885   1744.0    15515   1748.0    15905
QT       2    24000    84000
NH       6   0.045     3730   0.130     8295   0.050     9966   0.045    10097   0.050
NH   11360   0.100    15640
K1  4.47        41     9919    10050       60       60       60
GR1752.0      1595   1748.0     2035   1744.0     2425   1740.0     2805   1740.0     2915
GR1740.0      3730   1736.0     3745   1736.0     3840   1740.0     4015   1740.0     5405
GR1736.0      6015   1736.0     6200   1737.2     8295   1739.2     9740   1738.8     9851
GR1737.3      9875   1739.1     9903   1736.9     9919   1725.6     9942   1725.6     9963
GR1727.1      9978   1724.8     9989   1724.8    10010   1728.9    10012   1728.1    10025
GR1733.8     10029   1737.5    10040   1738.8    10050   1738.8    10072   1737.1    10078
GR1737.7     10230   1737.1    10310   1738.4    10373   1739.4    10392   1737.3    10397
GR1738.4     10434   1736.0    11360   1740.0    12920   1744.0    13910   1748.0    14620
GR1752.0     15640
NC                    0.1      0.3
NH       6   0.045     3365   0.130     8820   0.050     9470   0.065     9914   0.055
NH   10061   0.070    10493   0.100    15515
K1  4.57        43     9914    10061      350      800      562
GR1756.0      1380   1752.0     1575   1748.0     2055   1744.0     2675   1740.0     2690
GR1740.0      2770   1744.0     2780   1744.0     3365   1740.0     4025   1740.0     5560
GR1738.0      5140   1740.0     6990   1740.0     8820   1740.0     9470   1740.5     9751
GR1738.8      9862   1737.3     9886   1739.1     9914   1736.9     9930   1725.6     9953
GR1725.6      9974   1727.1     9989   1725.0    10000   1725.8    10021   1728.9    10023
GR1728.1     10036   1733.8    10040   1737.5    10051   1738.8    10061   1738.8    10083
GR1737.1     10089   1737.7    10241   1737.1    10321   1738.4    10384   1739.4    10403
GR1737.3     10408   1738.4    10445   1740.5    10493   1740.0    11925   1744.0    13145
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GR1748.0	14000	1752.0	14575	1756.0	15515				
NH 5	0.130	1580	0.045	3635	0.130	9935	0.050	10050	0.100
NH 16450									
K1 4.68	26	9935	10065	350	550	540			
GR1760.0	1210	1756.0	1580	1752.0	1775	1748.0	2215	1744.0	2755
GR1744.0	2865	1744.0	3635	1740.0	4355	1740.0	9320	1740.0	9935
GR1725.6	9942	1725.6	9963	1727.1	9978	1725.2	9989	1725.2	10010
GR1728.9	10012	1728.1	10025	1733.8	10029	1737.5	10040	1738.8	10050
GR1740.0	10065	1744.0	13035	1748.0	13975	1752.0	14925	1756.0	15500
GR1760.0	16450								
NC			0.3	0.5					
NH 5	0.130	1659	0.045	3714	0.130	9913	0.050	10087	0.100
NH 16494									
K1 4.695	21	9913	10087	100	100	100			
GR1760.0	1289	1756.0	1659	1752.0	1854	1748.0	2294	1744.0	2834
GR1744.0	2944	1744.0	3714	1740.0	4434	1740.0	9399	1740.9	9661
GR1740.3	9913	1733.0	9913.2	1725.6	9927.9	1725.6	10072.2	1733.0	10086.8
GR1740.5	10087	1744.0	13079	1748.0	14019	1752.0	14959	1756.0	15544
GR1760.0	16494								
K1 4.696	35	9913	10087	1	1	1			
BT 6	9661	1740.9	1740.9	9913	1740.3	1740.3	9913.2	1740.5	1733.0
BT9913.2	1740.5	1733.0	10086.8	1740.5	1733.0	10087	1740.5	1740.5	
GR1760.0	1289	1756.0	1659	1752.0	1854	1748.0	2294	1744.0	2834
GR1744.0	2944	1744.0	3714	1740.0	4434	1740.0	9399	1740.9	9661
GR1740.3	9913	1733.0	9913.2	1725.6	9927.9	1733.0	9930	1733.0	9931.5
GR1725.6	9931.5	1725.6	9976.2	1733.0	9976.3	1733.0	9977.7	1725.6	9977.8
GR1725.6	10022.4	1733.0	10022.5	1733.0	10023.9	1725.6	10024	1725.6	10068.6
GR1733.0	10068.7	1733.0	10070.1	1725.6	10070.2	1733.0	10086.8	1740.0	10087
GR1744.0	13079	1748.0	14019	1752.0	14969	1756.0	15544	1760.0	16494
K1 4.714	35	9913	10087	98	98	98			
BT 6	9661	1740.9	1740.9	9913	1740.3	1740.3	9913.2	1740.5	1733.0
BT9913.2	1740.5	1733.0	10086.8	1740.5	1733.0	10087	1740.5	1740.5	
GR1760.0	1289	1756.0	1659	1752.0	1854	1748.0	2294	1744.0	2834
GR1744.0	2944	1744.0	3714	1740.0	4434	1740.0	9399	1740.9	9661
GR1740.3	9913	1733.0	9913.2	1725.6	9927.9	1733.0	9928	1733.0	9933.5
GR1725.6	9933.6	1725.6	9974.2	1733.0	9974.2	1733.0	9979.7	1725.6	9979.8
GR1725.6	10020.4	1733.0	10020.5	1733.0	10025.9	1725.6	10026	1725.6	10066.6
GR1733.0	10066.7	1733.0	10072.1	1725.6	10072.2	1733.0	10086.8	1740.0	10087
GR1744.0	13079	1748.0	14019	1752.0	14969	1756.0	15544	1760.0	16494
K1 4.715	21	9913	10087	1	1	1			
GR1760.0	1289	1756.0	1659	1752.0	1854	1748.0	2294	1744.0	2834
GR1744.0	2944	1744.0	3714	1740.0	4434	1740.0	9399	1740.9	9661
GR1740.3	9913	1733.0	9913.2	1725.6	9927.9	1725.6	10072.2	1733.0	10086.8
GR1740.5	10087	1744.0	13079	1748.0	14019	1752.0	14969	1756.0	15544
GR1760.0	16494								
NH 8	0.130	1810	0.045	3880	0.130	8875	0.040	9954	0.035
NH 10096	0.100	14690	0.045	15375	0.130	16450			
K1 4.72	33	9954	10096	50	50	50			
GR1760.0	1420	1756.0	1810	1752.0	1995	1748.0	2455	1744.0	2935
GR1744.0	3050	1744.0	3880	1740.0	4875	1740.0	6390	1744.0	7295
GR1744.0	8875	1742.3	9833	1741.9	9954	1729.6	9976	1729.2	9988
GR1728.3	9995	1728.3	10004	1728.9	10012	1729.6	10028	1729.9	10055
GR1732.6	10062	1733.0	10079	1734.7	10082	1743.5	10096	1743.9	10137
GR1744.0	10240	1744.0	11760	1742.9	12510	1744.0	13400	1748.0	14690
GR1752.0	15375	1756.0	15925	1760.0	16450				
NC			0.1	0.3					
NH 8	0.130	1810	0.045	3880	0.130	8875	0.040	9954	0.035
NH 10096	0.100	14690	0.045	15375	0.130	16450			
K1 4.75				150	150	150			
NH 8	0.130	3095	0.045	3280	0.100	7641	0.045	9897	0.035
NH 10059	0.130	13550	0.049	15455	0.130	17025			
K1 4.94	32	9897	10059	750	965	965			
GR1760.0	1720	1756.0	1875	1756.0	2530	1752.0	2690	1748.0	3095
GR1744.0	3196	1744.0	3280	1744.0	7641	1746.6	9781	1746.3	9889
GR1745.6	9897	1745.6	9912	1730.5	9944	1730.6	9963	1730.6	9982
GR1730.1	10000	1731.9	10014	1734.3	10035	1747.9	10059	1748.7	10097
GR1748.7	10142	1748.0	10160	1744.0	10195	1744.0	11245	1748.0	11520
GR1744.0	13550	1748.0	14300	1752.0	15140	1752.0	15755	1756.0	15865

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GR1756.0   16455   1760.0   17025
NH     6   0.130     5425   0.045     9330   0.065     9905   0.035    10040   0.130
NH 17355   0.040    18900
X1  5.18      27     9905   10040     1100     1277     1277
GR1768.0    2100   1764.0    2520   1760.0    2820   1756.0    3255   1752.0    3575
GR1752.0    4030   1748.0    4165   1748.0    5425   1748.0    9330   1753.5    9803
GR1750.8    9826   1750.9    9875   1750.5    9905   1732.1    9937   1732.3    9978
GR1733.7    9988   1732.3    9997   1732.3   10002   1735.9   10017   1737.3   10029
GR1750.8   10040   1753.7   10071   1752.0   10200   1752.0   14875   1756.0   15780
GR1760.0   17355   1770.0   18900
NC                   0.3      0.5
NH     9   0.040     2545   0.130     3465   0.040     3675   0.130     5910   0.045
NH  9160   0.045     9915   0.035    10085   0.130    17630   0.040    18935
X1 5.205      22     9915   10085      150      150      150
GR1772.0    1950   1768.0    2215   1764.0    2545   1760.0    2950   1756.0    3285
GR1752.0    3465   1752.0    3570   1752.0    3675   1748.0    4320   1748.0    5910
GR1748.0    9160   1749.5    9705   1750.2    9915   1732.9    9948   1732.9   10052
GR1749.9   10085   1750.7   10225   1752.0   10275   1752.0   14055   1756.0   15285
GR1760.0   17630   1770.0   18935
X1 5.206      36     9915   10085        1        1        1
BT     4    9705   1749.5   1749.5    9915   1750.2   1748.6   10085   1749.9   1748.6
BT 10225   1750.7   1750.7
GR1772.0    1950   1768.0    2215   1764.0    2545   1760.0    2950   1756.0    3285
GR1752.0    3465   1752.0    3570   1752.0    3675   1748.0    4320   1748.0    5910
GR1748.0    9160   1749.5    9705   1748.6    9915   1732.9    9950   1748.6    9950.1
GR1748.6    9951.5   1732.9    9951.6   1732.9    9982.8   1748.6    9982.9   1748.6    9984.3
GR1732.9    9984.4   1732.9   10015.6   1748.6   10015.7   1748.6   10017.1   1732.9   10017.2
GR1732.9   10048.4   1748.6   10048.5   1748.6   10049.9   1732.9   10050   1748.6   10085
GR1750.7   10225   1752.0   10275   1752.0   14055   1756.0   15285   1760.0   17630
GR1770.0   18935
X1 5.224      36     9915   10085       98       98       98
BT     4    9705   1749.5   1749.5    9915   1750.2   1748.6   10085   1749.9   1748.6
BT 10225   1750.7   1750.7
GR1772.0    1950   1768.0    2215   1764.0    2545   1760.0    2950   1756.0    3285
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GR1752.0    3465   1752.0    3570   1752.0    3675   1748.0    4320   1748.0    5910
GR1748.0    9160   1749.5    9705   1748.6    9915   1733.1    9948   1748.6    9948.1
GR1748.6    9953.5   1733.1    9953.6   1733.1    9980.8   1748.6    9980.9   1748.6    9986.3
GR1733.1    9986.4   1733.1   10013.6   1748.6   10013.7   1748.6   10019.1   1733.1   10019.2
GR1733.1   10046.4   1748.6   10046.4   1748.6   10051.9   1733.1   10052   1748.6   10085
GR1750.7   10225   1752.0   10275   1752.0   14055   1756.0   15285   1760.0   17630
GR1770.0   18935
X1 5.225      22     9915   10085        1        1        1
GR1772.0    1950   1768.0    2215   1764.0    2545   1760.0    2950   1756.0    3285
GR1752.0    3465   1752.0    3570   1752.0    3675   1748.0    4320   1748.0    5910
GR1748.0    9160   1749.5    9705   1750.2    9915   1733.1    9948   1733.1   10052
GR1749.9   10085   1750.7   10225   1752.0   10275   1752.0   14055   1756.0   15285
GR1760.0   17630   1770.0   18935
NH    10   0.040     2530   0.100     3430   0.040     3725   0.130     6415   0.045
NH  9310   0.045     9905   0.035    10040   0.030    10470   0.150    17670   0.040
NH 18830
X1  5.24      30     9905   10040       60       60       60
GR1772.0    2005   1768.0    2380   1764.0    2530   1760.0    2985   1756.0    3280
GR1752.0    3430   1752.0    3530   1752.0    3725   1748.0    5155   1748.0    6415
GR1748.0    7065   1752.0    9310   1754.5    9803   1751.8    9826   1751.9    9875
GR1751.5    9905   1733.1    9937   1733.3    9978   1734.7    9988   1733.3    9997
GR1733.3   10002   1736.9   10017   1738.3   10029   1751.8   10040   1754.7   10071
GR1752.0   10470   1752.0   13925   1756.0   15240   1760.0   17670   1770.0   18830
NC                   0.1      0.3
NH     5   0.045     3110   0.130     8140   0.040     9916   0.035    10051   0.130
NH 18390
X1  5.46      36     9916   10051     1198     1198     1198
GR1776.0    2110   1772.0    2325   1768.0    2540   1764.0    2980   1760.0    3040
GR1760.0    3110   1760.0    3235   1756.0    3885   1756.0    5415   1752.0    6005
GR1752.0    6970   1756.0    8140   1756.0    9205   1757.8    9459   1756.6    9628
GR1755.6    9684   1757.1    9788   1756.2    9916   1741.7    9949   1741.5    9975
GR1741.4    9995   1741.4   10005   1743.4   10023   1748.9   10034   1748.9   10046
GR1758.0   10051   1759.7   10088   1758.8   10131   1757.5   10151   1758.6   10156
GR1758.9   10191   1756.0   11870   1756.0   13430   1760.0   14710   1760.0   16520
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GR1770.0	18390								
NC 0.025	0.025	0.025							
NH 9	0.045	2785	0.120	4110	0.045	8635	0.080	9540	0.040
NH 9930	0.025	10071	0.130	10430	0.040	10990	0.120	17865	
X1 5.75	31	9930	10071	1532	1532	1532			
GR1772.0	2445	1768.0	2785	1764.0	4110	1760.0	5145	1760.0	8635
GR1764.0	9540	1764.8	9605	1763.8	9717	1762.6	9821	1762.8	9910
GR1758.6	9930	1744.8	9959	1744.8	9972	1744.8	10028	1744.8	10039
GR1745.0	10041	1763.8	10071	1765.2	10102	1765.3	10169	1765.4	10247
GR1765.8	10344	1763.6	10368	1764.8	10376	1763.8	10430	1764.0	10465
GR1764.0	10815	1760.5	10990	1760.0	14820	1764.0	15135	1764.0	16295
GR1770.0	17865								
X1 5.78				150	150	150			
NC			0.3	0.5					
NH 7	0.100	3790	0.040	8475	0.100	9725	0.040	9911	0.025
NH 10091	0.040	10915	0.130	17605					
X1 5.794	22	9911	10091	50	150	70			
GR1776.0	1580	1772.0	2120	1772.0	2420	1768.0	2780	1768.0	3790
GR1764.0	4155	1760.0	5315	1760.0	6875	1762.2	8475	1764.0	9725
GR1764.4	9911	1762.5	9912.4	1745.7	9945.6	1745.7	10054.5	1762.5	10087.6
GR1763.5	10091	1764.2	10256	1764.0	10305	1764.0	10915	1764.0	16130
GR1768.0	16295	1770.0	17605						
X1 5.795	36	9911	10091	1	1	1			
BT 7	9725	1764.0	1764.0	9911	1764.4	1764.4	9912.4	1766.0	1762.5
BT9993.5	1766.0	1762.5	10087.6	1766.0	1762.5	10091	1763.5	1763.5	10256
BT1764.2	1764.2								
GR1776.0	1580	1772.0	2120	1772.0	2420	1768.0	2780	1768.0	3790
GR1764.0	4155	1760.0	5315	1760.0	6875	1762.2	8475	1764.0	9725
GR1764.4	9911	1762.5	9912.4	1745.7	9947.6	1762.5	9947.7	1762.5	9948.9
GR1745.7	9949.0	1745.7	9982.1	1762.5	9982.2	1762.5	9983.4	1745.7	9983.5
GR1745.7	10016.6	1762.5	10016.7	1752.5	10017.9	1745.7	10018.0	1745.7	10051.1
GR1762.5	10051.2	1762.5	10052.4	1745.7	10052.5	1762.5	10087.6	1763.5	10091
GR1764.2	10256	1764.0	10305	1764.0	10915	1764.0	16130	1768.0	16295
GR1770.0	17605								
X1 5.813	36	9911	10091	98	98	98			
BT 7	9725	1764.0	1764.0	9911	1764.4	1764.4	9912.4	1766.0	1762.5
BT9985.5	1766.0	1762.5	10087.6	1766.0	1762.5	10091	1763.5	1763.5	10256
BT1764.2	1764.2								
GR1776.0	1580	1772.0	2120	1772.0	2420	1768.0	2780	1768.0	3790
GR1764.0	4155	1760.0	5315	1760.0	6875	1762.2	8475	1764.0	9725
GR1764.4	9911	1762.5	9912.4	1745.9	9945.6	1762.5	9945.7	1762.5	9950.9
GR1745.9	9951.0	1745.9	9980.1	1762.5	9980.2	1762.5	9985.4	1745.9	9985.5
GR1745.9	10014.6	1762.5	10014.7	1752.5	10019.9	1745.9	10020.0	1745.9	10049.1
GR1762.5	10049.2	1762.5	10054.4	1745.9	10054.5	1762.5	10087.6	1763.5	10091
GR1764.2	10256	1764.0	10305	1764.0	10915	1764.0	16130	1768.0	16295
GR1770.0	17605								
X1 5.814	22	9911	10091	1	1	1			
GR1776.0	1580	1772.0	2120	1772.0	2420	1768.0	2780	1768.0	3790
GR1764.0	4155	1760.0	5315	1760.0	6875	1762.2	8475	1764.0	9725
GR1764.4	9911	1762.5	9912.4	1745.9	9945.6	1745.9	10054.5	1762.5	10087.6
GR1763.5	10091	1764.2	10256	1764.0	10305	1764.0	10915	1764.0	16130
GR1768.0	16295	1770.0	17605						
NH 7	0.130	3750	0.045	8360	0.100	9605	0.05	9913	0.032
NH 10069	0.040	10430	0.130	17560					
X1 5.82	30	9913	10069	30	30	30			
GR1776.0	1480	1772.0	2280	1768.0	2765	1768.0	3750	1764.0	4200
GR1764.0	4650	1760.0	5405	1760.0	6855	1763.2	8360	1764.0	9605
GR1762.5	9753	1761.2	9821	1763.8	9857	1761.4	9883	1760.3	9897
GR1760.7	9913	1749.4	9941	1750.0	9953	1749.4	9956	1745.9	9973
GR1745.9	10027	1760.1	10069	1759.3	10083	1760.2	10112	1761.4	10148
GR1760.3	10132	1764.0	10430	1764.0	15750	1768.0	16260	1770.0	17560
NC			0.1	0.3					
NH 7	0.130	5985	0.040	7995	0.100	9841	0.050	9913	0.032
NH 10069	0.050	15015	0.130	17710					
X1 5.96	26	9913	10069	750	650	730			
GR1776.0	1975	1772.0	2370	1768.0	3700	1764.0	5985	1764.0	7595
GR1764.0	9600	1764.5	9841	1754.5	9888	1761.8	9897	1759.7	9913
GR1751.8	9941	1752.0	9953	1752.0	9966	1749.4	9973	1749.4	10027

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GR1762.4   10359   1761.8   10383   1762.4   10112   1763.7   10148   1762.4   10182
GR1764.1   10289   1768.0   10455   1768.0   15015   1768.0   16445   1770.0   16960
GR1775.0   17710
NH     7    0.100     9698    0.040     9939    0.032    10054    0.040    13800    0.100
NH 14580    0.040    15590    0.130    17505
X1  6.16       48     9939    10054     1056     1056     1056
GR1780.0     1375   1776.0     2245   1772.0     3025   1768.0     9030   1768.1     9698
GR1768.1     9728   1764.7     9756   1765.1     9763   1769.1     9786   1766.9     9809
GR1765.9     9845   1766.7     9878   1761.5     9892   1767.3     9911   1763.0     9939
GR1755.1     9962   1751.8     9989   1751.8    10011   1760.7    10044   1764.9    10054
GR1764.9    10072   1765.8    10077   1765.7    10090   1764.9    10098   1765.7    10102
GR1767.6    10111   1766.9    10147   1766.3    10164   1766.6    10174   1766.5    10208
GR1766.5    10228   1766.5    10267   1764.9    10286   1764.7    10315   1765.3    10352
GR1767.6    10374   1768.3    10401   1766.5    10440   1767.7    10441   1768.0    10550
GR1768.0    11200   1772.0    11545   1772.0    13800   1772.0    14580   1772.0    15590
GR1772.0    16400   1776.0    17255   1780.0    17505
NH     8    0.090     7425    0.130     9575    0.040     9949    0.045    10057    0.040
NH 10339    0.100    12245    0.040    13590    0.130    17275
X1  6.35       28     9949    10057     1100      950     1004
GR1784.0     1180   1780.0     1770   1776.0     3005   1776.0     7425   1776.0     9020
GR1772.4     9676   1772.4     9743   1772.8     9870   1771.8     9949   1762.9     9968
GR1760.4     9981   1760.2     9992   1760.2    10008   1760.3    10019   1760.3    10027
GR1760.4    10032   1766.1    10045   1771.8    10057   1772.4    10084   1771.6    10099
GR1771.6    10125   1772.8    10172   1774.9    10339   1775.5    12245   1776.0    13590
GR1776.0    15335   1776.0    16795   1780.0    17275
NH     6    0.090     8115    0.130     9946    0.045    10057    0.100    11980    0.040
NH 16070    0.130    18375
X1  6.40       34     9946    10057      300      270      292
GR1784.0     1215   1780.0     2265   1776.0     6430   1776.0     8115   1776.0     9640
GR1775.6     9710   1773.9     9772   1773.9     9799   1773.6     9810   1775.1     9862
GR1775.0     9946   1767.1     9964   1767.1     9983   1766.4     9991   1766.4     9995
GR1766.4    10009   1770.2    10033   1773.3    10057   1773.0    10073   1772.7    10087
GR1774.0    10128   1772.6    10143   1772.6    10183   1772.6    10224   1766.6    10239
GR1766.6    10247   1774.1    10263   1776.2    10297   1776.0    10850   1776.0    11980
GR1776.0    13470   1778.9    16070   1780.0    17095   1784.0    18375
NH     7    0.090     8865    0.100     9932    0.045    10035    0.045    10610    0.100
NH 11340    0.045    15790    0.130    18305
X1  6.57       29     9932    10035      920      500      856
GR1788.0       35   1784.0     1250   1780.0     4925   1780.0     8865   1777.8     9808
GR1777.8     9928   1778.8     9954   1781.6     9932   1770.6     9945   1769.3     9972
GR1769.3     9982   1768.5     9991   1768.5    10009   1773.3    10020   1773.3    10032
GR1781.6    10035   1773.6    10061   1777.5    10085   1779.6    10129   1779.6    10224
GR1776.8    10433   1776.0    10475   1776.0    10610   1780.0    11340   1780.0    15790
GR1780.0    17135   1784.0    17805   1788.0    18025   1790.0    18305
NH     9    0.130     4690    0.100    13425    0.130    14809    0.030    14942    0.035
NH 15039    0.045    16195    0.100    16755    0.045    21140    0.130    22860
X1  6.71       42    14942    15039      650      450      780
GR1796.0     2680   1792.0     3960   1792.0     4690   1784.0     8200   1784.0    12020
GR1784.0    13425   1780.9    14065   1780.0    14680   1777.4    14819   1777.6    14835
GR1778.5    14910   1779.0    14914   1784.8    14942   1773.0    14956   1769.3    14987
GR1769.3    14997   1769.3    15012   1771.9    15025   1784.8    15039   1781.9    15040
GR1781.9    15071   1781.9    15110   1781.3    15136   1781.2    15150   1781.2    15167
GR1780.9    15195   1782.1    15222   1782.1    15298   1781.8    15387   1779.8    15404
GR1779.8    15461   1781.6    15472   1781.0    15531   1780.0    15640   1780.0    15710
GR1782.0    16195   1782.0    16755   1784.0    21140   1784.0    21860   1788.0    22235
GR1792.0    22575   1796.0    22860
EJ


ER
EOF..
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     48
   4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   4.42        Centerline Station at 10000
  4.437        Centerline Station at 10000
  4.438        Centerline Station at 10000
  4.456        ****  Nellis Boulevard  ****
  4.456              1* Debris Loading
  4.456                Normal Bridge
  4.456        Centerline Station at 10000
  4.457        Centerline Station at 10000
   4.47        Centerline Station at 10000
   4.57        Centerline Station at 10000
   4.68        Centerline Station at 10000
  4.695        Centerline Station at 10000
  4.696        Centerline Station at 10000
  4.714        ****  Charleston Boulevard  ****
  4.714              2* Debris Loading
  4.714                Normal Bridge
  4.714        Centerline Station at 10000
  4.715        Centerline Station at 10000
   4.72        Centerline Station at 10000
   4.75        Centerline Station at 10000
   4.94        Centerline Station at 10000
   5.18        Centerline Station at 10000
  5.205        Centerline Station at 10000
  5.206        Centerline Station at 10000
  5.224        ****  Stewart Avenue  ****
  5.224             2* Debris Loading
  5.224                Normal Bridge
  5.224        Centerline Station at 10000
  5.225        Centerline Station at 10000
   5.24        Centerline Station at 10000
   5.46        Centerline Station at 10000
   5.75        Centerline Station at 10000
   5.78        Centerline Station at 10000
  5.794        Centerline Station at 10000
  5.795        Centerline Station at 10000
  5.813        ****  Bonanza Avenue  ****
  5.813             2* Debris Loading
  5.813                Normal Bridge
  5.813        Centerline Station at 10000
  5.814        Centerline Station at 10000
   5.82        Centerline Station at 10000
   5.96        Centerline Station at 10000
   6.16        Centerline Station at 10000
   6.35        Centerline Station at 10000
   6.40        Centerline Station at 10000
   6.57        Centerline Station at 10000
   6.71        Centerline Station at 15000
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - 25-YEAR (Middle Reach)                    12/87     SRM
J1               2                                        0.5        1733.9
J2    -1              -1
J3   150
NC 0.050   3.027  0.0450     0.1      0.3
QT     1    7800
NH     5  0.045    3880   0.130     8050   0.050     9935   0.045    10132   0.100
NH 15890
K1  4.42      27     9935   10132      992      992      992
GR1748.0    2045  1744.0    2335  1740.0     3060  1740.0     3515  1736.0     3675
GR1736.0    3880  1736.0    6450  1736.5     8050  1739.7     9731  1739.7     9794
GR1737.4    9813  1737.0    9935  1724.9     9956  1724.8    10000  1724.2    10052
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GR1732.5   10072   1735.4   10095   1737.5   10132   1737.6   10179   1738.0   10236
GR1736.0   10750   1735.6   11580   1736.0   12365   1740.0   13440   1744.0   14870
GR1744.0   15500   1748.0   15890
NC                    0.3      0.5
NH       5   0.045     3896   0.130     8066   0.050     9933   0.045    10067   0.100
NH   15905
X1  4.437       24     9933    10067       90       90       90
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6    10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0    13455   1744.0    14885   1744.0    15515   1748.0    15905
X1  4.438       38     9933    10067        1        1        1
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT   10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9954   1736.0   9954.1   1736.0     9956   1724.0   9956.1
GR1724.0     9984   1736.0   9994.1   1736.0     9986   1724.0   9986.1   1724.0    10014
GR1736.0  10014.1   1736.0    10016   1724.0  10016.1   1724.0    10044   1736.0  10044.1
GR1736.0    10046   1724.0  10046.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0    14885   1744.0    15515   1748.0    15905
X1  4.456       38     9933    10067       98       98       98
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT   10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1736.0   9953.1   1736.0     9957   1724.0   9957.1
GR1724.0     9983   1736.0   9983.1   1736.0     9987   1724.0   9987.1   1724.0    10013
GR1736.0  10013.1   1736.0    10017   1724.0  10017.1   1724.0    10043   1736.0  10043.1
GR1736.0    10047   1724.0  10047.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0    14885   1744.0    15515   1748.0    15905
X1  4.457       24     9933    10067        1        1        1
X2                                                                                    15
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6    10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0    13455   1744.0    14885   1744.0    15515   1748.0    15905
BT       1     6800
NH       6   0.045     3730   0.130     8295   0.050     9966   0.045    10097   0.050
NH   11360   0.100    15640
X1   4.47       41     9919    10050       60       60       60
GR1752.0     1595   1748.0     2035   1744.0     2425   1740.0     2805   1740.0     2915
GR1740.0     3730   1736.0     3745   1736.0     3840   1740.0     4015   1740.0     5405
GR1736.0     6015   1736.0     6200   1737.2     8295   1739.2     9740   1738.8     9851
GR1737.3     9875   1739.1     9903   1736.9     9919   1725.6     9942   1725.6     9963
GR1727.1     9978   1724.8     9989   1724.8    10010   1728.9    10012   1728.1    10025
GR1733.8    10029   1737.5    10040   1738.8    10050   1738.8    10072   1737.1    10078
GR1737.7    10230   1737.1    10310   1738.4    10373   1739.4    10392   1737.3    10397
GR1738.4    10434   1736.0    11360   1740.0    12920   1744.0    13910   1748.0    14620
GR1752.0    15640
NC                                0.1      0.3
VH       6   0.045     3365   0.130     8820   0.050     9470   0.065     9914   0.055
NH   10061   0.070    10493   0.100    15515
X1   4.57       43     9914    10061      350      800      562
K3     10
GR1756.0     1380   1752.0     1575   1748.0     2055   1744.0     2675   1740.0     2690
GR1740.0     2770   1744.0     2780   1744.0     3365   1740.0     4025   1740.0     5560
GR1738.0     6140   1740.0     6990   1740.0     8820   1740.0     9470   1740.5     9751
GR1738.8     9862   1737.3     9886   1739.1     9914   1736.9     9930   1725.6     9953
GR1725.6     9974   1727.1     9989   1725.0    10000   1725.8    10021   1728.9    10023
GR1728.1    10036   1733.8    10040   1737.5    10051   1738.8    10061   1738.8    10083
GR1737.1    10089   1737.7    10241   1737.1    10321   1738.4    10384   1739.4    10403
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GR1737.5   10493   1738.4   10445   1740.5   10493   1740.0   11925   1744.0   13145
GR1748.0   14000   1752.0   14575   1756.0   15515
NH       5   0.130     1580   0.045     3635   0.130     9935   0.050    10050   0.100
NH 16450
X1  4.68        28     9935    10065      350      550      540
GR1760.0    1210   1756.0     1580   1752.0     1775   1748.0     2215   1744.0     2755
GR1740.0    2770   1740.0     2855   1744.0     2865   1744.0     3635   1740.0     4355
GR1740.0    9320   1740.0     9935   1725.6     9942   1725.6     9963   1727.1     9978
GR1725.2    9989   1725.2    10010   1728.9    10012   1728.1    10025   1733.8    10029
GR1737.5   10040   1738.8    10050   1740.0    10065   1744.0    13035   1748.0    13975
GR1752.0   14925   1756.0    15500   1760.0    16450
NC                   0.3              0.5
NH       5   0.130     1659   0.045     3714   0.130     9913   0.050    10087   0.100
NH 16494
X1 4.695        23     9913    10087      100      100      100
X3      10                                                 1735     1735
GR1760.0    1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1740.0    2849   1740.0     2934   1744.0     2944   1744.0     3714   1740.0     4434
GR1740.0    9399   1740.9     9661   1740.3     9913   1733.0   9913.2   1725.6   9927.9
GR1725.6  10072.2  1733.0   10096.8  1740.5    10087   1744.0    13079   1748.0    14019
GR1752.0   14969   1756.0    15544   1760.0    16494
X1 4.696        37     9913    10087        1        1        1
BT       6    9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT9913.2  1740.5   1733.0   10086.8  1740.5   1733.0    10087   1740.5   1740.5
GR1760.0    1283   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1740.0    2849   1740.0     2934   1744.0     2944   1744.0     3714   1740.0     4434
GR1740.0    9399   1740.9     9661   1740.3     9913   1733.0   9913.2   1725.6   9927.9
GR1733.0    9930   1733.0     9931.5 1725.6     9931.6 1725.6     9976.2 1733.0     9976.3
GR1733.0   9977.7  1725.6     9977.8 1725.6    10022.4 1733.0    10022.5 1733.0    10023.9
GR1725.6   10024   1725.6    10068.6 1733.0    10068.7 1733.0    10070.1 1725.6    10070.2
GR1733.0  10086.8  1740.0    10087   1744.0    13079   1748.0    14019   1752.0    14969
GR1756.0   15544   1760.0    16494
ET              7.1                                    9661    10200
X1 4.714        37     9913    10087       98       98       98
X4       1  1744.0    10200
BT       6    9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT3913.2  1740.5   1733.0   10086.8  1740.5   1733.0    10087   1740.5   1740.5
GR1760.0    1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1740.0    2849   1740.0     2934   1744.0     2944   1744.0     3714   1740.0     4434
GR1740.0    9399   1740.9     9661   1740.3     9913   1733.0   9913.2   1725.6   9927.9
GR1733.0    9928   1733.0     9933.5 1725.6     9933.6 1725.6     9974.2 1733.0     9974.2
GR1733.0   9979.7  1725.6     9979.8 1725.6    10020.4 1733.0    10020.5 1733.0    10025.9
GR1725.6   10026   1725.6    10066.6 1733.0    10066.7 1733.0    10072.1 1725.6    10072.2
GR1733.0  10086.8  1740.0    10087   1744.0    13079   1748.0    14019   1752.0    14969
GR1756.0   15544   1760.0    16494
ET              7.1                                    9661    10200
X1 4.715        23     9913    10087        1        1        1
X3      10                                                 1740.5   1740.5
X4       1  1744.0    10200
GR1760.0    1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1740.0    2849   1740.0     2934   1744.0     2944   1744.0     3714   1740.0     4434
GR1740.0    9399   1740.9     9661   1740.3     9913   1733.0   9913.2   1725.6   9927.9
GR1725.6  10072.2  1733.0   10086.8  1740.5    10087   1744.0    13079   1748.0    14019
GR1752.0   14969   1756.0    15544   1760.0    16494
NH       8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
X1  4.72        35     9954    10096       50       50       50
X3                             8875   1744.0    10240   1744.0
GR1760.0    1420   1756.0     1810   1752.0     1995   1748.0     2455   1744.0     2935
GR1740.0    2950   1740.0     3035   1744.0     3050   1744.0     3880   1740.0     4875
GR1740.0    6390   1744.0     7295   1744.0     8875   1742.3     9833   1741.9     9954
GR1729.6    9976   1729.2     9988   1728.3     9995   1728.3    10014   1728.9    10012
GR1729.6   10028   1729.9    10055   1732.5    10062   1733.0    10079   1734.7    10082
GR1743.5   10096   1743.9    10137   1744.0    10240   1744.0    11750   1742.9    12510
GR1744.0   13400   1748.0    14650   1752.0    15375   1756.0    15925   1760.0    16450
NC                   0.1              0.3
NH       8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
```

X1 4.75				150	150	150			
X3			9875	1744.0	10240	1744.0			
NH 8	0.130	3095	0.045	3280	0.100	7641	0.045	9897	0.035
NH 10059	0.130	13550	0.040	15455	0.130	17025			
X1 4.94	32	9897	10059	750	965	965			
GR1760.0	1720	1756.0	1875	1756.0	2530	1752.0	2690	1748.0	3095
GR1744.0	3196	1744.0	3280	1744.0	7641	1746.6	9781	1746.3	9889
GR1745.6	9897	1745.6	9912	1730.5	9944	1730.6	9963	1730.6	9982
GR1730.1	10000	1731.9	10014	1734.3	10035	1747.9	10059	1748.7	10097
GR1748.7	10142	1748.0	10160	1744.0	10195	1744.0	11245	1748.0	11520
GR1744.0	13550	1748.0	14300	1752.0	15140	1752.0	15755	1756.0	15865
GR1756.0	16455	1760.0	17025						
NH 8	0.130	3500	0.045	3575	0.130	5425	0.045	9330	0.065
NH 9905	0.035	10040	0.130	17355	0.040	18900			
X1 5.18	29	9905	10040	1100	1277	1277			
GR1768.0	2100	1764.0	2520	1760.0	2820	1756.0	3255	1748.0	3500
GR1748.0	3555	1752.0	3575	1752.0	4030	1748.0	4155	1748.0	5425
GR1748.0	9330	1753.5	9803	1750.8	9826	1750.9	9875	1750.5	9905
GR1732.1	9937	1732.3	9978	1733.7	9988	1732.3	9997	1732.3	10002
GR1735.9	10017	1737.3	10029	1750.8	10040	1753.7	10071	1752.0	10200
GR1752.0	14875	1756.0	15780	1750.8	17355	1770.0	18900		
NC			0.3	0.5					
NH 9	0.040	2545	0.130	3465	0.040	3675	0.130	5910	0.045
NH 9160	0.045	9915	0.035	10085	0.130	17630	0.040	18935	
X1 5.205	24	9915	10085	150	150	150			
GR1772.0	1950	1768.0	2215	1754.0	2545	1760.0	2950	1756.0	3285
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1750.2	9915
GR1732.9	9948	1732.9	10052	1749.9	10085	1750.7	10225	1752.0	10275
GR1752.0	14055	1756.0	15285	1760.0	17630	1770.0	18935		
X1 5.206	38	9915	10085	1	1	1			
BT 4	9705	1749.5	1749.5	9915	1750.2	1748.6	10085	1749.9	1748.6
BT 10225	1750.7	1750.7							
GR1772.0	1950	1768.0	2215	1754.0	2545	1760.0	2950	1756.0	3285
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1748.6	9915
GR1732.9	9950	1748.6	9950.1	1748.6	9951.5	1732.9	9951.6	1732.9	9982.8
GR1748.6	9982.9	1748.6	9984.3	1732.9	9984.4	1732.9	10015.6	1748.6	10015.7
GR1748.6	10017.1	1732.9	10017.2	1732.9	10048.4	1748.6	10048.5	1748.6	10049.9
GR1732.9	10050	1748.6	10085	1750.7	10225	1752.0	10275	1752.0	14055
GR1756.0	15285	1760.0	17630	1770.0	18935				
X1 5.224	38	9915	10085	98	98	98			
BT 4	9705	1749.5	1749.5	9915	1750.2	1748.6	10085	1749.9	1748.6
BT 10225	1750.7	1750.7							
GR1772.0	1950	1768.0	2215	1754.0	2545	1760.0	2950	1756.0	3285
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1748.6	9915
GR1733.1	9948	1748.6	9948.1	1748.6	9953.5	1733.1	9953.6	1733.1	9980.8
GR1748.6	9980.9	1748.6	9986.3	1733.1	9986.4	1733.1	10013.6	1748.6	10013.7
GR1748.6	10019.1	1733.1	10019.2	1733.1	10046.4	1748.6	10046.4	1748.6	10051.9
GR1733.1	10052	1748.6	10085	1750.7	10225	1752.0	10275	1752.0	14055
GR1756.0	15285	1760.0	17630	1770.0	18935				
X1 5.225	24	9915	10085	1	1	1			
GR1772.0	1950	1768.0	2215	1754.0	2545	1760.0	2950	1756.0	3285
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1750.2	9915
GR1733.1	9948	1733.1	10052	1749.9	10085	1750.7	10225	1752.0	10275
GR1752.0	14055	1756.0	15285	1760.0	17630	1770.0	18935		
NH 10	0.040	2530	0.100	3430	0.040	3725	0.130	6415	0.045
NH 9310	0.045	9905	0.035	10040	0.030	10470	0.130	17670	0.040
NH 18830									
X1 5.24	32	9905	10040	60	60	60			
GR1772.0	2005	1768.0	2380	1754.0	2530	1760.0	2985	1756.0	3280
GR1752.0	3430	1748.0	3445	1748.0	3515	1752.0	3530	1752.0	3725
GR1748.0	5155	1748.0	6415	1748.0	7065	1752.0	9310	1754.5	9803
GR1751.8	9826	1751.9	9875	1751.5	9905	1733.1	9937	1733.3	9978
GR1734.7	9988	1733.3	9997	1733.3	10002	1736.9	10017	1738.3	10029
GR1751.8	10040	1754.7	10071	1752.0	10470	1752.0	13825	1756.0	15240

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GR1760.0   17670   1770.0   18830
NC                    0.1      0.3
VH       5  0.045     3110   0.130     8140   0.040     9916   0.035    10051   0.130
NH 18390
X1  5.46       36     9916   10051     1198     1198     1198
GR1776.0     2110  1772.0    2325  1768.0     2540  1764.0     2980  1760.0     3040
GR1760.0     3110  1760.0    3235  1756.0     3885  1756.0     5415  1752.0     6005
GR1752.0     6970  1756.0    8140  1756.0     9205  1757.8     9459  1756.6     9628
GR1755.6     9634  1757.1    9788  1756.2     9916  1741.7     9949  1741.5     9975
GR1741.4     9995  1741.4   10005  1743.4    10023  1748.9    10034  1748.9    10046
GR1758.0    10051  1759.7   10088  1758.8    10131  1757.5    10151  1758.6    10156
GR1758.9    10191  1756.0   11870  1756.0    13430  1760.0    14710  1760.0    16520
GR1770.0    18390
NC 0.025    0.025  0.025
VH       9  0.045     2785   0.120     4110   0.045     8635   0.080     9540   0.040
VH    9930  0.025    10071   0.130    10430   0.040    10990   0.120    17865
X1  5.75       31     9930   10071     1532     1532     1532
GR1772.0     2445  1768.0    2785  1764.0     4110  1760.0     5145  1760.0     8635
GR1764.0     9540  1764.8    9605  1763.8     9717  1762.6     9821  1762.8     9910
GR1758.6     9930  1744.8    9959  1744.8     9972  1744.8    10028  1744.8    10039
GR1745.0    10041  1763.8   10071  1765.2    10102  1765.3    10169  1765.4    10247
GR1765.8    10344  1763.6   10368  1754.3    10376  1763.8    10430  1764.0    10465
GR1764.0    10815  1760.5   10990  1760.0    14820  1764.0    15135  1764.0    16295
GR1770.0    17865
X1  5.78                             150      150      150
NC                    0.3      0.5
NH       7  0.100     3790   0.040     8475   0.100     9725   0.040     9911   0.025
NH 10091    0.040    10915   0.130    17605
X1 5.794       22     9911   10091       50      150       70
GR1776.0     1580  1772.0    2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0    5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4  1745.7   9945.6  1745.7  10054.5  1762.5  10087.6
GR1763.5    10091  1764.2   10256  1764.0    10305  1764.0    10915  1764.0    16130
GR1768.0    16295  1770.0   17605
X1 5.795       36     9911   10091        1        1        1
BT       7  9725  1764.0   1764.0     9911   1764.4   1764.4   9912.4   1766.0   1762.5
BT9983.5  1766.0  1762.5  10087.6   1756.0   1762.5    10091   1763.5   1763.5    10256
BT1764.2  1764.2
GR1776.0     1580  1772.0    2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0    5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4  1745.7   9947.6  1762.5   9947.7  1762.5   9948.9
GR1745.7   9949.0  1745.7   9982.1  1752.5   9982.2  1762.5   9983.4  1745.7   9983.5
GR1745.7  10016.6  1762.5  10016.7  1752.5  10017.9  1745.7  10018.0  1745.7  10051.1
GR1762.5  10051.2  1762.5  10052.4  1745.7  10052.5  1762.5  10087.6  1763.5    10091
GR1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130  1768.0    16295
GR1770.0    17605
X1 5.813       36     9911   10091       98       98       98
BT       7  9725  1764.0   1764.0     9911   1764.4   1764.4   9912.4   1766.0   1762.5
BT9985.5  1766.0  1762.5  10087.6   1766.0   1762.5    10091   1763.5   1763.5    10256
BT1764.2  1764.2
GR1776.0     1580  1772.0    2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0    5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4  1745.9   9945.6  1762.5   9945.7  1762.5   9950.9
GR1745.9   9951.0  1745.9   9980.1  1762.5   9980.2  1762.5   9985.4  1745.9   9985.5
GR1745.9  10014.6  1762.5  10014.7  1752.5  10019.9  1745.9  10020.0  1745.9  10049.1
GR1762.5  10049.2  1762.5  10054.4  1745.9  10054.5  1762.5  10087.6  1763.5    10091
GR1764.2    10256  1764.0    10305  1764.0    10915  1764.0    16130  1768.0    16295
GR1770.0    17605
X1 5.814       22     9911   10091        1        1        1
GR1776.0     1580  1772.0    2120  1772.0     2420  1768.0     2780  1768.0     3790
GR1764.0     4155  1760.0    5315  1750.0     6875  1762.2     8475  1764.0     9725
GR1764.4     9911  1762.5  9912.4  1745.9   9945.6  1745.9  10054.5  1762.5  10087.6
GR1763.5    10091  1764.2   10256  1764.0    10305  1764.0    10915  1764.0    16130
GR1768.0    16295  1770.0   17605
VH       7  0.130     3750   0.045     8368   0.100     9605    0.05     9913   0.032
NH 10069    0.040    10430   0.130    17560
X1  5.82       30     9913   10069       30       30       30
GR1776.0     1480  1772.0    2280  1768.0     2765  1768.0     3750  1764.0     4200
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GR1764.0	4650	1760.0	5405	1760.0	6855	1763.2	8360	1764.0	9605
GR1762.5	9753	1761.2	9821	1763.8	9857	1761.4	9883	1760.3	9897
GR1760.7	9913	1748.4	9941	1750.0	9953	1749.4	9966	1745.9	9973
GR1745.9	10027	1760.1	10069	1759.3	10083	1760.2	10112	1761.4	10148
GR1760.3	10182	1764.0	10430	1764.0	15750	1768.0	16260	1770.0	17560
NC			0.1	0.3					
NH 7	0.100	5985	0.040	7995	0.100	9841	0.050	9913	0.032
NH 10069	0.050	15015	0.130	17710					
XI 5.96	26	9913	10069	750	650	730			
GR1776.0	1875	1772.0	2370	1758.0	3700	1764.0	5985	1764.0	7995
GR1764.0	9600	1764.5	9841	1764.5	9888	1761.8	9897	1759.7	9913
GR1751.8	9941	1752.0	9953	1752.0	9966	1749.4	9973	1749.4	10027
GR1762.4	10069	1761.8	10083	1762.4	10112	1763.7	10148	1762.4	10182
GR1764.1	10289	1768.0	10455	1768.0	15015	1768.0	16445	1770.0	16960
GR1775.0	17710								
QY 1	6400								
NH 7	0.100	9698	0.040	9939	0.032	10054	0.040	13800	0.100
NH 14580	0.040	15590	0.130	17505					
K1 6.16	48	9939	10054	1056	1056	1056			
GR1780.0	1375	1776.0	2245	1772.0	3025	1768.0	9030	1769.1	9698
GR1768.1	9728	1764.7	9756	1765.1	9763	1769.1	9786	1766.9	9809
GR1766.9	9845	1766.7	9878	1761.5	9892	1767.3	9911	1763.0	9939
GR1755.1	9952	1751.8	9989	1751.8	10011	1760.7	10044	1764.9	10054
GR1764.9	10072	1765.8	10077	1755.7	10090	1764.9	10098	1765.7	10102
GR1767.6	10111	1766.9	10147	1756.3	10164	1766.6	10174	1766.5	10208
GR1766.5	10228	1766.5	10267	1764.9	10286	1764.7	10315	1765.3	10352
GR1767.6	10374	1768.3	10401	1756.5	10440	1767.7	10441	1766.0	10550
GR1768.0	11200	1772.0	11545	1772.0	13800	1772.0	14580	1772.0	15590
GR1772.0	16400	1776.0	17255	1780.0	17505				
NH 8	0.090	7425	0.130	9676	0.040	9949	0.045	10057	0.040
NH 10339	0.100	12245	0.040	13590	0.130	17275			
K1 6.35	28	9949	10057	1100	950	1004			
GR1784.0	1180	1780.0	1770	1776.0	3005	1776.0	7425	1776.0	9020
GR1772.4	9676	1772.4	9743	1772.8	9870	1771.8	9949	1762.9	9968
GR1760.4	9981	1760.2	9992	1760.2	10008	1760.3	10019	1760.3	10027
GR1760.4	10032	1766.1	10045	1771.8	10057	1772.4	10084	1771.6	10099
GR1771.6	10125	1772.8	10172	1774.9	10339	1775.5	12245	1776.0	13590
GR1776.0	15835	1776.0	16755	1780.0	17275				
NH 6	0.090	8115	0.130	9946	0.045	10057	0.100	11980	0.040
NH 16070	0.130	18375							
K1 6.40	34	9946	10057	300	270	292			
K3			9862	1775.1	10128	1774.0			
GR1784.0	1215	1780.0	2265	1776.0	6430	1776.0	8115	1776.0	9640
GR1775.6	9710	1773.9	9772	1773.9	9799	1773.6	9810	1775.1	9862
GR1775.0	9946	1767.1	9964	1767.1	9983	1766.4	9991	1766.4	9995
GR1766.4	10009	1770.2	10033	1773.3	10057	1773.0	10073	1772.7	10087
GR1774.0	10128	1772.6	10143	1772.6	10183	1772.6	10224	1766.6	10239
GR1766.6	10247	1774.1	10268	1776.2	10297	1776.0	10850	1776.0	11980
GR1776.0	13470	1778.9	16070	1780.0	17095	1784.0	18375		
NH 7	0.090	8865	0.100	9932	0.045	10035	0.045	10610	0.100
NH 11340	0.045	15790	0.130	18305					
K1 6.57	29	9932	10035	920	500	856			
K3 10									
GR1788.0	35	1784.0	1250	1780.0	4925	1780.0	8865	1777.8	9808
GR1777.8	9828	1778.8	9854	1781.6	9932	1770.6	9945	1769.3	9972
GR1769.3	9982	1768.5	9991	1768.5	10009	1773.3	10020	1773.3	10032
GR1781.6	10035	1779.6	10061	1777.5	10085	1779.6	10129	1779.6	10224
GR1776.8	10433	1776.0	10475	1776.0	10610	1780.0	11340	1780.0	15790
GR1780.0	17135	1784.0	17805	1788.0	18025	1790.0	18305		
NH 9	0.130	4690	0.100	13425	0.130	14809	0.030	14942	0.035
NH 15039	0.045	16195	0.100	16755	0.045	21140	0.130	22860	
K1 6.71	42	14942	15039	650	450	780			
K3			14942	1784.8	15039	1784.8			
GR1796.0	2680	1792.0	3960	1792.0	4690	1784.0	8200	1784.0	12020
GR1784.0	13425	1780.0	14065	1780.0	14680	1777.4	14809	1777.6	14835
GR1778.5	14910	1779.0	14914	1784.8	14942	1773.0	14956	1769.3	14987
GR1769.3	14997	1769.3	15012	1771.9	15025	1784.8	15039	1781.9	15040
GR1781.9	15071	1781.0	15110	1781.3	15136	1781.2	15150	1781.2	15167

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GR1790.0   15195   1782.1   15222   1782.1   15298   1781.8   15387   1779.8   15404
GR1779.8   15461   1781.6   15472   1781.0   15531   1780.0   15640   1780.0   15710
GR1782.0   16195   1782.0   16755   1784.0   21140   1784.0   21960   1788.0   22235
GR1792.0   22575   1796.0   22960
EJ


ER
EOF..
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     49
   4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   4.42        Centerline Station at 10000
  4.437        Centerline Station at 10000
  4.438        Centerline Station at 10000
  4.456        ****  Nellis Boulevard  ****
  4.456             1* Debris Loading
  4.456               Normal Bridge
  4.456        Centerline Station at 10000
  4.457        Centerline Station at 10000
   4.47        Centerline Station at 10000
   4.57        Centerline Station at 10000
   4.68        Centerline Station at 10000
  4.695        Centerline Station at 10000
  4.696        Centerline Station at 10000
  4.714        ****  Charleston Boulevard  ****
  4.714             2* Debris Loading
  4.714               Normal Bridge
  4.714        Centerline Station at 10000
  4.715        Centerline Station at 10000
   4.72        Centerline Station at 10000
   4.75        Centerline Station at 10000
   4.94        Centerline Station at 10000
   5.18        Centerline Station at 10000
  5.205        Centerline Station at 10000
  5.206        Centerline Station at 10000
  5.224        ****  Stewart Avenue  ****
  5.224             2* Debris Loading
  5.224               Normal Bridge
  5.224        Centerline Station at 10000
  5.225        Centerline Station at 10000
   5.24        Centerline Station at 10000
   5.46        Centerline Station at 10000
   5.75        Centerline Station at 10000
   5.78        Centerline Station at 10000
  5.794        Centerline Station at 10000
  5.795        Centerline Station at 10000
  5.813        ****  Bonanza Avenue  ****
  5.813             2* Debris Loading
  5.813               Normal Bridge
  5.813        Centerline Station at 10000
  5.814        Centerline Station at 10000
   5.82        Centerline Station at 10000
   5.96        Centerline Station at 10000
   6.16        Centerline Station at 10000
   6.35        Centerline Station at 10000
   6.35        Confluence of Washington Ave Channel
   6.40        Centerline Station at 10000
   6.57        Centerline Station at 10000
   6.71        Centerline Station at 15000
T1         CCRFCD/COE OVERFLOW STUDY
T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3         LAS VEGAS WASH - 100-YEAR (Middle Reach)                          10/87      SRM
J1              2                                                          1738.4
J2     -1              -1
J3    150
NC  0.050    0.027   0.0450      0.1      0.3
NT      2    24000    84000
NH      5    0.045     3880    0.130     3050    0.050     9935    0.045    10132    0.100
NH  15890
X1   4.42       27     9935    10132      992      992      992
GR1748.0     2045   1744.0     2335   1740.0     3060   1740.0     3515   1736.0     3675
GR1736.0     3880   1736.0     6450   1736.5     8050   1739.7     9731   1739.7     9794
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GR1737.4	9813	1737.0	9955	1724.9	9956	1724.8	10070	1724.2	10052
GR1732.3	10072	1735.4	10055	1737.6	10132	1737.6	10179	1738.0	10236
GR1736.0	10750	1735.6	11580	1736.0	12365	1740.0	13440	1744.0	14870
GR1744.0	15500	1748.0	15890						
NC			0.3	0.5					
NH 5	0.045	3896	0.130	8066	0.050	9933	0.045	10067	0.100
NH 15905									
X1 4.437	24	9933	10067	90	90	90			
GR1748.8	2061	1744.0	2351	1740.0	3076	1740.0	3531	1736.0	3691
GR1736.0	3896	1736.0	6466	1736.5	8066	1739.7	9747	1735.5	9827
GR1736.0	9933	1724.0	9953	1724.0	10047	1736.0	10067	1737.6	10147
GR1737.6	10194	1738.0	10251	1736.0	10765	1735.6	11595	1736.0	12380
GR1740.0	13455	1744.0	14885	1744.0	15515	1748.0	15905		
X1 4.438	38	9933	10067	1	1	1			
BT 7	9747	1739.7	1739.7	9827	1737.5	1735.5	9933	1737.5	1736.0
BT 10067	1737.5	1736.0	10147	1737.6	1737.6	10194	1737.6	1737.6	10251
BT1738.0	1738.0								
GR1748.0	2061	1744.0	2351	1740.0	3076	1740.0	3531	1736.0	3691
GR1736.0	3896	1736.0	6466	1736.5	8066	1739.7	9747	1735.5	9827
GR1736.0	9933	1724.0	9954	1736.0	9954.1	1736.0	9956	1724.0	9956.1
GR1724.0	9934	1736.0	9984.1	1736.0	9986	1724.0	9986.1	1724.0	10014
GR1736.0	10014.1	1736.0	10016	1724.0	10016.1	1724.0	10044	1736.0	10044.1
GR1736.0	10046	1724.0	10046.1	1736.0	10067	1737.6	10147	1737.6	10194
GR1738.0	10251	1736.0	10765	1735.6	11595	1736.0	12380	1740.0	13455
GR1744.0	14885	1744.0	15515	1748.0	15905				
X1 4.456	38	9933	10067	98	98	98			
BT 7	9747	1739.7	1739.7	9827	1737.5	1735.5	9933	1737.5	1736.0
BT 10067	1737.5	1736.0	10147	1737.6	1737.6	10194	1737.6	1737.6	10251
BT1738.0	1738.0								
GR1748.0	2061	1744.0	2351	1740.0	3076	1740.0	3531	1736.0	3691
GR1736.0	3896	1736.0	6466	1736.5	8066	1739.7	9747	1735.5	9827
GR1736.0	9933	1724.0	9953	1736.0	9953.1	1736.0	9957	1724.0	9957.1
GR1724.0	9933	1736.0	9983.1	1736.0	9987	1724.0	9987.1	1724.0	10013
GR1736.0	10013.1	1736.0	10017	1724.0	10017.1	1724.0	10043	1736.0	10043.1
GR1736.0	10047	1724.0	10047.1	1736.0	10067	1737.6	10147	1737.6	10194
GR1738.0	10251	1736.0	10765	1735.6	11595	1736.0	12380	1740.0	13455
GR1744.0	14885	1744.0	15515	1748.0	15905				
X1 4.457	24	9933	10067	1	1	1			
X2									15
GR1748.0	2061	1744.0	2351	1740.0	3076	1740.0	3531	1736.0	3691
GR1736.0	3896	1736.0	6466	1736.5	8066	1739.7	9747	1735.5	9827
GR1736.0	9933	1724.0	9953	1724.0	10047	1736.0	10067	1737.6	10147
GR1737.6	10194	1738.0	10251	1736.0	10765	1735.6	11595	1736.0	12380
GR1740.0	13455	1744.0	14885	1744.0	15515	1748.0	15915		
BT 2	24000	84000							
NH 6	0.045	3730	0.130	8295	0.050	9966	0.045	10097	0.050
NH 11360	0.100	15640							
X1 4.47	41	9919	10050	60	60	60			
GR1752.0	1595	1748.0	2035	1744.0	2425	1740.0	2805	1740.0	2915
GR1740.0	3730	1736.0	3745	1736.0	3840	1740.0	4015	1740.0	5405
GR1736.0	6015	1736.0	6200	1737.2	8295	1739.2	9740	1738.8	9851
GR1737.3	9875	1739.1	9903	1736.9	9919	1725.6	9942	1725.6	9963
GR1727.1	9978	1724.8	9989	1724.8	10010	1728.9	10012	1728.1	10025
GR1733.8	10029	1737.5	10040	1738.8	10050	1738.8	10072	1737.1	10078
GR1737.7	10230	1737.1	10310	1738.4	10373	1739.4	10392	1737.3	10397
GR1738.4	10434	1736.0	11360	1740.0	12920	1744.0	13910	1748.0	14620
GR1752.8	15640								
NC			0.1	0.3					
NH 6	0.045	3365	0.130	8820	0.050	9470	0.065	9914	0.055
NH 10061	0.070	10493	0.100	15515					
X1 4.57	43	9914	10061	350	800	562			
GR1756.0	1380	1752.0	1575	1748.0	2055	1744.0	2675	1740.0	2690
GR1740.0	2770	1744.0	2780	1744.0	3365	1740.0	4025	1740.0	5560
GR1738.0	6140	1740.0	6590	1740.0	8820	1740.0	9470	1740.5	9751
GR1738.8	9862	1737.3	9886	1739.1	9914	1736.9	9938	1725.6	9953
GR1725.6	9974	1727.1	9989	1725.0	10000	1725.8	10021	1728.9	10023
GR1728.1	10036	1733.8	10040	1737.5	10051	1738.8	10061	1738.8	10083
GR1737.1	10089	1737.7	10241	1737.1	10321	1738.4	10384	1739.4	10403

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GR1737.3   10408   1734.4   10445   1740.5   10493   1740.0   11525   1744.0   13145
GR1748.0   14000   1752.0   14575   1756.0   15515
NH     5   0.130     1580   0.045     3635   0.130     9935   0.050     10050   0.100
NH 16450
K1  4.68       26     9935    10065      350      550      540
GR1760.0     1210   1756.0     1580   1752.0     1775   1748.0     2215   1744.0     2755
GR1744.0     2865   1744.0     3635   1740.0     4355   1740.0     9320   1740.0     9935
GR1725.6     9942   1725.6     9963   1727.1     9978   1725.2     9989   1725.2    10010
GR1728.9    10012   1728.1    10025   1733.8    10029   1737.5    10040   1738.8    10050
GR1740.0    10055   1744.0    13035   1748.0    13975   1752.0    14925   1756.0    15500
GR1760.0    16450
NC                          0.3     0.5
NH     5   0.130     1659   0.045     3714   0.130     9913   0.050     10087   0.100
NH 16494
K1 4.695       21     9913    10087      100      100      100
GR1760.0     1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0     2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3     9913   1733.0   9913.2   1725.6   9927.9   1725.6  10072.2   1733.0  10086.8
GR1740.5    10087   1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544
GR1760.0    16494
ET             4.1                    11800
K1  4.696      35     9913    10087        1        1        1
BT     6     9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT9913.2   1740.5   1733.0  10086.8   1740.5   1733.0    10087   1740.5   1740.5
GR1760.0     1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0     2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3     9913   1733.0   9913.2   1725.6   9927.9   1733.0     9930   1733.0   9931.5
GR1725.6   9931.6   1725.6   9976.2   1733.0   9976.3   1733.0   9977.7   1725.6   9977.8
GR1725.6  10022.4   1733.0  10022.5   1733.0  10023.9   1725.6    10024   1725.6  10068.6
GR1733.0  10068.7   1733.0  10070.1   1725.6  10070.2   1733.0  10086.8   1740.0    10087
GR1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544   1760.0    16494
ET             4.1                    11800
K1 4.714       35     9913    10087       98       98       98
BT     6     9661   1740.9   1740.9     9913   1740.3   1740.3   9913.2   1740.5   1733.0
BT9913.2   1740.5   1733.0  10086.8   1740.5   1733.0    10087   1740.5   1740.5
GR1760.0     1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0     2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3     9913   1733.0   9913.2   1725.6   9927.9   1733.0     9928   1733.0   9933.5
GR1725.6   9933.6   1725.6   9974.2   1733.0   9974.2   1733.0   9979.7   1725.6   9979.8
GR1725.6  10020.4   1733.0  10020.5   1733.0  10025.9   1725.6    10026   1725.6  10066.6
GR1733.0  10066.7   1733.0  10072.1   1725.6  10072.2   1733.0  10086.8   1740.0    10087
GR1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544   1760.0    16494
ET             4.1                    11800
K1 4.715       21     9913    10087        1        1        1
GR1760.0     1289   1756.0     1659   1752.0     1854   1748.0     2294   1744.0     2834
GR1744.0     2944   1744.0     3714   1740.0     4434   1740.0     9399   1740.9     9661
GR1740.3     9913   1733.0   9913.2   1725.6   9927.9   1725.6  10072.2   1733.0  10086.8
GR1740.5    10087   1744.0    13079   1748.0    14019   1752.0    14969   1756.0    15544
GR1760.0    16494
NH     8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
ET             4.1                    11800
K1  4.72       33     9954    10096       50       50       50
GR1760.0     1420   1756.0     1810   1752.0     1995   1748.0     2455   1744.0     2935
GR1744.0     3050   1744.0     3880   1740.0     4875   1740.0     6390   1744.0     7295
GR1744.0     8875   1742.3     9833   1741.9     9954   1729.6     9976   1729.2     9988
GR1728.3     9935   1728.3    10004   1728.9    10012   1729.6    10028   1729.9    10055
GR1732.6    10052   1733.0    10079   1734.7    10082   1743.5    10096   1743.9    10137
GR1744.0    10240   1744.0    11760   1742.9    12510   1744.0    13400   1748.0    14690
GR1752.0    15375   1756.0    15925   1760.0    16450
NC                          0.1     0.3
NH     8   0.130     1810   0.045     3880   0.130     8875   0.040     9954   0.035
NH 10096   0.100    14690   0.045    15375   0.130    16450
K1  4.75                              150      150      150
NH     8   0.130     3095   0.045     3280   0.100     7641   0.045     9897   0.035
NH 10059   0.130    13550   0.040    16455   0.130    17025
ET             4.1                    10097
K1  4.94       32     9897    10059      750      965      965
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GR1760.0    1720  1756.0   1875  1756.0   2530  1752.0   2690  1746.0   3095
GR1744.0    3196  1744.0   3280  1744.0   7641  1746.6   9731  1746.3   9889
GR1745.6    9897  1745.6   9912  1730.5   9944  1730.6   9963  1730.6   9982
GR1730.1   10000  1731.9  10014  1734.3  10035  1747.9  10059  1748.7  10097
GR1748.7   10142  1748.0  10160  1744.0  10195  1744.0  11245  1748.0  11520
GR1744.0   13550  1748.0  14300  1752.0  15140  1752.0  15755  1756.0  15865
GR1756.0   16455  1760.0  17025
NH     6   0.130   5425   0.045   9330   0.065   9905   0.035  10040   0.130
NH 17355   0.040  18900
X1  5.18      27   9905  10040   1100   1277   1277
GR1768.0    2100  1764.0   2520  1760.0   2820  1756.0   3255  1752.0   3575
GR1752.0    4030  1748.0   4155  1748.0   5425  1748.0   9330  1753.5   9803
GR1750.8    9826  1750.9   9875  1750.5   9905  1732.1   9937  1732.3   9978
GR1733.7    9988  1732.3   9997  1732.3  10002  1735.9  10017  1737.3  10029
GR1750.8   10040  1753.7  10071  1752.0  10200  1752.0  14875  1756.0  15780
GR1760.0   17355  1770.0  18900
NC                 0.3     0.5
NH     9   0.040   2545   0.130   3465   0.040   3675   0.130   5910   0.045
NH  9160   0.045   9915   0.035  10085   0.130  17630   0.040  18935
X1 5.205      22   9915  10085    150    150    150
GR1772.0    1950  1768.0   2215  1754.0   2545  1760.0   2950  1756.0   3285
GR1752.0    3465  1752.0   3570  1752.0   3675  1748.0   4320  1748.0   5910
GR1748.0    9160  1749.5   9705  1750.2   9915  1732.9   9948  1732.9  10052
GR1749.9   10085  1750.7  10225  1752.0  10275  1752.0  14055  1756.0  15285
GR1760.0   17630  1770.0  18935
X1 5.206      36   9915  10085      1      1      1
BT     4   9705  1749.5  1749.5   9915  1750.2  1748.6  10085  1749.9  1748.6
BT 10225  1750.7  1750.7
GR1772.0    1950  1768.0   2215  1754.0   2545  1760.0   2950  1756.0   3285
GR1752.0    3465  1752.0   3570  1752.0   3675  1748.0   4320  1748.0   5910
GR1748.0    9160  1749.5   9705  1748.6   9915  1732.9   9950  1748.6  9950.1
GR1748.6  9951.5  1732.9  9951.6  1732.9  9982.8  1748.6  9982.9  1748.6  9984.3
GR1732.9  9984.4  1732.9 10015.6  1748.6 10015.7  1748.6 10017.1  1732.9 10017.2
GR1732.9 10048.4  1748.6 10048.5  1748.6 10049.9  1732.9  10050  1748.6  10085
GR1750.7   10225  1752.0  10275  1752.0  14055  1756.0  15285  1760.0  17630
GR1770.0   18935
X1 5.224      36   9915  10085     98     98     98
BT     4   9705  1749.5  1749.5   9915  1750.2  1748.6  10085  1749.9  1748.6
BT 10225  1750.7  1750.7
GR1772.0    1950  1768.0   2215  1764.0   2545  1760.0   2950  1756.0   3285
GR1752.0    3465  1752.0   3570  1752.0   3675  1748.0   4320  1748.0   5910
GR1748.0    9160  1749.5   9705  1748.6   9915  1733.1   9948  1748.6  9948.1
GR1748.6  9953.5  1733.1  9953.6  1733.1  9980.8  1748.6  9980.9  1748.6  9986.3
GR1733.1  9986.4  1733.1 10013.6  1748.6 10013.7  1748.6 10019.1  1733.1 10019.2
GR  T3q  PRELIM,22,88,22,88,2 B3q  PRIMARY,24,18
EOF..
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     48
   4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
   4.42        Centerline Station at 10000
  4.437        Centerline Station at 10000
  4.438        Centerline Station at 10000
  4.456        ****  Nellis Boulevard  ****
  4.456             1* Debris Loading
  4.456               Normal Bridge
  4.456        Centerline Station at 10000
  4.457        Centerline Station at 10000
   4.47        Centerline Station at 10000
   4.57        Centerline Station at 10000
   4.68        Centerline Station at 10000
  4.695        Centerline Station at 10000
  4.696        Centerline Station at 10000
  4.714        ****  Charleston Boulevard  ****
  4.714             2* Debris Loading
  4.714               Normal Bridge
  4.714        Centerline Station at 10000
  4.715        Centerline Station at 10000
   4.72        Centerline Station at 10000
   4.75        Centerline Station at 10000
   4.94        Centerline Station at 10000
   5.18        Centerline Station at 10000
  5.205        Centerline Station at 10000
  5.206        Centerline Station at 10000
  5.224        ****  Stewart Avenue  ****
  5.224             2* Debris Loading
  5.224               Normal Bridge
  5.224        Centerline Station at 10000
  5.225        Centerline Station at 10000
   5.24        Centerline Station at 10000
   5.46        Centerline Station at 10000
   5.75        Centerline Station at 10000
   5.78        Centerline Station at 10000
  5.794        Centerline Station at 10000
  5.795        Centerline Station at 10000
  5.813        ****  Bonanza Avenue  ****
  5.813             2* Debris Loading
  5.813               Normal Bridge
  5.813        Centerline Station at 10000
  5.814        Centerline Station at 10000
   5.82        Centerline Station at 10000
   5.96        Centerline Station at 10000
   6.16        Centerline Station at 10000
   6.35        Centerline Station at 10000
   6.40        Centerline Station at 10000
   6.57        Centerline Station at 10000
   6.71        Centerline Station at 15000
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 25-YEAR (Middle Reach)                    12/87     SRM
J1                2                                      0.5          1733.9
J2     -1                -1
J3    150
NC  0.050    0.027   0.0450      0.1       0.3
BT      1     7800
NH      5    0.045     3880    0.130      8050    0.050     9935    0.045    10132    0.100
NH  15890
K1    4.42       27     9935    10132       992      992      992
GR1748.0       2045  1744.0     2335   1740.0     3060  1740.0     3515  1736.0     3675
GR1736.0       3880  1736.0     6450   1736.5     8050  1739.7     9731  1739.7     9794
GR1737.4       9813  1737.0     9935   1724.9     9956  1724.8    10000  1724.2    10052
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GR1732.5   19972   1735.4   10095   1737.6   10132   1737.6   10179   1738.0   10236
GR1736.0   10750   1735.6   11580   1736.0   12365   1740.0   13440   1744.0   14870
GR1744.0   15500   1748.0   15890
NC                    0.3              0.5
NH       5   0.045     3896   0.130     8066   0.050     9933   0.045    10067   0.100
NH 15905
K1 4.437        24     9933    10067       90       90       90
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6    10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0    13455   1744.0    14885   1744.0    15515   1748.0    15905
K1 4.438        38     9533    10067        1        1        1
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT 10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9954   1736.0   9954.1   1736.0     9956   1724.0   9956.1
GR1724.0     9984   1736.0   9984.1   1736.0     9986   1724.0   9986.1   1724.0    10014
GR1736.0  10014.1   1736.0    10016   1724.0  10016.1   1724.0    10044   1736.0  10044.1
GR1736.0    10046   1724.0  10046.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0    14885   1744.0    15515   1748.0    15905
K1 4.456        38     9933    10067       98       98       98
BT       7     9747   1739.7   1739.7     9827   1737.5   1735.5     9933   1737.5   1736.0
BT 10067   1737.5   1736.0    10147   1737.6   1737.6    10194   1737.6   1737.6    10251
BT1738.0   1738.0
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1736.0   9953.1   1736.0     9957   1724.0   9957.1
GR1724.0     9983   1736.0   9983.1   1736.0     9987   1724.0   9987.1   1724.0    10013
GR1736.0  10013.1   1736.0    10017   1724.0  10017.1   1724.0    10043   1736.0  10043.1
GR1736.0    10047   1724.0  10047.1   1736.0    10067   1737.6    10147   1737.6    10194
GR1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380   1740.0    13455
GR1744.0    14835   1744.0    15515   1748.0    15905
K1 4.457        24     9933    10067        1        1        1
K2                                                                          15
GR1748.0     2061   1744.0     2351   1740.0     3076   1740.0     3531   1736.0     3691
GR1736.0     3896   1736.0     6466   1736.5     8066   1739.7     9747   1735.5     9827
GR1736.0     9933   1724.0     9953   1724.0    10047   1736.0    10067   1737.6    10147
GR1737.6    10194   1738.0    10251   1736.0    10765   1735.6    11595   1736.0    12380
GR1740.0    13455   1744.0    14885   1744.0    15515   1748.0    15905
QT       1     6800
NH       6   0.045     3730   0.130     8295   0.050     9966   0.045    10097   0.050
NH 11360   0.100    15640
K1  4.47       41     9919    10050       60       60       60
GR1752.0     1595   1748.0     2035   1744.0     2425   1740.0     2805   1740.0     2915
GR1740.0     3730   1736.0     3745   1736.0     3840   1740.0     4015   1740.0     5405
GR1736.0     6015   1736.0     6200   1737.2     8295   1739.2     9740   1738.8     9851
GR1737.3     9875   1739.1     9903   1736.9     9919   1725.6     9942   1725.6     9963
GR1727.1     9978   1724.8     9989   1724.8    10010   1728.9    10012   1728.1    10025
GR1733.8    10029   1737.5    10040   1738.8    10050   1738.8    10072   1737.1    10078
GR1737.7    10230   1737.1    10310   1738.4    10373   1739.4    10392   1737.3    10397
GR1738.4    10434   1736.0    11360   1740.0    12920   1744.0    13910   1748.0    14620
GR1752.0    15640
NC                    0.1              0.3
NH       6   0.045     3365   0.130     8820   0.050     9470   0.065     9914   0.055
NH 10061   0.070    10493   0.100    15515
K1  4.57       43     9914    10061      350      800      562
K3      10
GR1756.0     1380   1752.0     1575   1748.0     2055   1744.0     2675   1740.0     2690
GR1740.0     2770   1744.0     2780   1744.0     3365   1740.0     4025   1740.0     5560
GR1738.0     6140   1740.0     6990   1740.0     8820   1740.0     9470   1740.5     9751
GR1738.8     9862   1737.3     9886   1739.1     9914   1736.9     9930   1725.6     9953
GR1725.6     9974   1727.1     9989   1725.0    10000   1725.8    10021   1728.9    10023
GR1728.1    10036   1733.8    10040   1737.5    10051   1738.8    10061   1738.8    10083
GR1737.1    10039   1737.7    10241   1737.1    10321   1738.4    10384   1739.4    10403
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GR1737.3  10413  1738.4  10445  1740.5  10493  1740.0  11525  1744.0  13145
GR1748.0  14000  1752.0  14575  1756.0  15515
VH      5  0.130    1590  0.045    3635  0.130    9935  0.050   10050  0.100
VH 16450
K1   4.68      28    9935   10065     350     550     540
GR1760.0    1210  1756.0    1580  1752.0    1775  1748.0    2215  1744.0    2755
GR1740.0    2770  1740.0    2855  1744.3    2865  1744.0    3635  1740.0    4355
GR1740.0    9320  1740.0    9935  1725.6    9942  1725.6    9963  1727.1    9978
GR1725.2    9989  1725.2   10010  1728.9   10012  1728.1   10025  1733.8   10029
GR1737.5   10043  1738.8   10050  1740.0   10065  1744.0   13035  1748.0   13975
GR1752.0   14925  1756.0   15500  1760.0   16450
VC                  0.3           0.5
VH      5  0.130    1659  0.045    3714  0.130    9913  0.050   10087  0.100
VH 16494
K1  4.695      23    9913   10087     100     100     100
K3     10                                          1735    1735
GR1760.0    1289  1756.0    1659  1752.0    1854  1748.0    2294  1744.0    2834
GR1740.0    2849  1740.0    2934  1744.0    2944  1744.0    3714  1740.0    4434
GR1740.0    9399  1740.9    9661  1740.3    9913  1733.0  9913.2  1725.6  9927.9
GR1725.6  10072.2 1733.0  10086.8 1740.5   10087  1744.0   13079  1748.0   14019
GR1752.0   14969  1756.0   15544  1760.0   16494
K1  4.696      37    9913   10087       1       1       1
BT      6    9661  1740.9  1740.9    9913  1740.3  1740.3  9913.2  1740.5  1733.0
BT9913.2  1740.5  1733.0  10086.8 1740.5  1733.0   10087  1740.5  1740.5
GR1760.0    1289  1756.0    1659  1752.0    1854  1748.0    2294  1744.0    2834
GR1740.0    2849  1740.0    2934  1744.0    2944  1744.0    3714  1740.0    4434
GR1740.0    9399  1740.9    9661  1740.3    9913  1733.0  9913.2  1725.6  9927.9
GR1733.0    9930  1733.0  9931.5  1725.6  9931.6  1725.6  9976.2  1733.0  9976.3
GR1733.0  9977.7  1725.6  9977.8  1725.6 10022.4  1733.0 10022.5  1733.0 10023.9
GR1725.6   10024  1725.6 10068.6  1733.0 10068.7  1733.0 10070.1  1725.6 10070.2
GR1733.0 10086.8  1740.0   10087  1744.0   13079  1748.0   14019  1752.0   14969
GR1756.0   15544  1760.0   16494
ST          7.1                                 9661   10200
K1  4.714      37    9913   10087      98      98      98
K4      1  1744.0   10200
BT      6    9661  1740.9  1740.9    9913  1740.3  1740.3  9913.2  1740.5  1733.0
BT9913.2  1740.5  1733.0  10086.8 1740.5  1733.0   10087  1740.5  1740.5
GR1760.0    1289  1756.0    1659  1752.0    1854  1748.0    2294  1744.0    2834
GR1740.0    2849  1740.0    2934  1744.0    2944  1744.0    3714  1740.0    4434
GR1740.0    9399  1740.9    9661  1740.3    9913  1733.0  9913.2  1725.6  9927.9
GR1733.0    9928  1733.0  9933.5  1725.6  9933.6  1725.6  9974.2  1733.0  9974.2
GR1733.0  9979.7  1725.6  9979.8  1725.6 10020.4  1733.0 10020.5  1733.0 10025.9
GR1725.6   10026  1725.6 10066.6  1733.0 10066.7  1733.0 10072.1  1725.6 10072.2
GR1733.0 10086.8  1740.0   10087  1744.0   13079  1748.0   14019  1752.0   14969
GR1756.0   15544  1760.0   16494
ST          7.1                                 9661   10200
K1  4.715      23    9913   10087       1       1       1
K3     10                                        1740.5  1740.5
K4      1  1744.0   10200
GR1760.0    1289  1756.0    1659  1752.0    1854  1748.0    2294  1744.0    2834
GR1740.0    2849  1740.0    2934  1744.0    2944  1744.0    3714  1740.0    4434
GR1740.0    9399  1740.9    9661  1740.3    9913  1733.0  9913.2  1725.6  9927.9
GR1725.6 10072.2  1733.0 10086.8  1740.5   10087  1744.0   13079  1748.0   14019
GR1752.0   14969  1756.0   15544  1760.0   16494
VH      8  0.130    1810  0.045    3880  0.130    8875  0.040    9954  0.035
VH 10096  0.100   14690  0.045   15375  0.130   16450
K1   4.72      35    9954   10096      59      58      58
K3                         8875  1744.0   10240  1744.0
GR1760.0    1420  1756.0    1810  1752.0    1995  1748.0    2455  1744.0    2935
GR1740.0    2950  1740.0    3035  1744.0    3050  1744.0    3880  1740.0    4875
GR1740.0    6390  1744.0    7295  1744.0    8875  1742.3    9833  1741.9    9954
GR1729.6    9976  1729.2    9988  1728.3    9995  1728.3   10004  1728.9   10012
GR1729.6   10028  1729.9   10055  1732.6   10062  1733.0   10079  1734.7   10082
GR1743.5   10096  1743.9   10137  1744.0   10240  1744.0   11760  1742.9   12510
GR1744.0   13400  1748.9   14690  1752.0   15375  1756.0   15925  1760.0   16450
VC                  0.1           0.3
VH      8  0.130    1810  0.045    3880  0.130    8875  0.040    9954  0.035
VH 10096  0.100   14690  0.045   15375  0.130   16450
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K1  4.75                                150       150       150
K3                                     9875    1744.0     10240    1744.0
NH        8    0.130       3095     0.045      3280     0.100      7641    0.045      9897    0.035
NH    10059    0.130      13550     0.040     16455     0.130     17025
K1   4.94         32       9897     10059       750       965       965
GR1760.0       1720     1756.0      1875    1756.0      2530    1752.0      2690    1748.0      3095
GR1744.0       3196     1744.0      3280    1744.0      7641    1746.6      9781    1746.3      9889
GR1745.6       9897     1745.6      9912    1730.5      9944    1730.6      9963    1730.6      9982
GR1730.1      10000     1731.9     10014    1734.3     10035    1747.9     10059    1748.7     10097
GR1748.7      10142     1748.0     10160    1744.0     10195    1744.0     11245    1748.0     11520
GR1744.0      13550     1748.0     14300    1752.0     15140    1752.0     15755    1756.0     15865
GR1756.0      16455     1760.0     17025
NH        8    0.130        3500    0.045      3575     0.130      5425    0.045      9330    0.065
NH     9905    0.035       10040    0.130     17355     0.040     18900
K1   5.18         29       9905     10040       1100      1277      1277
GR1768.0       2100     1764.0      2520    1760.0      2820    1756.0      3255    1748.0      3500
GR1748.0       3555     1752.0      3575    1752.0      4030    1748.0      4155    1748.0      5425
GR1746.0       9330     1753.5      9803    1750.3      9826    1750.9      9875    1750.5      9905
GR1732.1       9937     1732.3      9978    1733.7      9988    1732.3      9997    1732.3     10002
GR1735.9      10017     1737.3     10029    1750.8     10040    1753.7     10071    1752.0     10200
GR1752.0      14875     1756.0     15780    1760.0     17355    1770.0     18900
NC                                    0.3       0.5
NH        9    0.040        2545    0.130      3465     0.040      3675    0.130      5910    0.045
NH     9160    0.045        9915    0.035     10085     0.130     17630    0.040     18935
K1  5.205         24       9915     10085       150       150       150
GR1772.0       1950     1768.0      2215    1764.0      2545    1760.0      2950    1756.0      3285
GR1752.0       3465     1748.0      3490    1748.0      3555    1752.0      3570    1752.0      3675
GR1748.0       4320     1748.0      5910    1748.0      9160    1749.5      9705    1750.2      9915
GR1732.9       9948     1732.9     10052    1749.9     10085    1750.7     10225    1752.0     10275
GR1752.0      14055     1756.0     15285    1760.0     17630    1770.0     18935
K1  5.206         38       9915     10085         1         1         1
BT        4    9705     1749.5     1749.5     9915    1750.2    1748.6     10085    1749.9    1748.6
BT    10225    1750.7     1750.7
GR1772.0       1950     1768.0      2215    1764.0      2545    1760.0      2950    1756.0      3285
GR1752.0       3465     1748.0      3490    1748.0      3555    1752.0      3570    1752.0      3675
GR1748.0       4320     1748.0      5910    1748.0      9160    1749.5      9705    1748.6      9915
GR1732.9       9950     1748.6      9950.1  1748.6      9951.5  1732.9      9951.6  1732.9      9982.8
GR1748.6       9982.9   1748.6      9984.3  1732.9      9984.4  1732.9     10015.6  1748.6     10015.7
GR1748.6      10017.1   1732.9     10017.2  1732.9     10048.4  1748.6     10048.5  1748.6     10049.9
GR1732.9      10050     1748.6     10085    1750.7     10225    1752.0     10275    1752.0     14055
GR1756.0      15285     1760.0     17630    1770.0     18935
K1  5.224         38       9915     10085        98        98
BT        4    9705     1749.5     1749.5     9915    1750.2    1748.6     10085    1749.9    1748.6
BT    10225    1750.7     1750.7
GR1772.0       1950     1768.0      2215    1764.0      2545    1760.0      2950    1756.0      3285
GR1752.0       3465     1748.0      3490    1748.0      3555    1752.0      3570    1752.0      3675
GR1748.0       4320     1748.0      5910    1748.0      9160    1749.5      9705    1748.6      9915
GR1733.1       9948     1748.6      9949.1  1748.6      9953.5  1733.1      9953.6  1733.1      9980.8
GR1748.6       9980.9   1748.6      9986.3  1733.1      9986.4  1733.1     10013.6  1748.6     10013.7
GR1748.6      10019.1   1733.1     10019.2  1733.1     10046.4  1748.6     10046.4  1748.6     10051.9
GR1733.1      10052     1748.6     10085    1750.7     10225    1752.0     10275    1752.0     14055
GR1756.0      15285     1760.0     17630    1770.0     18935
K1  5.225         24       9915     10085         1         1         1
GR1772.0       1950     1768.0      2215    1764.0      2545    1760.0      2950    1756.0      3285
GR1752.0       3465     1748.0      3490    1748.0      3555    1752.0      3570    1752.0      3675
GR1748.0       4320     1748.0      5910    1748.0      9160    1749.5      9705    1750.2      9915
GR1733.1       9948     1733.1     10052    1749.9     10085    1750.7     10225    1752.0     10275
GR1752.0      14055     1756.0     15285    1760.0     17630    1770.0     18935
NH       10    0.040        2530    0.100      3430     0.040      3725    0.130      6415    0.045
NH     9310    0.045        9905    0.035     10040     0.030     10470    0.130     17670    0.040
NH 18830
K1   5.24         32       9905     10040        60        60        60
GR1772.0       2005     1768.0      2380    1764.0      2530    1760.0      2985    1756.0      3280
GR1752.0       3430     1748.0      3445    1748.0      3515    1752.0      3530    1752.0      3725
GR1748.0       5155     1748.0      6415    1748.0      7065    1752.0      9310    1754.5      9803
GR1751.8       9826     1751.9      9875    1751.5      9905    1733.1      9937    1733.3      9978
GR1734.7       9988     1733.3      9997    1733.3     10002    1736.9     10017    1738.3     10029
GR1751.8      10040     1754.7     10071    1752.0     10470    1752.0     13825    1756.0     15240
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GR1760.0  17670  1770.0  18830
NC                 0.1      0.3
NH      5  0.045    3110   0.130    8140   0.040    9916   0.035   10051   0.130
NH  18390
K1   5.46       36    9916   10051   1198    1198    1198
GR1776.0    2110  1772.0    2325  1758.0    2540  1764.0    2980  1760.0    3040
GR1760.0    3110  1760.0    3235  1756.0    3885  1756.0    5415  1752.0    6005
GR1752.0    6970  1756.0    8140  1756.0    9205  1757.8    9459  1756.6    9628
GR1755.6    9684  1757.1    9788  1756.2    9916  1741.7    9949  1741.5    9975
GR1741.4    9995  1741.4   10005  1743.4   10023  1748.9   10034  1748.9   10046
GR1758.0   10051  1759.7   10088  1758.8   10131  1757.5   10151  1758.6   10156
GR1758.9   10191  1756.0   11870  1756.0   13430  1760.0   14710  1760.0   16520
GR1770.0   18390
NC  0.025  0.025  0.025
NH      9  0.045    2785   0.120    4110   0.045    8635   0.080    9540   0.040
NH   9930  0.025   10071   0.130   10430   0.040   10990   0.120   17865
K1   5.75       31    9930   10071   1532    1532    1532
GR1772.0    2445  1768.0    2785  1764.0    4110  1760.0    5145  1760.0    8635
GR1764.0    9540  1764.8    9605  1763.8    9717  1762.6    9821  1762.8    9910
GR1756.6    9930  1744.8    9959  1744.8    9972  1744.8   10028  1744.8   10039
GR1745.0   10041  1763.8   10071  1765.2   10102  1765.3   10169  1765.4   10247
GR1765.8   10344  1763.6   10368  1764.8   10376  1763.8   10430  1764.0   10465
GR1764.0   10815  1760.5   10990  1750.0   14820  1764.0   15135  1764.0   16295
GR1770.0   17865
K1   5.78                          150      150     150
NC                 0.3      0.5
NH      7  0.100    3790   0.040    8475   0.100    9725   0.040    9911   0.025
NH  10091  0.040   10915   0.130   17605
K1  5.794       22    9911   10091     50     150      70
GR1776.0    1580  1772.0    2120  1772.0    2420  1768.0    2780  1768.0    3790
GR1764.0    4155  1760.0    5315  1750.0    6875  1762.2    8475  1764.0    9725
GR1764.4    9911  1762.5 9912.4  1745.7 9945.6  1745.7 10054.5  1762.5 10087.6
GR1763.5   10091  1764.2   10256  1764.0   10305  1764.0   10915  1764.0   16130
GR1768.0   16295  1770.0   17605
K1  5.795       36    9911   10091       1       1       1
BT      7    9725  1764.0  1764.0    9911  1764.4  1764.4  9912.4  1764.4  1762.5
BT9983.5   1764.4 1762.5 10087.6  1764.4  1762.5   10091  1763.5  1763.5   10256
BT1764.2   1764.2
GR1776.0    1580  1772.0    2120  1772.0    2420  1768.0    2780  1768.0    3790
GR1764.0    4155  1760.0    5315  1760.0    6875  1762.2    8475  1764.0    9725
GR1764.4    9911  1762.5 9912.4  1745.7 9947.6  1762.5 9947.7  1762.5 9948.9
GR1745.7 9949.0  1745.7 9982.1  1762.5 9982.2  1762.5 9983.4  1745.7 9983.5
GR1745.7 10016.6 1762.5 10016.7 1762.5 10017.9 1745.7 10018.0 1745.7 10051.1
GR1762.5 10051.2 1762.5 10052.4 1745.7 10052.5 1762.5 10087.6 1763.5  10091
GR1764.2   10256  1764.0   10305  1764.0   10915  1764.0   16130  1768.0   16295
GR1770.0   17605
K1  5.813       36    9911   10091      98      98      98
BT      7    9725  1764.0  1764.0    9911  1764.4  1764.4  9912.4  1764.4  1762.5
BT9985.5   1764.4 1762.5 10087.6  1764.4  1762.5   10091  1763.5  1763.5   10256
BT1764.2   1764.2
GR1776.0    1580  1772.0    2120  1772.0    2420  1768.0    2780  1768.0    3790
GR1764.0    4155  1760.0    5315  1760.0    6875  1762.2    8475  1764.0    9725
GR1764.4    9911  1762.5 9912.4  1745.9 9945.6  1762.5 9945.7  1762.5 9950.9
GR1745.9 9951.0  1745.9 9980.1  1762.5 9980.2  1762.5 9985.4  1745.9 9985.5
GR1745.9 10014.6 1762.5 10014.7 1752.5 10019.9 1745.9 10020.0 1745.9 10049.1
GR1762.5 10049.2 1762.5 10054.4 1745.9 10054.5 1762.5 10087.6 1763.5  10091
GR1764.2   10256  1764.0   10305  1764.0   10915  1764.0   16130  1768.0   16295
GR1770.0   17605
K1  5.814       22    9911   10091       1       1       1
GR1776.0    1580  1772.0    2120  1772.0    2420  1768.0    2780  1768.0    3790
GR1764.0    4155  1760.0    5315  1750.0    6875  1762.2    8475  1764.0    9725
GR1764.4    9911  1762.5 9912.4  1745.9 9945.6  1745.9 10054.5  1762.5 10087.6
GR1763.5   10091  1764.2   10256  1764.0   10305  1764.0   10915  1764.0   16130
GR1768.0   16295  1770.0   17605
NH      7  0.130    3750   0.045    3360   0.100    9605   0.05     9913   0.032
NH  10069  0.040   10430   0.130   17560
K1   5.82       30    9913   10069      30      30
GR1776.0    1480  1772.0    2280  1768.0    2765  1768.0    3750  1764.0    4200
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GR1764.0	4650	1760.0	5405	1760.0	6855	1763.2	8360	1764.0	9605
GR1762.5	9753	1761.2	9821	1753.8	9857	1761.4	9883	1760.3	9897
GR1760.7	9913	1748.4	9941	1750.0	9953	1749.4	9966	1747.6	9973
GR1747.5	10027	1760.1	10069	1759.3	10083	1760.2	10112	1761.4	10148
GR1760.3	10182	1764.0	10430	1764.3	15750	1768.0	16250	1770.0	17560
NC			0.1	0.3					
NH 7	0.130	5985	0.040	7995	0.100	9841	0.050	9913	0.032
NH 10869	0.050	15015	0.130	17710					
X1 5.96	26	9913	10069	750	550	730			
GR1776.0	1875	1772.0	2370	1768.0	3700	1764.0	5985	1764.0	7995
GR1764.0	9600	1764.5	9841	1764.5	9888	1761.8	9897	1759.7	9913
GR1751.8	9941	1752.0	9953	1752.0	9966	1749.4	9973	1749.4	10027
GR1762.4	10069	1761.8	10083	1762.4	10112	1763.7	10148	1762.4	10182
GR1764.1	10289	1768.0	10455	1768.0	15015	1768.0	16445	1770.0	16960
GR1775.0	17710								
QT 1	5900								
NH 7	0.100	9698	0.040	9939	0.032	10054	0.040	13800	0.100
NH 14580	0.040	15590	0.130	17505					
X1 6.16	48	9939	10054	1056	1056	1056			
GR1780.0	1375	1776.0	2245	1772.0	3025	1768.0	9030	1768.1	9698
GR1768.1	9728	1764.7	9756	1765.1	9763	1769.1	9786	1766.9	9809
GR1766.9	9845	1766.7	9878	1761.5	9892	1767.3	9911	1763.0	9939
GR1755.1	9962	1751.8	9989	1751.8	10011	1760.7	10044	1764.9	10054
GR1764.9	10072	1765.8	10077	1765.7	10090	1764.9	10098	1765.7	10102
GR1767.5	10111	1766.9	10147	1766.3	10164	1766.6	10174	1766.5	10208
GR1766.5	10228	1766.5	10267	1764.9	10286	1764.7	10315	1765.3	10352
GR1767.6	10374	1768.3	10401	1766.5	10440	1767.7	10441	1768.0	10550
GR1768.0	11200	1772.0	11545	1772.0	13800	1772.0	14580	1772.0	15590
GR1772.0	16400	1776.0	17255	1780.0	17505				
NH 8	0.090	7425	0.130	9676	0.040	9949	0.045	10057	0.040
NH 10339	0.100	12245	0.040	13590	0.130	17275			
X1 6.35	28	9949	10057	1100	950	1004			
GR1784.0	1180	1780.0	1770	1776.0	3005	1776.0	7425	1776.0	9020
GR1772.4	9676	1772.4	9743	1772.8	9870	1771.8	9949	1762.9	9968
GR1760.4	9981	1760.2	9992	1760.2	10008	1760.3	10019	1760.3	10027
GR1760.4	10032	1766.1	10045	1771.8	10057	1772.4	10084	1771.6	10099
GR1771.6	10125	1772.8	10172	1774.9	10339	1775.5	12245	1776.0	13590
GR1776.0	15835	1776.0	16795	1780.0	17275				
NH 6	0.090	8115	0.130	9946	0.045	10057	0.100	11980	0.040
NH 16070	0.130	18375							
X1 6.40	34	9946	10057	300	270	292			
X3			9862	1775.1	10128	1774.0			
GR1784.0	1215	1780.0	2265	1776.0	6430	1776.0	8115	1776.0	9640
GR1775.6	9710	1773.9	9772	1773.9	9799	1773.6	9810	1775.1	9862
GR1775.0	9946	1767.1	9964	1767.1	9983	1766.4	9991	1766.4	9995
GR1766.4	10009	1770.2	10033	1773.3	10057	1773.0	10073	1772.7	10087
GR1774.0	10128	1772.6	10143	1772.5	10183	1772.6	10224	1766.6	10239
GR1766.6	10247	1774.1	10268	1776.2	10297	1776.0	10850	1776.0	11980
GR1776.0	13470	1778.9	16070	1780.0	17095	1784.0	18375		
NH 7	0.090	8865	0.100	9932	0.045	10035	0.045	10610	0.100
NH 11340	0.045	15790	0.130	18305					
X1 6.57	29	9932	10035	920	500	856			
X3 10									
GR1788.0	35	1784.0	1250	1780.0	4925	1780.0	8865	1777.8	9808
GR1777.8	9828	1778.8	9854	1781.6	9932	1770.6	9945	1769.3	9972
GR1769.3	9982	1768.5	9991	1768.5	10009	1773.3	10020	1773.3	10032
GR1781.6	10035	1778.6	10061	1777.5	10085	1779.6	10129	1779.6	10224
GR1776.8	10433	1776.0	10475	1776.0	10610	1780.0	11340	1780.0	15790
GR1780.0	17135	1784.0	17805	1788.0	18025	1790.0	18305		
NH 9	0.130	4690	0.100	13425	0.130	14809	0.030	14942	0.035
NH 15039	0.045	16195	0.100	16755	0.045	21140	0.130	22860	
X1 6.71	42	14942	15039	650	450	780			
X3			14942	1784.8	15039	1784.8			
GR1796.0	2680	1792.0	3960	1792.0	4690	1784.0	8200	1784.0	12020
GR1784.0	13425	1780.0	14065	1780.0	14680	1777.4	14809	1777.6	14835
GR1778.5	14910	1779.0	14914	1784.8	14942	1773.0	14956	1769.3	14987
GR1769.3	14997	1769.3	15012	1771.9	15025	1784.8	15039	1781.9	15040
GR1781.9	15071	1781.0	15110	1781.3	15136	1781.2	15150	1781.2	15167

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GR1780.0   15195   1782.1   15222   1782.1   15298   1781.8   15387   1779.8   15404
GR1779.8   15461   1781.6   15472   1781.0   15531   1780.0   15640   1780.0   15710
GR1782.0   16195   1782.0   16755   1784.0   21140   1784.0   21860   1788.0   22235
GR1792.0   22575   1796.0   22960
EJ


ER
EOF..
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SF
TN        ROB BREAKOUT UPSTREAM OF NELLIS AVE
NS      3   4.456     4.57        -1      .050      .002
NG      0  1738.0       60   1738.3       620    1738.8
EE

      57
    4.42        SECNO=River Mileage (above Advance Wastewater Treatment Plant)
    4.42        Starting Discharge for 050 is reduced by 870 cfs to account
    4.42        for upstream breakouts which do not return to the channel
    4.42        concurrently with the peak channel flow.
    4.42        Centerline Station at 10000
   4.437        Centerline Station at 10000
   4.438        Centerline Station at 10000
   4.456        ****  Nellis Boulevard  ****
   4.456              1* Debris Loading
   4.456                Normal Bridge
   4.456        Centerline Station at 10000
   4.457        Centerline Station at 10000
    4.47        Centerline Station at 10000
    4.57        Centerline Station at 10000
    4.57        From 4.57 to 4.75, limit 050 expansion to Nellis on LOB and
    4.57        to 1:1 limits on ROB starting above 4.75.
    4.68        Centerline Station at 10000
   4.695        Centerline Station at 10000
   4.696        Centerline Station at 10000
   4.714        ****  Charleston Boulevard  ****
   4.714              2* Debris Loading
   4.714                Normal Bridge
   4.714        Centerline Station at 10000
   4.715        Centerline Station at 10000
    4.72        Centerline Station at 10000
    4.75        Centerline Station at 10000
    4.94        Centerline Station at 10000
    5.18        Centerline Station at 10000
   5.205        Centerline Station at 10000
   5.206        Centerline Station at 10000
   5.224        ****  Stewart Avenue  ****
   5.224              2* Debris Loading
   5.224                Normal Bridge
   5.224        Centerline Station at 10000
   5.225        Centerline Station at 10000
    5.24        Centerline Station at 10000
    5.46        Centerline Station at 10000
    5.75        Centerline Station at 10000
    5.78        Centerline Station at 10000
   5.794        Centerline Station at 10000
   5.795        Centerline Station at 10000
   5.813        ****  Bonanza Avenue  ****
   5.813              2* Debris Loading
   5.813                Normal Bridge
   5.813        Centerline Station at 10000
   5.814        Centerline Station at 10000
    5.82        Centerline Station at 10000
    5.96        Centerline Station at 10000
    6.16        Centerline Station at 10000
    6.35        Centerline Station at 10000
    6.40        Upstream of confluence with Washington Ave Channel.
    6.40        ROB breakouts from upstream return at downstream xsec.
    6.40        Centerline Station at 10000
    6.57        Centerline Station at 10000
    6.71        Centerline Station at 15000
    6.71        Upstream of this xsec, 70% of LOB breakout from Reach 4
    6.71        returns to channel concurrently with channel peak Q.
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T1          CCR-CO/CDE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR (Middle Reach)                                  12/87      SRM
J1              2                                                                    1735.9
J2    -1                -1
J3   150
NC 0.050    0.027  0.0450      0.1       0.3
QT     1    13130
NH     5    0.045    3880    0.130      8050    0.050     9935   0.045    10132    0.100
NH 15890
X1  4.42       27    9935    10132       992      992      992
X3    10
GR1748.0     2045  1744.0     2335    1740.0     3060   1740.0     3515  1736.0     3675
GR1736.0     3880  1736.0     6450    1736.5     8050   1739.7     9731  1739.7     9794
GR1737.4     9813  1737.0     9935    1724.9     9956   1724.8    10000  1724.2    10052
GR1732.3    10072  1735.4    10095    1737.5    10132   1737.6    10179  1738.0    10236
GR1736.0    10750  1735.6    11580    1736.0    12365   1740.0    13440  1744.0    14870
GR1744.0    15580  1748.0    15890
NC                    0.3       0.5
NH     5    0.045    3896    0.130      8066    0.050     9933   0.045    10067    0.100
NH 15905
ET             6.1                                    9747    10251
X1 4.437       24    9933    10067        90        90       90
X3    10
GR1748.0     2061  1744.0     2351    1740.0     3076   1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466    1736.5     8066   1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953    1724.0    10047   1736.0    10067  1737.6    10147
GR1737.6    10194  1738.0    10251    1736.0    10765   1735.6    11595  1736.0    12380
GR1740.0    13455  1744.0    14885    1744.0    15515   1748.0    15905
ET             6.1                                    9747    10251
X1 4.438       38    9933    10067         1         1        1
X3    10
BT     7     9747  1739.7     1739.7    9827   1737.5     1735.5    9933  1737.5     1736.0
BT 10067  1737.5  1736.0     10147     1737.6   1737.6     10194  1737.6  1737.6     10251
BT1738.0  1738.0
GR1748.0     2061  1744.0     2351    1740.0     3076   1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466    1736.5     8066   1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9954    1736.0   9954.1   1736.0     9956  1724.0   9956.1
GR1724.0     9984  1736.0   9984.1    1736.0     9986   1724.0   9986.1  1724.0     10014
GR1736.0  10014.1  1736.0    10016    1724.0  10016.1   1724.0    10044  1736.0  10044.1
GR1736.0    10046  1724.0  10046.1    1736.0    10067   1737.6    10147  1737.6    10194
GR1738.0    10251  1736.0    10765    1735.6    11595   1736.0    12380  1740.0    13455
GR1744.0    14885  1744.0    15515    1748.0    15905
ET             6.1                                    9747    10251
X1 4.456       38    9933    10067        98        98       98
X3    10
BT     7     9747  1739.7     1739.7    9827   1737.5     1735.5    9933  1737.5     1736.0
BT 10067  1737.5  1736.0     10147     1737.6   1737.6     10194  1737.6  1737.6     10251
BT1738.0  1739.0
GR1748.0     2061  1744.0     2351    1740.0     3076   1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466    1736.5     8066   1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953    1736.0   9953.1   1736.0     9957  1724.0   9957.1
GR1724.0     9983  1736.0   9983.1    1736.0     9987   1724.0   9987.1  1724.0     10013
GR1736.0  10013.1  1736.0    10017    1724.0  10017.1   1724.0    10043  1736.0  10043.1
GR1736.0    10047  1724.0  10047.1    1736.0    10067   1737.6    10147  1737.6    10194
GR1738.0    10251  1736.0    10765    1735.5    11595   1736.0    12380  1740.0    13455
GR1744.0    14885  1744.0    15515    1748.0    15905
ET             6.1                                    9747    10251
X1 4.457       24    9933    10067         1         1        1
X2
X3    10
GR1748.0     2061  1744.0     2351    1740.0     3076   1740.0     3531  1736.0     3691
GR1736.0     3896  1736.0     6466    1736.5     8066   1739.7     9747  1735.5     9827
GR1736.0     9933  1724.0     9953    1724.0    10047   1736.0    10067  1737.6    10147
GR1737.6    10194  1738.0    10251    1736.0    10765   1735.6    11595  1736.0    12380
GR1740.0    13455  1744.0    14885    1744.0    15515   1748.0    15905
QT     1    12130
NH     6    0.045    3730    0.130      8295    0.050     9966   0.045    10097    0.050
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NH 11360    0.100     15640
ET              6.1                                 9740     10072
X1   4.47        41      9919     10050          60       60       60
X3     10
GR1752.0      1595   1748.0      2035   1744.0      2425   1740.0      2805   1740.0      2515
GR1740.0      3730   1736.0      3745   1736.0      3840   1740.0      4015   1740.0      5405
GR1736.0      6015   1736.0      6200   1737.2      8295   1739.2      9740   1738.8      9851
GR1737.3      9875   1739.1      9903   1736.9      9919   1725.6      9942   1725.6      9963
GR1727.1      9978   1724.8      9989   1724.3     10010   1728.9     10012   1728.1     10025
GR1733.8     10029   1737.5     10040   1738.8     10050   1738.8     10072   1737.1     10078
GR1737.7     10230   1737.1     10310   1738.4     10373   1739.4     10392   1737.3     10397
GR1738.4     10434   1736.0     11360   1740.0     12920   1744.0     13910   1748.0     14620
GR1752.0     15640
NC                                0.1       0.3
NH       6   0.045      3365    0.130      8820    0.050      9470    0.065      9914    0.055
NH 10061     0.070     10493    0.100     15515
ET              6.1                                 9470     10403
X1   4.57        43      9914     10061         350      800      562
X3     10
GR1756.0      1380   1752.0      1575   1748.0      2055   1744.0      2675   1740.0      2690
GR1740.0      2770   1744.0      2780   1744.0      3365   1740.0      4025   1740.0      5560
GR1738.0      6140   1740.0      6990   1740.0      8820   1740.0      9470   1740.5      9751
GR1738.8      9862   1737.3      9886   1739.1      9914   1736.9      9930   1725.6      9953
GR1725.6      9974   1727.1      9989   1725.0     10000   1725.8     10021   1728.9     10023
GR1728.1     10036   1733.8     10040   1737.5     10051   1738.8     10061   1738.8     10083
GR1737.1     10089   1737.7     10241   1737.1     10321   1739.4     10384   1739.4     10403
GR1737.3     10408   1738.4     10445   1740.5     10493   1740.0     11925   1744.0     13145
GR1748.0     14000   1752.0     14575   1756.0     15515
NH       5   0.130      1580    0.045      3635    0.130      9935    0.050     10050    0.100
NH 16450
ET              6.1                                 9320     10600
X1   4.68        28      9935     10065         350      550      540
X3     10
GR1760.0      1210   1756.0      1580   1752.0      1775   1748.0      2215   1744.0      2755
GR1740.0      2770   1740.0      2955   1744.0      2865   1744.0      3635   1740.0      4355
GR1740.0      9320   1740.0      9935   1725.6      9942   1725.6      9963   1727.1      9978
GR1725.2      9989   1725.2     10010   1728.9     10012   1728.1     10025   1733.8     10029
GR1737.5     10040   1738.8     10050   1740.0     10065   1744.0     13035   1749.0     13975
GR1752.0     14925   1756.0     15500   1760.0     16450
NC                                0.3       0.5
NH       5   0.130      1659    0.045      3714    0.130      9913    0.050     10087    0.100
NH 16494
ET              6.1                                 9399     10300
X1  4.695        23      9913     10087         100      100      100
X3     10
GR1760.0      1289   1756.0      1659   1752.0      1854   1748.0      2294   1744.0      2834
GR1740.0      2949   1740.0      2934   1744.0      2944   1744.0      3714   1740.0      4434
GR1740.0      9399   1740.9      9661   1740.3      9913   1733.0    9913.2   1725.6    9927.9
GR1725.6  10172.2   1733.0  10086.8   1740.5     10087   1744.0     13079   1748.0     14019
GR1752.0     14969   1756.0     15544   1760.0     16494
ET              6.1                                 9399     10300
X1   4.696        37      9913     10087           1        1        1
X3     10
BT       6      9661   1740.9      1740.9      9913   1740.3      1740.3    9913.2   1740.5    1733.0
BT9913.2     1740.5   1733.0  10086.8   1740.5   1733.0     10087   1740.5   1740.5
GR1760.0      1289   1756.0      1659   1752.0      1854   1748.0      2294   1744.0      2834
GR1740.0      2849   1740.0      2934   1744.0      2944   1744.0      3714   1740.0      4434
GR1740.0      9399   1740.9      9661   1740.3      9913   1733.0    9913.2   1725.6    9927.9
GR1733.0      9930   1733.0    9931.5   1725.6    9931.6   1725.6    9976.2   1733.0    9976.3
GR1733.0    9977.7   1725.6    9977.8   1725.6   10022.4   1733.0   10022.5   1733.0   10023.9
GR1725.6     10024   1725.6  10068.6   1733.0   10068.7   1733.0   10070.1   1725.6   10070.2
GR1733.0  10086.8   1740.0     10087   1744.0     13079   1748.0     14019   1752.0     14569
GR1756.0     15544   1760.0     16494
ET              6.1                                 9399     10200
X1  4.714        37      9913     10087          98       98       98
X3     10
X4      1   1744.0     10200
BT       6      9661   1740.9      1740.9      9913   1740.3      1740.3    9913.2   1740.5    1733.0
```

319913.2	1740.5	1733.0	10086.8	1740.5	1733.0	10087	1740.5	1740.5	
GR1760.0	1289	1756.0	1659	1752.0	1854	1748.0	2294	1744.0	2834
GR1740.0	2849	1740.0	2934	1744.0	2944	1744.0	3714	1740.0	4434
GR1740.0	9399	1740.9	9661	1740.3	9913	1733.0	9913.2	1725.6	9927.9
GR1733.0	9928	1733.0	9933.5	1725.6	9933.6	1725.6	9974.2	1733.0	9974.2
GR1733.0	9979.7	1725.6	9979.8	1725.6	10020.4	1733.0	10020.5	1733.0	10025.9
GR1725.6	10026	1725.6	10066.6	1733.0	10066.7	1733.0	10072.1	1725.6	10072.2
GR1733.0	10086.8	1740.0	10087	1744.0	13079	1748.0	14019	1752.0	14969
GR1756.0	15544	1760.0	16494						
ET	6.1				9399	10200			
X1 4.715	23	9913	10087	1	1	1			
X3 10							1740.5	1740.5	
X4 1	1744.0	10200							
GR1760.0	1289	1756.0	1659	1752.0	1854	1748.0	2294	1744.0	2834
GR1740.0	2849	1740.0	2934	1744.0	2944	1744.0	3714	1740.0	4434
GR1740.0	9399	1740.9	9661	1740.3	9913	1733.0	9913.2	1725.6	9927.9
GR1725.6	10172.2	1733.0	10086.8	1740.5	10087	1744.0	13079	1748.0	14019
GR1752.0	14969	1756.0	15544	1760.0	16494				
NH 8	0.130	1810	0.045	3880	0.130	8875	0.040	9954	0.035
NH 10096	0.100	14690	0.045	15375	0.130	16450			
ET	6.1				9300	10240			
X1 4.72	35	9954	10056	50	50	50			
X3 10									
GR1760.0	1420	1756.0	1810	1752.0	1995	1748.0	2455	1744.0	2935
GR1740.0	2950	1740.0	3035	1744.0	3050	1744.0	3880	1740.0	4875
GR1740.0	6390	1744.0	7295	1744.0	8875	1742.3	9833	1741.9	9954
GR1729.6	9976	1729.2	9988	1728.3	9995	1728.3	10004	1728.9	10012
GR1729.6	10028	1729.9	10055	1732.6	10062	1733.0	10079	1734.7	10082
GR1743.5	10095	1743.9	10137	1744.0	10240	1744.0	11760	1742.9	12510
GR1744.0	13400	1748.0	14690	1752.0	15375	1756.0	15925	1760.0	16450
NC			0.1	0.3					
ET	6.1				9300	10240			
X1 4.75				150	150	150			
X3 10									
NH 8	0.130	3095	0.045	3280	0.100	7641	0.045	9897	0.035
NH 10059	0.130	13550	0.040	16455	0.130	17025			
X1 4.94	32	9897	10059	750	965	965			
X3 10									
GR1760.0	1720	1756.0	1875	1756.0	2530	1752.0	2690	1748.0	3095
GR1744.0	3196	1744.0	3280	1744.0	7641	1746.6	9781	1746.3	9889
GR1745.6	9897	1745.6	9912	1730.5	9944	1730.6	9953	1730.6	9982
GR1730.1	10000	1731.9	10014	1734.3	10035	1747.9	10059	1748.7	10097
GR1748.7	10142	1748.0	10160	1744.0	10195	1744.0	11245	1748.0	11520
GR1744.0	13550	1748.0	14300	1752.0	15140	1752.0	15755	1756.0	15865
GR1756.0	16455	1760.0	17025						
NH 8	0.130	3500	0.045	3575	0.130	5425	0.045	9330	0.065
NH 9905	0.035	10040	0.130	17355	0.040	18900			
X1 5.18	29	9905	10040	1100	1277	1277			
X3 10									
GR1768.0	2100	1764.0	2520	1760.0	2820	1756.0	3255	1748.0	3500
GR1748.0	3555	1752.0	3575	1752.0	4030	1748.0	4155	1748.0	5425
GR1748.0	9330	1753.5	9803	1750.8	9826	1750.9	9875	1750.5	9905
GR1732.1	9937	1732.3	9978	1733.7	9988	1732.3	9997	1732.3	10002
GR1735.9	10017	1737.3	10029	1750.8	10040	1753.7	10071	1752.0	10200
GR1752.0	14875	1756.0	15780	1760.0	17355	1770.0	18900		
NC			0.3	0.5					
NH 9	0.040	2545	0.130	3465	0.040	3675	0.130	5910	0.045
NH 9160	0.045	9915	0.035	10085	0.130	17630	0.040	18935	
X1 5.205	24	9915	10085	150	150	150			
X3 10									
GR1772.0	1950	1768.0	2215	1764.0	2545	1760.0	2950	1756.0	3285
GR1752.0	3465	1748.0	3490	1748.0	3555	1752.0	3570	1752.0	3675
GR1748.0	4320	1748.0	5910	1748.0	9160	1749.5	9705	1750.2	9915
GR1732.9	9948	1732.9	10052	1749.9	10085	1750.7	10225	1752.0	10275
GR1752.0	14055	1756.0	15285	1760.0	17630	1770.0	18935		
X1 5.206	38	9915	10085	1	1	1			
X3 10									
BT 4	9705	1749.5	1749.5	9915	1750.2	1748.6	10085	1749.9	1748.5

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BT 10225  1750.7  1750.7
GR1772.0     1950  1768.0     2215  1754.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1748.0     3490  1748.0     3555  1752.0     3570  1752.0     3675
GR1748.0     4320  1748.0     5910  1748.0     9160  1749.5     9705  1748.6     9915
GR1732.9     9950  1748.6     9950.1  1748.6     9951.5  1732.9     9951.6  1732.9     9982.8
GR1748.6     9982.9  1748.6     9984.3  1732.9     9984.4  1732.9     10015.6  1748.6     10015.7
GR1748.6     10017.1  1732.9     10017.2  1732.9     10048.4  1748.6     10048.5  1748.6     10049.9
GR1732.9     10050  1748.6     10085  1750.7     10225  1752.0     10275  1752.0     14055
GR1756.0     15285  1760.0     17630  1770.0     18935
K1  5.224      38     9915     10085       98       98       98
K3     10
BT      4     9915  1749.5  1749.5     9915  1750.2  1748.6     10085  1749.9  1748.6
BT 10225  1750.7  1750.7
GR1772.0     1950  1768.0     2215  1754.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1748.0     3490  1748.0     3555  1752.0     3570  1752.0     3675
GR1748.0     4320  1748.0     5910  1748.0     9160  1749.5     9705  1748.6     9915
GR1733.1     9948  1748.6     9948.1  1748.6     9953.5  1733.1     9953.6  1733.1     9980.8
GR1748.6     9980.9  1748.6     9986.3  1733.1     9986.4  1733.1     10013.6  1748.6     10013.7
GR1748.6     10019.1  1733.1     10019.2  1733.1     10046.4  1748.6     10046.4  1748.6     10051.9
GR1733.1     10052  1748.6     10085  1750.7     10225  1752.0     10275  1752.0     14055
GR1756.0     15285  1760.0     17630  1770.0     18935
K1  5.225      24     9915     10085        1        1        1
K3     10
GR1772.0     1950  1768.0     2215  1764.0     2545  1760.0     2950  1756.0     3285
GR1752.0     3465  1748.0     3490  1748.0     3555  1752.0     3570  1752.0     3675
GR1748.0     4320  1748.0     5910  1748.0     9160  1749.5     9705  1750.2     9915
GR1733.1     9948  1733.1     10052  1749.9     10085  1750.7     10225  1752.0     10275
GR1752.0     14055  1756.0     15285  1760.0     17630  1770.0     18935
VH     10   0.040     2530   0.100     3430   0.040     3725   0.130     6415   0.045
VH   9310   0.045     9905   0.035     10040   0.030     10470   0.130     17670   0.040
VH 18830
K1  5.24      32     9905     10040       60       60       60
K3     10
GR1772.0     2005  1768.0     2380  1754.0     2530  1760.0     2985  1756.0     3280
GR1752.0     3430  1748.0     3445  1748.0     3515  1752.0     3530  1752.0     3725
GR1748.0     5155  1748.0     6415  1748.0     7065  1752.0     9310  1754.5     9803
GR1751.8     9826  1751.9     9875  1751.5     9905  1733.1     9937  1733.3     9978
GR1734.7     9988  1733.3     9997  1733.3     10002  1736.9     10017  1738.3     10029
GR1751.8     10040  1754.7     10071  1752.0     10470  1752.0     13825  1756.0     15240
GR1760.0     17670  1770.0     18830
NC                      0.1       0.3
VH      5   0.045     3110   0.130     3140   0.040     9916   0.035     10051   0.130
VH 18390
K1  5.46      36     9916     10051     1198     1198     1198
K3     10
GR1776.0     2110  1772.0     2325  1758.0     2540  1764.0     2980  1760.0     3040
GR1760.0     3110  1760.0     3235  1756.0     3885  1756.0     5415  1752.0     6005
GR1752.0     6970  1756.0     9140  1756.0     9205  1757.8     9459  1756.6     9628
GR1755.6     9684  1757.1     9788  1756.2     9916  1741.7     9949  1741.5     9975
GR1741.4     9995  1741.4     10005  1743.4     10023  1748.9     10034  1748.9     10046
GR1758.0     10051  1759.7     10088  1758.8     10131  1757.5     10151  1758.6     10156
GR1758.9     10191  1756.0     11870  1756.0     13430  1760.0     14710  1760.0     16520
GR1770.0     18390
NC  0.025   0.025   0.025
VH      9   0.045     2785   0.120     4110   0.045     8635   0.080     9540   0.040
VH   9930   0.025     10071   0.130     10430   0.040     10990   0.120     17865
K1  5.75      31     9930     10071     1532     1532     1532
K3     10
GR1772.0     2445  1768.0     2785  1764.0     4110  1760.0     5145  1760.0     8635
GR1764.0     9540  1764.8     9605  1763.8     9717  1762.6     9821  1762.8     9910
GR1758.6     9930  1744.8     9959  1744.8     9972  1744.8     10028  1744.8     10039
GR1745.0     10041  1763.8     10071  1755.2     10102  1765.3     10169  1765.4     10247
GR1765.8     10344  1763.6     10368  1764.8     10376  1763.8     10430  1764.0     10465
GR1764.0     10815  1760.5     10990  1750.0     14820  1764.0     15135  1764.0     16295
GR1770.0     17865
K1  5.78                              150      150      150
K3     10
NC                      0.3       0.5
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NH       7   0.100     3790   0.040     9475   0.100     9725   0.040     9911   0.025
NH   10091   0.040    10915   0.130    17605
X1   5.794      22     9911   10091        50      150       70
X3      10
GR1775.0     1580   1772.0     2120   1772.0     2420   1768.0     2780   1768.0     3790
GR1764.0     4155   1760.0     5315   1760.0     6875   1762.2     8475   1764.0     9725
GR1764.4     9911   1762.5   9912.4   1745.7   9945.6   1745.7  10054.5   1762.5  10087.6
GR1763.5    10091   1764.2    10256   1754.0    10305   1764.0    10915   1764.0    16130
GR1768.0    16295   1770.0    17605
X1   5.795      36     9911   10091        1         1         1
X3      10
BT       7     9725   1764.0   1764.0     9911   1764.4   1764.4   9912.4   1766.0   1762.5
BT9983.5  1766.0   1762.5  10087.6   1766.0   1762.5    10091   1763.5   1763.5    10256
BT1764.2  1764.2
GR1776.0     1580   1772.0     2120   1772.0     2420   1768.0     2780   1768.0     3790
GR1764.0     4155   1760.0     5315   1760.0     6875   1762.2     8475   1764.0     9725
GR1764.4     9911   1762.5   9912.4   1745.7   9947.6   1762.5   9947.7   1762.5   9948.5
GR1745.7   9949.0   1745.7   9982.1   1752.5   9982.2   1762.5   9983.4   1745.7   9983.5
GR1745.7  10016.6   1762.5  10016.7   1762.5  10017.9   1745.7  10018.0   1745.7  10051.1
GR1762.5  10051.2   1762.5  10052.4   1745.7  10052.5   1762.5  10087.6   1763.5    10091
GR1764.2    10256   1764.0    10305   1764.0    10915   1764.0    16130   1768.0    16295
GR1770.0    17605
X1   5.813      36     9911   10091        98        98        98
X3      10
BT       7     9725   1764.0   1764.0     9911   1764.4   1764.4   9912.4   1766.0   1762.5
BT9985.5  1766.0   1762.5  10087.6   1766.0   1762.5    10091   1763.5   1763.5    10256
BT1764.2  1764.2
GR1776.0     1580   1772.0     2120   1772.0     2420   1768.0     2780   1768.0     3790
GR1764.0     4155   1760.0     5315   1760.0     6875   1762.2     8475   1764.0     9725
GR1764.4     9911   1762.5   9912.4   1745.9   9945.6   1762.5   9945.7   1762.5   9950.9
GR1745.9   9951.0   1745.9   9980.1   1762.5   9980.2   1762.5   9985.4   1745.9   9985.5
GR1745.9  10014.6   1762.5  10014.7   1752.5  10019.9   1745.9  10020.0   1745.9  10049.1
GR1762.5  10049.2   1762.5  10054.4   1745.9  10054.5   1762.5  10087.6   1763.5    10091
GR1764.2    10256   1764.0    10305   1764.0    10915   1764.0    16130   1768.0    16295
GR1770.0    17605
X1   5.814      22     9911   10091        1         1         1
X3      10
GR1776.0     1580   1772.0     2120   1772.0     2420   1768.0     2780   1768.0     3790
GR1764.0     4155   1760.0     5315   1760.0     6875   1762.2     8475   1764.0     9725
GR1764.4     9911   1762.5   9912.4   1745.9   9945.6   1745.9  10054.5   1762.5  10087.6
GR1763.5    10091   1764.2    10256   1764.0    10305   1764.0    10915   1764.0    16130
GR1768.0    16295   1770.0    17605
NH       7   0.130     3750   0.045     8360   0.100     9605   0.05      9913   0.032
NH   10069   0.040    10430   0.130    17560
X1    5.82      30     9913   10069        30        30        30
X3      10
GR1776.0     1430   1772.0     2280   1768.0     2765   1768.0     3750   1764.0     4200
GR1764.0     4650   1760.0     5405   1760.0     6855   1763.2     8360   1764.0     9605
GR1762.5     9753   1761.2     9821   1763.3     9857   1761.4     9883   1760.3     9897
GR1760.7     9913   1748.4     9941   1750.0     9953   1749.4     9966   1745.9     9973
GR1745.9    10027   1760.1    10069   1759.3    10083   1760.2    10112   1761.4    10148
GR1760.3    10182   1764.0    10430   1764.0    15750   1768.0    16260   1770.0    17560
NC                    0.1       0.3
NH       7   0.100     5985   0.040     7995   0.100     9841   0.050     9913   0.032
NH   10069   0.050    15015   0.130    17710
X1    5.96      26     9913   10069       750       650       730
X3      10
GR1776.0     1875   1772.0     2370   1768.0     3700   1764.0     5985   1764.0     7995
GR1764.0     9600   1764.5     9841   1764.5     9888   1761.8     9897   1759.7     9913
GR1751.8     9941   1752.0     9953   1752.0     9966   1749.4     9973   1749.4    10027
GR1762.4    10069   1761.8    10083   1762.4    10112   1763.7    10148   1762.4    10182
GR1764.1    10289   1768.0    10455   1768.0    15015   1768.0    16445   1770.0    16960
GR1775.0    17710
NH       7   0.100     9698   0.040     9939   0.032    10054   0.040    13800   0.100
NH   14580   0.040    15590   0.130    17505
X1    6.16      48     9939   10054       1056      1056      1056
X3      10
GR1780.0     1375   1776.0     2245   1772.0     3025   1768.0     9030   1768.1     9698
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GR1765.1     9723  1764.7     9756  1765.1     9763  1765.1     9786  1766.9     9809
GR1766.9     9845  1766.7     9878  1751.5     9892  1767.3     9911  1763.0     9939
GR1755.1     9952  1751.8     9989  1751.8    10011  1760.7    10044  1764.9    10054
GR1764.9    10072  1765.8    10077  1765.7    10090  1764.9    10098  1765.7    10102
GR1767.6    10111  1766.9    10147  1756.3    10164  1766.6    10174  1766.5    10208
GR1766.5    10228  1766.5    10267  1764.9    10286  1764.7    10315  1765.3    10352
GR1767.6    10374  1768.3    10401  1756.5    10440  1767.7    10441  1768.0    10550
GR1768.0    11200  1772.0    11545  1772.0    13800  1772.0    14580  1772.0    15590
GR1772.0    16400  1776.0    17255  1780.0    17505
VH      8    0.090     7425    0.130     9676    0.040     9949    0.045    10057    0.040
VH  10339    0.100    12245    0.040    13590    0.130    17275
K1   6.35       28     9949    10057     1100      950     1004
K3     10
GR1784.0     1130  1780.0     1770  1776.0     3005  1776.0     7425  1776.0     9020
GR1772.4     9676  1772.4     9743  1772.8     9870  1771.8     9949  1762.9     9968
GR1760.4     9981  1760.2     9992  1760.2    10008  1760.3    10019  1760.3    10027
GR1760.4    10032  1766.1    10045  1771.8    10057  1772.4    10084  1771.6    10099
GR1771.6    10125  1772.8    10172  1774.9    10339  1775.5    12245  1776.0    13590
GR1776.0    15835  1776.0    16795  1780.0    17275
QT      1    11760
VH      6    0.090     8115    0.130     9946    0.045    10057    0.100    11980    0.040
VH  16070    0.130    18375
ET           6.1                              9862    10297
K1   6.40       34     9946    10057      300      270      292
K3     10
GR1784.0     1215  1780.0     2265  1776.0     6430  1776.0     8115  1776.0     9640
GR1775.6     9718  1773.9     9772  1773.9     9799  1773.6     9810  1775.1     9862
GR1775.0     9946  1767.1     9964  1767.1     9983  1766.4     9991  1766.4     9995
GR1766.4    10009  1770.2    10033  1773.3    10057  1773.0    10073  1772.7    10087
GR1774.0    10128  1772.6    10143  1772.6    10183  1772.6    10224  1766.6    10239
GR1766.6    10247  1774.1    10268  1776.2    10297  1776.0    10850  1776.0    11980
GR1776.0    13470  1778.9    16070  1780.0    17095  1784.0    18375
VH      7    0.090     8865    0.100     9932    0.045    10035    0.045    10610    0.100
VH  11340    0.045    15790    0.130    19305
K1   6.57       29     9932    10035      920      500      856
K3     10
GR1788.0       35  1784.0     1250  1780.0     4925  1790.0     8865  1777.8     9808
GR1777.8     9828  1778.8     9854  1781.6     9932  1770.6     9945  1769.3     9972
GR1769.3     9932  1768.5     9991  1768.5    10009  1773.3    10020  1773.3    10032
GR1781.6    10035  1778.6    10061  1777.5    10085  1779.6    10129  1779.6    10224
GR1776.8    10433  1776.0    10475  1776.0    10610  1780.0    11340  1780.0    15790
GR1780.0    17135  1784.0    17805  1788.0    18025  1790.0    19305
VH      9    0.130     4690    0.100    13425    0.130    14809    0.030    14942    0.035
VH  15039    0.045    16195    0.100    16755    0.045    21140    0.130    22860
K1   6.71       42    14942    15039      650      450      780
K3     10
K4      2  1790.0     5200  1785.0     5600
GR1796.0     2680  1792.0     3960  1792.0     4690  1784.0     8200  1784.0    12020
GR1784.0    13425  1780.0    14065  1780.0    14680  1777.4    14809  1777.6    14935
GR1778.5    14910  1779.0    14914  1784.3    14942  1773.0    14956  1769.3    14987
GR1769.3    14997  1769.3    15012  1771.9    15025  1784.8    15039  1781.9    15040
GR1781.9    15071  1781.0    15110  1781.3    15136  1781.2    15150  1781.2    15167
GR1780.0    15195  1782.1    15222  1782.1    15298  1781.8    15387  1779.8    15404
GR1779.8    15451  1781.6    15472  1781.0    15531  1780.0    15640  1780.0    15710
GR1782.0    16195  1782.0    16755  1784.0    21140  1784.0    21860  1788.0    22235
GR1792.0    22575  1796.0    22860
ED


ER
EOF..
```

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   6-MAY-88 TIME   16:31:23          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X          XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX
```



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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************


SPLIT FLOW BEING PERFORMED

SF

TN        ROB BREAKOUT UPSTREAM OF NELLIS AVE
NS      3   4.456     4.57        -1     .050     .002
NC      0  1738.0       60  1738.8       620  1738.8
```



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C
T1        CORFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 50-YEAR (Middle Reach)                    12/87     SRM

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     G          WSEL      FQ
       0.        2.        0.        0.  0.000000      0.00      0.0       0.  1735.900     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
     -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
```

	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NC	0.050	0.027	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	1.000	13130.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3880.000	0.130	8050.000	0.050	9935.000	0.045	10132.000	0.100
NH	15890.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO=River Mileage (above Advance Wastewater Treatment Plant)
Starting Discharge for 950 is reduced by 870 cfs to account
for upstream breakouts which do not return to the channel
concurrently with the peak channel flow.
Centerline Station at 10000

X1	4.420	27.000	9935.000	10132.000	992.000	992.000	992.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2045.000	1744.000	2335.000	1740.000	3060.000	1740.000	3515.000	1736.000	3675.000
GR	1736.000	3880.000	1736.000	6450.000	1736.500	8050.000	1739.700	9731.000	1739.700	9754.000
GR	1737.400	9813.000	1737.000	9935.000	1724.900	9956.000	1724.500	10000.000	1724.200	10052.000
GR	1732.300	10072.000	1735.400	10095.000	1737.600	10132.000	1737.600	10179.000	1738.000	10236.000
GR	1736.000	10750.000	1735.600	11580.000	1736.000	12365.000	1740.000	13440.000	1744.000	14870.000
GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3896.000	0.130	8066.000	0.050	9933.000	0.045	10067.000	0.100
NH	15905.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9747.000	10251.000	0.000	0.000	0.000

Centerline Station at 10030

X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

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ET	0.000	6.100	0.000	0.000	0.000	9747.000	10251.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.439	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9954.000	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9984.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	9747.000	10251.000	0.000	0.000	0.000

**** Nellis Boulevard ****
1* Debris Loading
Normal Bridge
Centerline Station at 10000

X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1736.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000

GR	1736.000	10015.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9747.000	10251.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000
QT	1.000	12130.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10097.000	0.050
NH	11360.000	0.100	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9740.000	10072.000	0.000	0.000	0.000

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Centerline Station at 10000

X1	4.470	41.000	9919.000	10050.000	60.000	60.000	60.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1752.000	1595.000	1748.000	2035.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	6200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9903.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000	1738.800	10072.000	1737.100	10078.000
GR	1737.700	10230.000	1737.100	10310.000	1738.400	10373.000	1739.400	10392.000	1737.360	10397.000
GR	1738.400	10434.000	1736.000	11360.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000
GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	9914.000	0.055
NH	10061.000	0.070	10453.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9470.000	10403.000	0.000	0.000	0.000

Centerline Station at 10000
From 4.57 to 4.75, limit Q50 expansion to Nellis on LOB and
to 1:1 limits on R03 starting above 4.75.

X1	4.570	43.000	9914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1756.000	1380.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1738.300	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1738.800	9862.000	1737.300	9886.000	1739.100	9914.000	1736.900	9930.000	1725.600	9953.000
GR	1725.600	9974.000	1727.100	9989.000	1725.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.800	10040.000	1737.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	10089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384.000	1739.400	10403.000
GR	1737.300	10408.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1748.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10050.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9320.000	10600.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.580	28.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1210.000	1756.000	1580.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1740.000	2770.000	1740.000	2855.000	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000
GR	1740.000	9320.000	1740.000	9935.000	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000
GR	1725.200	9989.000	1725.200	10010.000	1728.900	10012.000	1728.100	10025.000	1733.800	10029.000
GR	1737.500	10040.000	1738.800	10050.000	1740.000	10065.000	1744.000	13035.000	1748.000	13975.000
GR	1752.000	14925.000	1756.000	15500.000	1760.000	16450.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10087.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9399.000	10300.000	0.000	0.000	0.000

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Centerline Station at 10000

X1	4.595	23.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9399.000	10300.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.596	37.000	9913.000	10987.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9930.000	1733.000	9931.500	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300
GR	1733.000	9977.700	1725.600	9977.800	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900
GR	1725.600	10024.000	1725.600	10068.600	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200
GR	1733.000	10086.800	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9399.000	10200.000	0.000	0.000	0.000

****** Charleston Boulevard ******
2* Debris Loading
Normal Bridge

Centerline Station at 10000

X1	4.714	37.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9928.000	1733.000	9933.500	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200
GR	1733.000	9979.700	1725.600	9979.800	1725.600	10020.400	1733.000	10020.500	1733.000	10025.900
GR	1725.600	10026.000	1725.600	10066.600	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200
GR	1733.000	10086.800	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9399.000	10200.000	0.000	0.000	0.000

Centerline Station at 10000

X1	4.715	23.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1740.500	1740.500	0.000
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000

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NH	8.000	0.130	1910.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035

NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9300.000	10240.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.720	35.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000
GR	1740.000	2950.000	1740.000	3035.000	1744.000	3050.000	1744.000	3680.000	1740.000	4675.000
GR	1740.000	6390.000	1744.000	7295.000	1744.000	8875.000	1742.300	9833.000	1741.900	9954.000
GR	1729.500	9976.000	1729.200	9988.000	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000
GR	1729.500	10028.000	1729.900	10055.000	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000
GR	1743.500	10096.000	1743.900	10137.000	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000
GR	1744.000	13400.000	1748.000	14690.000	1752.000	15375.000	1756.000	15925.000	1760.000	16450.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9300.000	10240.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	3095.000	0.045	3280.000	0.100	7641.000	0.045	9897.000	0.035
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1720.000	1756.000	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9869.000
GR	1745.500	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000
GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000
GR	1744.000	13550.000	1748.000	14300.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	3500.000	0.045	3575.000	0.130	5425.000	0.045	9330.000	0.065
NH	9905.000	0.035	10040.000	0.130	17355.000	0.040	18900.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	5.180	29.000	9905.000	10040.000	1100.000	1277.000	1277.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1768.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1748.000	3500.000
GR	1748.000	3555.000	1752.000	3575.000	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000
GR	1748.000	9330.000	1753.500	9803.000	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000
GR	1732.100	9937.000	1732.300	9978.000	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000
GR	1735.900	10017.000	1737.300	10029.000	1750.800	10040.000	1753.700	10071.000	1752.000	10200.000
GR	1752.000	14875.000	1756.000	15780.000	1760.000	17355.000	1770.000	18900.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045
NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17630.000	0.040	18935.000	0.000

		Centerline Station at 10000								
X1	5.205	24.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1732.900	9948.000	1732.900	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
		Centerline Station at 10000								
X1	5.206	38.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.500	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000

GR	1732.900	9950.000	1748.600	9950.100	1748.600	9951.500	1732.900	9951.600	1732.900	9982.800
GR	1748.500	9982.900	1748.600	9984.300	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700
GR	1748.500	10017.100	1732.900	10017.200	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900
GR	1732.900	10050.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

****** Stewart Avenue ******
2* Debris Loading
Normal Bridge
Centerline Station at 10000

X1	5.224	38.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9515.000
GR	1733.100	9948.000	1748.600	9948.100	1748.600	9953.500	1733.100	9953.600	1733.100	9980.800
GR	1748.600	9980.900	1748.600	9986.300	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700
GR	1748.600	10019.100	1733.100	10019.200	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900
GR	1733.100	10052.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.225	24.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1733.100	9948.000	1733.100	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000

NH	10.000	0.040	2530.000	0.100	3430.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.030	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.240	32.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	2005.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3430.000	1748.000	3445.000	1748.000	3515.000	1752.000	3530.000	1752.000	3725.000
GR	1748.000	5155.000	1748.000	6415.000	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000
GR	1751.300	9826.000	1751.900	9875.000	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000
GR	1734.700	9988.000	1733.300	9997.000	1733.300	10002.000	1736.900	10017.000	1738.300	10029.000
GR	1751.300	10040.000	1754.700	10071.000	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000
GR	1760.000	17670.000	1770.000	18830.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3110.000	0.130	8140.000	0.040	9516.000	0.035	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.460	36.000	9916.000	10051.000	1198.000	1198.000	1198.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2325.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000
GR	1760.000	3110.000	1760.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	8140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10005.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.300	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000
GR	1758.900	10191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	2785.000	0.120	4110.000	0.045	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000

Centerline Station at 10000

X1	5.750	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9605.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.500	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.300	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10368.000	1764.800	10376.000	1763.800	10430.000	1764.000	10465.000
GR	1764.000	10815.000	1760.500	10990.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17865.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.300	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10091.300	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000

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Centerline Station at 10000

X1	5.794	22.000	9911.000	10091.000	50.000	150.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	7.300	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9983.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9948.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

****** Bonanza Avenue ******
2* Debris Loading
Normal Bridge

Centerline Station at 10000

X1	5.813	36.000	9911.000	10091.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	7.300	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9985.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1762.500	9945.700	1762.500	9950.900
GR	1745.900	9951.000	1745.900	9980.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500
GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Centerline Station at 10000

X1	5.814	22.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1765.000	2780.000	1768.000	3790.000

GR	1764.300	4159.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000

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NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9605.000	0.050	9913.000	0.032
NH	10069.000	0.040	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	5.329	30.000	9913.000	10069.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.300	4650.000	1760.000	5405.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.800	9857.000	1761.400	9883.000	1760.300	9857.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1749.400	9966.000	1745.900	9973.000
GR	1745.900	10027.000	1760.100	10069.000	1759.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7995.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	15015.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	5.969	26.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1875.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	5888.000	1761.800	9897.000	1759.700	9513.000
GR	1751.300	9941.000	1752.000	9953.000	1752.000	9966.000	1749.400	9973.000	1749.400	10027.000
GR	1762.400	10069.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	9698.000	0.040	9939.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	6.169	48.000	9939.000	10054.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1780.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1769.100	9786.000	1766.900	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1760.700	10044.000	1764.900	10054.000
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10228.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000
NH	8.000	0.090	7425.000	0.130	9676.000	0.040	9949.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1784.000	1180.000	1780.000	1770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1765.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.500	10125.000	1772.800	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000

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QT	1.000	11760.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.090	8115.000	0.130	9946.000	0.045	10057.000	0.100	11980.000	0.040

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NH   16070.000       0.130   18375.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       6.100       0.000       0.000       0.000    9862.000   10297.000       0.000       0.000       0.000
                Upstream of confluence with Washington Ave Channel.
                ROB breakouts from upstream return at downstream xsec.
                Centerline Station at 10000
X1       6.400      34.000    9946.000   10057.000     300.000     270.000     292.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
GR    1784.000    1215.000    1780.000    2265.000    1776.000    6430.000    1776.000    8115.000    1776.000    9640.000
GR    1775.600    9710.000    1773.900    9772.000    1773.900    9799.000    1773.600    9810.000    1775.100    9862.000
GR    1775.000    9946.000    1767.100    9964.000    1767.100    9983.000    1766.400    9991.000    1766.400    9995.000
GR    1764.400   10009.000    1770.200   10033.000    1773.300   10057.000    1773.000   10073.000    1772.700   10087.000
GR    1774.000   10128.000    1772.600   10143.000    1772.600   10183.000    1772.600   10224.000    1766.600   10239.000
GR    1766.500   10247.000    1774.100   10268.000    1776.200   10297.000    1776.000   10850.000    1776.000   11980.000
GR    1776.000   13470.000    1778.900   16070.000    1780.000   17095.000    1784.000   18375.000       0.000       0.000

NH       7.000       0.090    8865.000       0.100    9932.000       0.045   10035.000       0.045   10610.000       0.100
NH   11340.000       0.045   15790.000       0.130   18305.000       0.000       0.000       0.000       0.000       0.000
                Centerline Station at 10000
X1       6.570      29.000    9932.000   10035.000     920.000     500.000     856.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
GR    1788.000      35.000    1784.000    1250.000    1780.000    4925.000    1780.000    8865.000    1777.800    9808.000
GR    1777.800    9828.000    1778.800    9894.000    1781.600    9932.000    1770.600    9945.000    1769.300    9972.000
GR    1769.300    9982.000    1768.500    9991.000    1768.500   10009.000    1773.300   10020.000    1773.300   10032.000
GR    1781.500   10035.000    1778.600   10061.000    1777.500   10085.000    1779.600   10129.000    1779.600   10224.000
GR    1776.300   10433.000    1776.000   10475.000    1776.000   10610.000    1780.000   11340.000    1780.000   15790.000
GR    1780.000   17135.000    1784.000   17805.000    1788.000   18025.000    1790.000   18305.000       0.000       0.000

NH       9.000       0.130    4690.000       0.100   13425.000       0.130   14809.000       0.030   14942.000       0.035
NH   15039.000       0.045   16195.000       0.100   16755.000       0.045   21140.000       0.130   22860.000       0.000
                Centerline Station at 15000
                Upstream of this xsec, 70% of LOB breakout from Reach 4
                returns to channel concurrently with channel peak Q.
X1       6.710      42.000   14942.000   15039.000     650.000     450.000     780.000       0.000       0.000       0.000
X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
X4       2.000    1790.000    5200.000    1785.000    5600.000       0.000       0.000       0.000       0.000       0.000
GR    1796.000    2680.000    1792.000    3960.000    1792.000    4690.000    1784.000    8200.000    1784.000   12020.000
GR    1784.000   13425.000    1780.000   14065.000    1780.000   14680.000    1777.400   14809.000    1777.600   14835.000
GR    1778.500   14910.000    1779.000   14914.000    1784.800   14942.000    1773.000   14956.000    1769.300   14987.000
GR    1769.300   14997.000    1769.300   15012.000    1771.900   15025.000    1784.800   15039.000    1781.900   15040.000
GR    1781.900   15071.000    1781.000   15110.000    1781.300   15136.000    1781.200   15150.000    1781.200   15167.000
GR    1780.100   15195.000    1782.100   15222.000    1782.100   15298.000    1781.800   15387.000    1779.800   15404.000
GR    1779.300   15461.000    1781.600   15472.000    1781.000   15531.000    1780.000   15640.000    1780.000   15710.000
GR    1782.000   16195.000    1782.000   16755.000    1784.000   21140.000    1784.000   21860.000    1788.000   22235.000
GR    1792.000   22575.000    1796.000   22860.000       0.000       0.000       0.000       0.000       0.000       0.000
EJ       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
1
   6-MAY-88     16:31:23                                                                                    PAGE   12

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *PROF 1

 CCHV=   0.100  CEHV=   0.300
 1490 NH CARD USED
 *SECNO 4.420

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1737.00 ELREA=     1737.60

                SECNO=River Mileage (above Advance Wastewater Treatment Plant)
                Starting Discharge for 950 is reduced by 870 cfs to account
                for upstream breakouts which do not return to the channel
                concurrently with the peak channel flow.
                Centerline Station at 10000
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     4.42     11.79   1735.90      0.00   1735.90   1737.12      1.22      0.00      0.00   1737.00
    12263.        0.   12263.        3.        0.      1386.        0.        0.        0.   1737.60
        0.        0.       8.        0.        0.     0.045     0.000     0.000   1724.20   9936.91
 0.004415      992.      992.      992.         3         0         0      0.00    166.50  10103.41

CCHV=   0.300  CEHV=   0.500
1490 NH CARD USED
*SECNO 4.437

3470 ENCROACHMENT STATIONS=    9747.0    10251.0  TYPE=      1  TARGET=     504.000
                Centerline Station at 10000
     4.44     12.31   1736.31      0.00   1736.31   1737.47      1.15      0.33      0.02   1736.00
    12263.       73.   12190.        1.       65.      1409.        2.        3.        0.   1736.00
        0.        1.       8.        0.        0.     0.045     0.100     0.000   1724.00   9811.60
 0.003175       90.       90.       90.         3         0         0      0.00    270.82  10082.42

*SECNO 4.433

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

3470 ENCROACHMENT STATIONS=    9747.0    10251.0  TYPE=      1  TARGET=     504.000
                Centerline Station at 10000
     4.44     12.16   1736.16      0.00   1736.16   1737.63      1.47      0.01      0.16   1736.00
    12263.        0.   12263.        0.        0.      1261.        0.        3.        0.   1736.00
        0.        0.       9.        0.        0.     0.045     0.100     0.000   1724.00   9814.39
 0.015982         1.        1.        1.         2         0         0    -70.17    260.70  10075.09

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   6-MAY-88     16:31:23                                                                    PAGE    13

    SECNO      DEPTH      QWSEL      QRIWS      WSELK      EG         HV         HL         QLOSS     BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TLA     LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IOC        ICONT      CORAR      TOPWID       ENDST

*SECNO 4.456

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

3470 ENCROACHMENT STATIONS=    9747.0    10251.0  TYPE=      1  TARGET=     504.000
                **** Nellis Boulevard ****
                1* Debris Loading
                Normal Bridge
                Centerline Station at 10000
     4.46     14.16   1738.16      0.00   1738.16   1739.49      1.33      1.82      0.04   1736.00
    12263.      250.   11873.      140.       78.      1265.       96.        6.        1.   1736.00
        0.        3.       5.        1.        0.     0.045     0.100     0.000   1724.00   9776.29
 0.021721       98.       98.       93.         5         0         0   -506.03    474.71  10251.00

*SECNO 4.457

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=    9747.0    10251.0  TYPE=      1  TARGET=     504.000
                Centerline Station at 10000
     4.46     15.22   1739.22      0.00   1739.22   1739.73      0.52      0.00      0.24   1736.00
    12263.     1041.   10946.      277.       499.     1799.      350.        6.        1.   1736.00
        0.        2.       6.        0.        0.     0.045     0.100     0.000   1724.00   9756.24
 0.001135         1.        1.        1.         3         0         0      0.00    494.76  10251.00

1490 NH CARD USED
*SECNO 4.470
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5265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9743.0 10072.0 TYPE= 1 TARGET= 332.000
Centerline Station at 10000

4.47	14.25	1739.05	0.00	1739.05	1740.12	1.07	0.11	0.27	1736.90
11263.	114.	11145.	4.	74.	1336.	6.	9.	2.	1738.80
0.21	1.54	8.34	0.76	0.050	0.045	0.045	0.000	1724.80	9780.86
0.003388	60.	60.	60.	2	0	0	0.00	290.06	10072.30

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.570

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9473.0 10403.0 TYPE= 1 TARGET= 933.000
Centerline Station at 10000
From 4.57 to 4.75, limit 050 expansion to Nellis on LOB and
to 1:1 limits on ROB starting above 4.75.

4.57	16.18	1741.18	0.00	1741.18	1741.52	0.35	1.33	0.07	1739.10
12130.	759.	8899.	2472.	588.	1651.	1207.	42.	9.	1738.80
0.04	1.29	5.39	2.05	0.065	0.055	0.070	0.000	1725.00	9470.00
0.001705	350.	562.	800.	3	0	0	0.00	933.00	10403.00

1490 NH CARD USED
*SECNO 4.690

3470 ENCROACHMENT STATIONS= 9320.0 10600.0 TYPE= 1 TARGET= 1280.000
Centerline Station at 10000

4.68	16.77	1741.97	0.00	1741.97	1742.56	0.59	0.96	0.07	1740.00
12130.	965.	10385.	781.	1216.	1565.	865.	82.	21.	1740.00
0.07	0.79	6.64	0.90	0.130	0.100	0.100	0.000	1725.20	9320.00
0.001950	350.	540.	550.	2	0	0	0.00	1280.00	10600.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.695

3470 ENCROACHMENT STATIONS= 9399.0 10300.0 TYPE= 1 TARGET= 901.000
Centerline Station at 10000

4.70	16.91	1742.51	0.00	1742.51	1742.75	0.24	0.09	0.10	1740.30
12130.	417.	11507.	205.	1019.	2829.	401.	91.	23.	1740.50
0.08	0.41	4.07	0.51	0.130	0.050	0.100	0.000	1725.60	9399.00
0.000518	100.	100.	100.	2	0	0	0.00	901.00	10300.00

*SECNO 4.696

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

3470 ENCROACHMENT STATIONS= 9399.0 10300.0 TYPE= 1 TARGET= 901.000

Centerline Station at 10000

4.70	16.81	1742.41	0.00	1742.41	1742.85	0.45	0.00	0.10	1740.30
12130.	1891.	8860.	1379.	967.	1448.	482.	91.	23.	1740.00
3.08	1.95	6.12	2.85	0.130	0.050	0.100	0.000	1725.60	9399.00
0.012644	1.	1.	1.	2	0	0	-1303.50	901.00	10300.00

*SECNO 4.714

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

3470 ENCROACHMENT STATIONS= 9399.0 10200.0 TYPE= 1 TARGET= 801.000

**** Charleston Boulevard ****
2* Debris Loading
Normal Bridge

Centerline Station at 10000

4.71	17.95	1743.55	0.00	1743.55	1743.99	0.34	1.00	0.03	1740.30
12130.	3416.	8356.	353.	1558.	1544.	179.	98.	25.	1740.00
0.08	2.19	5.41	2.00	0.130	0.050	0.100	0.000	1725.60	9399.00
0.008458	98.	98.	98.	3	0	0	-1303.50	788.44	10187.44

*SECNO 4.715

3470 ENCROACHMENT STATIONS= 9399.0 10200.0 TYPE= 1 TARGET= 801.000

Centerline Station at 10000

4.72	18.14	1743.74	0.00	1743.74	1743.93	0.20	0.00	0.04	1740.30
12130.	807.	11255.	68.	1651.	3043.	169.	98.	25.	1740.50
0.08	0.49	3.70	0.40	0.130	0.050	0.100	0.000	1725.60	9399.00
0.000389	1.	1.	1.	2	0	0	0.00	792.47	10191.47

1490 NH CARD USED
*SECNO 4.720

3301 HV CHANGED MORE THAN HVINS

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCR	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9300.0 10240.0 TYPE= 1 TARGET= 940.000

Centerline Station at 10000

4.72	15.21	1743.51	0.30	1743.51	1744.22	0.70	0.03	0.25	1741.90
12130.	656.	11474.	0.	567.	1659.	0.	102.	26.	1743.50
0.08	1.16	6.92	0.00	0.040	0.035	0.100	0.000	1728.30	9300.00
0.001066	50.	50.	50.	3	0	0	0.00	797.60	10097.60

CCHV= 3.100 CEHV= 0.300
*SECNO 4.750

3470 ENCROACHMENT STATIONS= 9300.0 10240.0 TYPE= 1 TARGET= 940.000

Centerline Station at 10000

4.75	15.50	1743.80	0.00	1743.80	1744.42	0.61	0.19	0.01	1741.90
12130.	993.	11134.	3.	756.	1700.	5.	111.	29.	1743.50

0.09	1.31	6.55	0.51	0.050	0.045	0.027	0.000	1728.30	9300.00
0.001530	150.	150.	150.	2	0	0	0.00	827.14	10127.14

1490 NH CARD USED
*SECNO 4.940

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1745.60 ELREA= 1747.90

Centerline Station at 10000

4.94	14.88	1744.98	0.00	1744.98	1745.90	0.92	1.39	0.09	1745.60
12130.	0.	12130.	0.	0.	1579.	0.	153.	38.	1747.90
0.13	0.00	7.68	0.00	0.089	0.035	0.027	0.000	1730.10	9913.32
0.001381	750.	965.	965.	3	0	0	0.00	140.53	10053.84

1490 NH CARD USED
*SECNO 5.180

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1750.50 ELREA= 1750.80

Centerline Station at 10000

5.18	14.65	1746.75	0.00	1746.75	1747.82	1.06	1.88	0.04	1750.50
12130.	0.	12130.	0.	0.	1465.	0.	198.	42.	1750.80
0.17	0.00	8.28	0.00	0.089	0.035	0.027	0.000	1732.10	9911.51
0.001571	1100.	1277.	1277.	2	0	0	0.00	125.19	10036.70

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.205

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1750.20 ELREA= 1749.90

Centerline Station at 10000

5.20	14.61	1747.51	0.00	1747.51	1748.12	0.61	0.17	0.14	1750.20
12130.	0.	12130.	0.	0.	1930.	0.	204.	42.	1749.90
0.18	0.00	6.29	0.00	0.089	0.035	0.027	0.000	1732.90	9920.13
0.000841	150.	150.	150.	2	0	0	0.00	160.22	10080.36

*SECNO 5.206

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.58 MAX ELLC= 1750.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1748.60 ELREA= 1748.60

Centerline Station at 10000

5.21	14.58	1747.48	0.00	1747.48	1748.15	0.67	0.00	0.03	1748.60
12130.	0.	12130.	0.	0.	1844.	0.	204.	42.	1748.60
0.18	0.00	6.58	0.00	0.089	0.035	0.027	0.000	1732.90	9917.50
0.001958	1.	1.	1.	2	0	0	0.00	159.35	10082.50

*SECNO 5.224

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1748.60 ELREA= 1748.60

**** Stewart Avenue ****
2* Debris Loading
Normal Bridge

Centerline Station at 10000

5.22	14.51	1747.61	0.00	1747.61	1748.47	0.85	0.22	0.09	1748.60
12130.	0.	12130.	0.	0.	1638.	0.	208.	43.	1748.60
0.18	0.00	7.41	0.00	0.089	0.035	0.027	0.000	1733.10	9917.10
0.002697	98.	98.	98.	2	0	0	0.00	144.06	10082.90

*SECNO 5.225

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1750.20 ELREA= 1749.90

Centerline Station at 10000

5.22	14.86	1747.96	0.00	1747.96	1748.55	0.59	0.00	0.08	1750.20
12130.	0.	12130.	0.	0.	1976.	0.	208.	43.	1749.90
0.18	0.00	6.14	0.00	0.089	0.035	0.027	0.000	1733.10	9919.32
0.000788	1.	1.	1.	2	0	0	0.00	161.88	10081.20

1490 NH CARD USED
*SECNO 5.240

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1751.50 ELREA= 1751.80

Centerline Station at 10000

5.24	14.69	1747.79	0.00	1747.79	1748.85	1.06	0.06	0.24	1751.50
12130.	0.	12130.	0.	0.	1470.	0.	210.	43.	1751.80
0.18	0.00	8.25	0.00	0.089	0.035	0.027	0.000	1733.10	9911.45
0.001557	63.	63.	63.	2	0	0	0.00	125.28	10036.73

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.460

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1756.20 ELREA= 1758.00

Centerline Station at 10000

5.46	9.13	1750.53	1750.53	1750.53	1754.02	3.49	3.84	0.73	1756.20
12130.	0.	12130.	0.	0.	809.	0.	242.	46.	1758.00
0.23	0.00	14.99	0.10	0.106	0.035	0.130	0.000	1741.40	9928.89
0.010031	1198.	1198.	1198.	5	17	0	0.00	118.00	10046.90

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 5.750

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1758.60 ELREA= 1763.80

Centerline Station at 10000

5.75	12.23	1757.03	0.00	1757.03	1758.44	1.40	4.20	0.21	1758.60
12130.	0.	12130.	0.	0.	1276.	0.	278.	51.	1763.80
0.25	0.00	9.51	0.00	0.106	0.025	0.130	0.000	1744.80	9933.30
0.001258	1532.	1532.	1532.	3	0	0	0.00	126.90	10060.20

*SECNO 5.780

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1758.60 ELREA= 1763.80

Centerline Station at 10000

5.78	12.49	1757.29	0.00	1757.29	1758.63	1.33	0.18	0.01	1758.60
12130.	0.	12130.	0.	0.	1309.	0.	283.	51.	1763.80
0.25	0.00	9.27	0.00	0.106	0.025	0.130	0.000	1744.80	9932.75
0.001167	150.	150.	150.	2	0	0	0.00	127.87	10060.62

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1764.40 ELREA= 1763.50

Centerline Station at 10000

5.79	12.28	1757.98	0.00	1757.98	1758.83	0.86	0.06	0.14	1764.40
12130.	0.	12130.	0.	0.	1634.	0.	285.	51.	1763.50
0.26	0.00	7.42	0.00	0.106	0.025	0.130	0.000	1745.70	9921.34
0.000722	50.	70.	150.	2	0	0	0.00	157.35	10078.69

*SECNO 5.795

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XML	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1764.40 ELREA= 1763.50

Centerline Station at 10000

5.80	12.22	1757.92	0.00	1757.92	1758.89	0.98	0.00	0.06	1764.40
12130.	0.	12130.	0.	0.	1529.	0.	285.	51.	1763.50
0.25	0.00	7.93	0.00	0.106	0.025	0.130	0.000	1745.70	9922.00
0.001624	1.	1.	1.	2	0	0	0.00	151.00	10078.02

*SECNO 5.813

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1764.40 ELREA= 1763.50

**** Bonanza Avenue ****
2* Debris Loading
Normal Bridge
Centerline Station at 10000

5.81	12.06	1757.96	0.00	1757.96	1759.22	1.26	0.19	0.14	1764.40
12130.	0.	12130.	0.	0.	1347.	0.	288.	52.	1763.50
0.26	0.00	9.00	0.00	0.106	0.025	0.130	0.000	1745.90	9921.47
0.002270	98.	98.	98.	2	0	0	0.00	136.06	10078.55

*SECNO 5.814

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1764.40 ELREA= 1763.50

Centerline Station at 10000

5.81	12.68	1758.58	0.00	1758.58	1759.36	0.79	0.00	0.14	1764.40
12130.	0.	12130.	0.	0.	1702.	0.	288.	52.	1763.50
0.26	0.00	7.13	0.00	0.106	0.025	0.130	0.000	1745.90	9920.24
0.000643	1.	1.	1.	2	0	0	0.00	159.55	10079.79

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 5.820

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1760.70 ELREA= 1760.10

Centerline Station at 10000

5.82	12.44	1758.34	0.00	1758.34	1759.67	1.33	0.03	0.27	1760.70
12130.	0.	12130.	0.	0.	1309.	0.	289.	52.	1760.10
0.26	0.00	9.26	0.00	0.106	0.032	0.130	0.000	1745.90	9918.38
0.002223	30.	30.	30.	2	0	0	0.00	145.40	10063.78

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.960

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1759.70 ELREA= 1762.40

Centerline Station at 10000

5.96	10.66	1760.06	0.00	1760.06	1761.79	1.73	2.01	0.12	1759.70
12130.	0.	12130.	0.	0.	1148.	1.	310.	54.	1762.40
0.28	0.56	10.57	0.00	0.050	0.032	0.130	0.000	1749.40	9910.26
0.003480	750.	730.	650.	3	0	0	0.00	151.18	10061.44

1490 NH CARD USED
*SECNO 6.160

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1763.00 ELREA= 1764.90

Centerline Station at 10000

6.16	12.01	1763.81	0.00	1763.81	1766.51	2.70	4.43	0.29	1763.00
12130.	48.	12092.	0.	18.	914.	0.	335.	58.	1764.90
0.30	2.67	13.21	0.00	0.040	0.032	0.130	0.000	1751.80	9885.78
0.005145	1056.	1056.	1055.	3	0	0	0.00	131.45	10051.40

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 6.350

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1771.80 ELREA= 1771.80

Centerline Station at 10000

6.35	10.77	1770.97	0.00	1770.97	1774.04	3.08	7.42	0.11	1771.60
12130.	0.	12130.	0.	0.	862.	0.	356.	60.	1771.80
0.32	0.00	14.07	0.00	0.040	0.045	0.040	0.000	1760.20	9550.78
0.011501	1100.	1004.	950.	3	0	0	0.00	104.47	10055.25

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1490 NH CARD USED
*SECNO 6.400

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9862.0 10297.0 TYPE= 1 TARGET= 435.000
Upstream of confluence with Washington Ave Channel.
ROB breakouts from upstream return at downstream xsec.
Centerline Station at 10000

6.40	9.22	1775.62	1775.14	1775.62	1777.36	1.74	3.18	0.13	1775.00
11760.	39.	8954.	2767.	48.	750.	741.	364.	62.	1773.30
0.33	0.81	11.94	3.73	0.130	0.045	0.100	0.000	1766.40	9862.00
0.010498	300.	292.	273.	6	15	0	0.00	427.05	10289.05

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1490 NH CARD USED
*SECNO 6.570

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1781.60 ELREA= 1781.60

Centerline Station at 10000

6.57	13.01	1781.51	0.00	1781.51	1783.35	1.84	5.96	0.03	1781.60
11760.	0.	11760.	0.	0.	1080.	0.	386.	66.	1781.60
0.35	0.00	10.89	0.00	0.130	0.045	0.100	0.000	1768.50	9932.10
0.005400	920.	856.	500.	2	0	0	0.00	102.87	10034.97

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1490 NH CARD USED
*SECNO 6.710

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1784.80 ELREA= 1784.80

Centerline station at 15000
Upstream of this xsec, 70% of LOB breakout from Reach 4
returns to channel concurrently with channel peak Q.

6.71	15.18	1784.48	0.00	1784.48	1786.14	1.56	2.77	0.02	1784.80
11760.	0.	11760.	0.	0.	1137.	0.	406.	68.	1784.80
0.37	0.00	10.35	0.00	0.130	0.035	0.100	0.000	1769.30	14942.39
0.002506	650.	780.	450.	3	0	0	0.00	96.26	15038.65

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TN ROB BREAKOUT UPSTREAM OF WELLIS AVE

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
582.4	1.49	2.38	1.15	520.0	507.9

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
866.55	866.59	0.01	866.55	866.59	0.01	5	1738.162	1741.177	4.456	4.570

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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 50-YE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.420	0.00	0.00	0.00	1724.20	12263.45	1735.90	0.00	1737.12	44.15	8.85	1386.25	1845.68
4.437	90.00	0.00	0.00	1724.00	12263.45	1736.31	0.00	1737.47	31.75	8.65	1477.14	2176.30
4.438	1.00	1737.50	1739.70	1724.00	12263.45	1736.16	0.00	1737.63	159.82	9.73	1260.60	970.06
4.456	98.00	1737.50	1739.70	1724.00	12263.45	1738.16	0.00	1739.49	217.21	9.38	1439.61	832.10
4.457	1.00	0.00	0.00	1724.00	12263.45	1739.22	0.00	1739.73	11.35	6.09	2647.34	3639.94
4.470	60.00	0.00	0.00	1724.80	11263.45	1739.05	0.00	1740.12	33.88	8.34	1415.63	1935.07
4.570	562.00	0.00	0.00	1725.00	12130.00	1741.18	0.00	1741.52	17.05	5.39	3445.59	2937.33
4.680	540.00	0.00	0.00	1725.20	12130.00	1741.97	0.00	1742.56	19.50	6.64	3645.64	2747.21
4.695	100.00	0.00	0.00	1725.60	12130.00	1742.51	0.00	1742.75	5.18	4.07	4248.45	5327.85
4.696	1.00	1740.30	1740.90	1725.60	12130.00	1742.41	0.00	1742.85	126.44	6.12	2897.24	1078.72
4.714	98.00	1740.30	1740.90	1725.60	12130.00	1743.55	0.00	1743.89	84.58	5.41	3280.83	1318.98
4.715	1.00	0.00	0.00	1725.60	12130.00	1743.74	0.00	1743.93	3.89	3.70	4862.89	6151.06

4.720	50.00	0.00	0.00	1728.30	12130.00	1743.51	0.00	1744.22	10.66	6.92	2225.75	3714.98
4.750	150.00	0.00	0.00	1728.30	12130.00	1743.80	0.00	1744.42	15.30	6.55	2459.88	3101.26
4.940	965.00	0.00	0.00	1730.10	12130.00	1744.98	0.00	1745.90	13.81	7.68	1578.51	3264.54
5.180	1277.00	0.00	0.00	1732.10	12130.00	1746.75	0.00	1747.82	15.71	8.28	1465.15	3060.02
5.235	150.00	0.00	0.00	1732.90	12130.00	1747.51	0.00	1748.12	8.41	6.29	1929.98	4182.81

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	5.206	1.00	1749.50	1750.70	1732.90	12130.00	1747.48	0.00	1748.15	19.58	6.58	1844.08	2741.35
	5.224	98.00	1749.50	1750.70	1733.10	12130.00	1747.61	0.00	1748.47	26.97	7.41	1637.67	2335.79
	5.225	1.00	0.00	0.00	1733.10	12130.00	1747.96	0.00	1748.55	7.88	6.14	1975.98	4320.96
	5.240	60.00	0.00	0.00	1733.10	12130.00	1747.79	0.00	1748.85	15.57	8.25	1469.74	3074.16
*	5.460	1198.00	0.00	0.00	1741.40	12130.00	1750.53	1750.53	1754.02	100.31	14.99	809.10	1211.12
	5.750	1532.00	0.00	0.00	1744.80	12130.00	1757.03	0.00	1758.44	12.58	9.51	1275.50	3420.22
	5.730	150.00	0.00	0.00	1744.80	12130.00	1757.29	0.00	1758.63	11.67	9.27	1308.75	3550.59
	5.794	70.00	0.00	0.00	1745.70	12130.00	1757.98	0.00	1758.83	7.22	7.42	1634.49	4514.04
	5.795	1.00	1763.50	1764.40	1745.70	12130.00	1757.92	0.00	1758.89	16.24	7.93	1528.91	3009.79
	5.813	98.00	1763.50	1764.40	1745.90	12130.00	1757.96	0.00	1759.22	22.70	9.00	1347.23	2545.84
	5.814	1.00	0.00	0.00	1745.90	12130.00	1758.58	0.00	1759.36	6.43	7.13	1702.21	4784.72
	5.820	30.00	0.00	0.00	1745.90	12130.00	1758.34	0.00	1759.67	22.23	9.26	1309.38	2572.51
	5.960	730.00	0.00	0.00	1749.40	12130.00	1760.06	0.00	1761.79	34.80	10.57	1148.58	2056.10
	6.160	1056.00	0.00	0.00	1751.80	12130.00	1763.81	0.00	1766.51	51.45	13.21	932.35	1691.04
	6.350	1004.00	0.00	0.00	1760.20	12130.00	1770.97	0.00	1774.04	115.01	14.07	861.89	1131.08
	6.430	292.00	0.00	0.00	1766.40	11760.00	1775.62	1775.14	1777.36	104.98	11.94	1539.19	1147.79
	6.570	856.00	0.00	0.00	1768.50	11760.00	1781.51	0.00	1783.35	54.00	10.89	1080.26	1600.31
	6.710	780.00	0.00	0.00	1769.30	11760.00	1784.48	0.00	1786.14	25.06	10.35	1136.57	2349.07

LAS VEGAS WASH - 50-YE
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.420	12263.45	1735.90	0.00	0.00	0.00	166.50	0.00
4.437	12263.45	1736.31	0.00	0.41	0.00	270.82	90.00

4.454	12263.45	1738.16	0.00	-0.15	0.00	269.70	1.00
4.456	12263.45	1738.16	0.00	2.00	0.00	474.71	98.00
4.457	12263.45	1739.22	0.00	1.05	0.00	494.76	1.00
4.470	11263.45	1739.05	0.00	-0.17	0.00	290.06	60.00
4.570	12130.00	1741.18	0.00	2.13	0.00	933.00	562.00
4.680	12130.00	1741.97	0.00	0.79	0.00	1280.00	540.00
4.695	12130.00	1742.51	0.00	0.54	0.00	901.00	100.00
4.696	12130.00	1742.41	0.00	-0.10	0.00	901.00	1.00
4.714	12130.00	1743.55	0.00	1.15	0.00	788.44	98.00
4.715	12130.00	1743.74	0.00	0.19	0.00	792.47	1.00
4.720	12130.00	1743.51	0.00	-0.22	0.00	797.60	50.00
4.750	12130.00	1743.80	0.00	0.29	0.00	827.14	150.00
4.940	12130.00	1744.98	0.00	1.18	0.00	140.53	965.00
5.130	12130.00	1746.75	0.00	1.78	0.00	125.19	1277.00
5.205	12130.00	1747.51	0.00	0.75	0.00	160.22	150.00
5.206	12130.00	1747.48	0.00	-0.03	0.00	159.35	1.00
5.224	12130.00	1747.61	0.00	0.13	0.00	144.06	98.00
5.225	12130.00	1747.96	0.00	0.35	0.00	161.69	1.00
5.240	12130.00	1747.79	0.00	-0.17	0.00	125.28	60.00
5.450	12130.00	1750.53	0.00	2.74	0.00	118.00	1198.00
5.750	12130.00	1757.03	0.00	6.50	0.00	126.90	1532.00
5.780	12130.00	1757.29	0.00	0.26	0.00	127.87	150.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5.794	12130.00	1757.98	0.00	0.69	0.00	157.35	70.00
5.795	12130.00	1757.92	0.00	-0.06	0.00	151.00	1.00
5.813	12130.00	1757.96	0.00	0.05	0.00	136.06	98.00
5.814	12130.00	1758.58	0.00	0.61	0.00	159.55	1.00
5.820	12130.00	1758.34	0.00	-0.24	0.00	145.40	30.00
5.960	12130.00	1760.06	0.00	1.72	0.00	151.18	730.00
6.150	12130.00	1763.81	0.00	3.75	0.00	131.45	1056.00
6.350	12130.00	1770.97	0.00	7.16	0.00	104.47	1004.00
6.400	11760.00	1775.62	0.00	4.65	0.00	427.05	292.00

6.570	11760.00	1761.51	0.00	5.89	0.00	102.87	856.00	
6.710	11760.00	1784.48	0.00	2.96	0.00	96.26	780.00	

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 5.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.460 PROFILE= 1 MINIMUM SPECIFIC ENERGY


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   3-MAY-88 TIME   10:30:00          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X      X  XXXXXXX   XXXXX                 XXXXX
X      X  X        X     X               X     X
X      X  X        X                     X     X
XXXXXXXX  XXXX     X           XXXXX     XXXXX
X      X  X        X                     X
X      X  X        X     X               X
X      X  XXXXXXX   XXXXX                XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR (MIDDLE REACH)                    12/87     SRM

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
        0.       2.        0.        0.  0.000000      0.00      0.5        0.  1733.900     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
       -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
      150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC        0.050     0.027     0.045     0.100     0.300     0.000     0.000     0.000     0.000     0.000
GT        1.000  7800.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NH        5.000     0.045  3880.000     0.130  8050.000     0.050  9935.000     0.045 10132.000     0.100
NH    15890.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 10000
X1        4.420    27.000  9935.000 10132.000   992.000   992.000   992.000     0.000     0.000     0.000
GR     1748.000  2045.000  1744.000  2335.000  1740.000  3060.000  1740.000  3515.000  1736.000  3675.000
GR     1736.000  3880.000  1736.000  6450.000  1736.500  8050.000  1739.700  9731.000  1739.700  9794.000
GR     1737.400  9813.000  1737.000  9935.000  1724.900  9956.000  1724.800 10000.000  1724.200 10052.000
GR     1732.300 10072.000  1735.400 10095.000  1737.600 10132.000  1737.600 10179.000  1738.000 10236.000
GR     1736.000 10750.000  1735.600 11580.000  1736.000 12365.000  1740.000 13440.000  1744.000 14870.000
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GR	1744.000	15500.000	1743.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3896.000	0.130	8066.000	0.050	9933.000	0.045	10067.000	0.100
NH	15905.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.438	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9954.000	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9984.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

**** NELLIS BOULEVARD ****
1' DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1736.000	1736.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1736.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000
GR	1736.000	10013.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10147.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

GT	1.000	6800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10057.000	0.050
NH	11360.000	0.100	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.478	41.000	9919.000	10050.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1752.000	1595.000	1748.000	2335.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	8200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9903.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.300	10050.000	1738.800	10072.000	1737.100	10078.000

GR	1737.700	10230.000	1737.100	10310.000	1738.400	10373.000	1739.400	10392.000	1737.300	10397.000
GR	1738.400	10434.000	1736.000	11360.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000

GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.100	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	9914.000	0.055
NH	10061.000	0.070	10493.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.570	43.000	9914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1756.000	1380.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1736.000	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1738.800	9862.000	1737.300	9886.000	1739.100	9914.000	1736.900	9930.000	1725.600	9953.000
GR	1725.600	9974.000	1727.100	9989.000	1725.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.300	10040.000	1727.500	10051.000	1728.800	10061.000	1728.800	10083.000
GR	1737.100	10089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384.000	1739.400	10403.000
GR	1737.300	10408.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1748.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10050.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.660	28.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
GR	1760.000	1210.000	1756.000	1560.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1740.000	2770.000	1740.000	2855.000	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000
GR	1740.000	9323.000	1740.000	9935.000	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000
GR	1725.200	9989.000	1725.200	10010.000	1728.900	10012.000	1728.100	10025.000	1733.800	10029.000
GR	1737.500	10040.000	1738.800	10050.000	1740.000	10065.000	1744.000	13035.000	1748.000	13975.000
GR	1752.000	14925.000	1756.000	15500.000	1760.000	16450.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10067.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.695	23.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1735.000	1735.000	0.000
GR	1760.000	1239.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.696	37.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9930.000	1733.000	9931.500	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300
GR	1733.000	9977.700	1725.600	9977.800	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900
GR	1725.600	10024.000	1725.600	10068.600	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200
GR	1733.000	10086.800	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14569.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	0.000	0.000	0.000	0.000	9661.000	10200.000	0.000	0.000

**** CHARLESTON BOULEVARD ****
2° DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.714	37.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	6.000	9561.300	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9928.000	1733.000	9933.500	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200
GR	1733.000	9979.700	1725.600	9979.800	1725.600	10020.400	1733.000	10020.500	1733.000	10025.900
GR	1725.600	10026.000	1725.600	10066.600	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200
GR	1733.000	10086.800	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14569.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9661.000	10200.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.715	23.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1740.500	1740.500	0.000
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.720	35.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	8875.000	1744.000	10240.000	1744.000	0.000	0.000	0.000
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000
GR	1740.000	2950.000	1740.000	3035.000	1744.000	3050.000	1744.000	3880.000	1740.000	4875.000
GR	1740.000	6390.000	1744.000	7295.000	1744.000	8875.000	1742.300	9833.000	1741.900	9954.000
GR	1729.600	9976.000	1729.200	9988.000	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000
GR	1729.600	10028.000	1729.900	10055.000	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000
GR	1743.500	10096.000	1743.900	10137.000	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000
GR	1744.000	13400.000	1748.000	14690.000	1752.000	15375.000	1756.000	15925.000	1760.000	16450.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	8875.000	1744.000	10240.000	1744.000	0.000	0.000	0.000

NH	6.000	0.130	3095.000	0.045	3280.000	0.100	7641.000	0.045	9897.000	0.035
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000
GR	1760.000	1720.000	1756.000	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9889.000
GR	1745.600	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000
GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000
GR	1744.000	13557.000	1748.000	14302.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	3500.000	0.045	3575.000	0.130	5425.000	0.045	9320.000	0.065
NH	9905.000	0.035	10040.000	0.130	17355.000	0.040	18900.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.160	29.000	9905.000	10040.000	1180.000	1277.000	1277.000	0.000	0.000	0.000
GR	1768.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1748.000	3500.000
GR	1748.000	3555.000	1752.000	3575.000	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000
GR	1748.000	9330.000	1753.500	9803.000	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000

GR	1732.100	9937.000	1732.300	9978.000	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000
GR	1735.900	10017.000	1737.300	10029.000	1750.800	10040.000	1752.700	10071.000	1752.000	10200.000
GR	1752.000	14875.000	1756.000	15780.000	1760.000	17355.000	1770.000	18900.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045
NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17630.000	0.040	18935.000	0.000
		CENTERLINE STATION AT 10000.								
X1	5.205	24.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	1772.000	1950.000	1763.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1732.900	9948.000	1732.900	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.206	38.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000
GR	1732.900	9950.000	1748.600	9950.100	1748.600	9951.600	1732.900	9951.600	1732.900	9982.800
GR	1748.600	9982.900	1748.600	9984.300	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700
GR	1748.600	10017.100	1732.900	10017.200	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900
GR	1732.900	10050.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

**** STEWART AVENUE ****

2' DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	5.224	38.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000
GR	1733.100	9948.000	1748.600	9948.100	1748.600	9953.600	1733.100	9953.600	1733.100	9980.800
GR	1746.600	9980.900	1748.600	9986.300	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700
GR	1748.600	10019.100	1733.100	10019.200	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900
GR	1733.100	10052.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.225	24.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1733.100	9948.000	1733.100	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
NH	10.000	0.040	2530.000	0.100	3420.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.030	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.240	32.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1772.000	2035.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3432.000	1748.000	3445.000	1748.000	3515.000	1752.000	3530.000	1752.000	3725.000
GR	1748.000	5155.000	1748.000	6415.000	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000
GR	1751.800	9826.000	1751.900	9875.000	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000
GR	1734.700	9988.000	1733.300	9997.000	1733.300	10002.000	1736.500	10017.000	1728.300	10029.000
GR	1751.800	10040.000	1754.700	10071.000	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000
GR	1760.000	17670.000	1770.000	18830.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.345	3110.000	0.130	8140.000	0.040	9916.000	0.035	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.460	36.000	9916.000	10051.000	1198.000	1198.000	1198.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2325.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000
GR	1760.000	3110.000	1760.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	6140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10065.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.000	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000
GR	1758.900	11191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.345	2785.000	0.120	4110.000	0.045	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.756	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9685.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.600	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.200	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10368.000	1764.800	10376.000	1762.800	10430.000	1764.000	10465.000
GR	1764.000	10815.000	1760.500	10990.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17865.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10091.000	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.794	22.000	9911.000	10091.000	50.000	150.000	70.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9983.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9948.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		**** BONANZA AVENUE ****								
		2* DEBRIS LOADING								
		NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	5.813	36.000	9911.000	10091.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9985.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1762.500	9945.700	1762.500	9950.900
GR	1745.900	9951.000	1745.900	9980.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500

GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.814	22.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9605.000	0.050	9913.000	0.032
NH	10069.000	0.045	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.820	30.000	9913.000	10069.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4551.000	1760.000	5405.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.800	9857.000	1761.400	9883.000	1760.300	9897.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1749.400	9966.000	1745.900	9973.000
GR	1745.900	10027.000	1760.100	10069.000	1759.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7555.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	15015.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.960	25.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
GR	1776.000	1875.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	9888.000	1761.800	9897.000	1759.700	9913.000
GR	1751.800	9941.000	1752.100	9953.000	1752.000	9966.000	1749.400	9973.000	1745.400	10027.000
GR	1762.400	10069.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	9698.000	0.040	9929.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.160	48.000	9939.000	10054.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
GR	1768.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1769.100	9786.000	1766.900	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1760.700	10044.000	1764.900	10054.000
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10228.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000

NH	8.000	0.090	7425.000	0.130	9678.000	0.040	9949.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000

GR	1764.000	1180.000	1780.000	1770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.600	10125.000	1772.800	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000
NH	6.000	0.050	8115.000	0.130	9946.000	0.045	10057.000	0.100	11980.000	0.040
NH	16070.000	0.130	18375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.400	34.000	9946.000	10057.000	300.000	270.000	292.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9862.000	1775.100	10128.000	1774.000	0.000	0.000	0.000
GR	1784.000	1215.000	1780.000	2265.000	1776.000	6430.000	1776.000	8115.000	1776.000	9640.000
GR	1775.600	9710.000	1773.900	9772.000	1773.900	9799.000	1772.600	9810.000	1775.100	9862.000
GR	1775.000	9946.000	1767.100	9964.000	1767.100	9983.000	1766.400	9991.000	1766.400	9995.000
GR	1766.400	10009.000	1770.200	10022.000	1773.300	10057.000	1773.000	10073.000	1772.700	10087.000
GR	1774.000	10128.000	1772.600	10143.000	1772.600	10183.000	1772.600	10224.000	1766.600	10239.000
GR	1766.600	10247.000	1774.100	10268.000	1776.200	10297.000	1776.000	10850.000	1776.000	11980.000
GR	1776.000	13470.000	1778.900	16070.000	1780.000	17095.000	1784.000	18375.000	0.000	0.000
NH	7.000	0.090	8865.000	0.100	9932.000	0.045	10035.000	0.045	10610.000	0.100
NH	11340.000	0.045	15790.000	0.130	18305.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.576	29.000	9932.000	10035.000	520.000	500.000	856.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1788.000	35.000	1784.000	1250.000	1780.000	4925.000	1780.000	8865.000	1777.800	9808.000
GR	1777.800	9828.000	1778.800	9894.000	1781.600	9932.000	1770.600	9945.000	1769.300	9972.000
GR	1769.300	9982.000	1768.500	9991.000	1768.500	10009.000	1773.300	10020.000	1773.300	10032.000
GR	1781.600	10035.000	1773.600	10061.000	1777.500	10085.000	1779.600	10129.000	1779.600	10224.000
GR	1776.800	10433.000	1776.000	10475.000	1776.000	10610.000	1780.000	11340.000	1780.000	15790.000
GR	1780.000	17135.000	1784.000	17805.000	1788.000	18025.000	1790.000	18305.000	0.000	0.000
NH	9.000	0.130	4690.000	0.100	13425.000	0.130	14809.000	0.030	14942.000	0.035
NH	15039.000	0.045	16195.000	0.100	16755.000	0.045	21140.000	0.130	22860.000	0.000
		CENTERLINE STATION AT 15000								
X1	6.715	42.000	14942.000	15039.000	650.000	450.000	780.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	14942.000	1784.800	15039.000	1784.800	0.000	0.000	0.000
GR	1796.000	2680.000	1792.000	3960.000	1792.000	4690.000	1784.000	8200.000	1784.000	12020.000
GR	1784.000	13425.000	1780.000	14065.000	1780.000	14680.000	1777.400	14809.000	1777.600	14835.000
GR	1778.500	14910.000	1779.000	14914.000	1784.800	14942.000	1773.000	14956.000	1769.300	14987.000
GR	1769.300	14997.000	1769.300	15012.000	1771.900	15025.000	1784.800	15039.000	1781.500	15040.000
GR	1781.900	15071.000	1781.000	15110.000	1781.300	15136.000	1781.200	15150.000	1781.200	15167.000
GR	1780.000	15195.000	1782.100	15222.000	1782.100	15298.000	1781.800	15387.000	1779.800	15404.000
GR	1779.800	15461.000	1781.600	15472.000	1781.000	15531.000	1780.000	15640.000	1780.000	15710.000
GR	1782.000	16195.000	1782.000	16755.000	1784.000	21140.000	1784.000	21860.000	1788.000	22235.000
GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	QLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.420

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 10000

4.42	9.70	1733.90	0.00	1733.90	1734.71	0.81	0.00	0.00	1737.00
7800.	0.	7800.	0.	0.	1080.	0.	0.	0.	1737.60
0.00	0.00	7.22	0.00	0.000	0.045	0.000	0.000	1724.20	9940.38
0.003369	992.	992.	992.	0	0	0	0.00	143.45	10083.87

CCHL= 0.360 CEHV= 0.600
1496 NH CARD USED
*SECNO 4.437

CENTERLINE STATION AT 10000

4.44	10.27	1734.27	0.00	0.00	1734.59	0.73	0.26	0.03	1736.00	
7800.	0.	7800.	0.	0.	1141.	0.	2.	0.	1736.00	
0.00	0.00	6.84	0.00	0.000	0.045	0.000	0.000	1724.00	9935.89	
0.002463	90.	90.	90.	3	0	0	0.00	128.22	10064.11	

*SECNO 4.438

3265 DIVIDED FLOW

337 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

CENTERLINE STATION AT 10000

4.44	10.20	1734.20	0.00	0.00	1735.07	0.88	0.00	0.08	1736.00	
7800.	0.	7800.	0.	0.	1338.	0.	2.	0.	1736.00	
0.00	0.00	7.51	0.00	0.000	0.045	0.000	0.000	1724.00	9936.16	
0.005998	1.	1.	1.	2	0	0	0.00	119.98	10063.86	

*SECNO 4.456

3265 DIVIDED FLOW

SECNO	DEPTH	C*SEL	CRIWS	*SELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOP*IC	ENDST

337 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

4.46	10.78	1734.78	0.00	0.00	1735.66	0.88	0.59	0.00	1736.00	
7800.	0.	7800.	0.	0.	1035.	0.	5.	1.	1736.00	
0.01	0.00	7.53	0.00	0.000	0.045	0.000	0.000	1724.00	9935.03	
0.006040	98.	98.	98.	2	0	0	0.00	114.28	10064.99	

*SECNO 4.457

CENTERLINE STATION AT 10000

4.46	11.15	1735.15	0.00	0.00	1735.75	0.60	0.00	0.08	1736.00	
7800.	0.	7800.	0.	0.	1256.	0.	5.	1.	1736.00	
0.01	0.00	6.21	0.00	0.000	0.045	0.000	0.000	1724.00	9934.41	
0.001849	1.	1.	1.	2	0	0	0.00	131.19	10065.59	

FLOW DISTRIBUTION FOR SECNO= 4.46 C*SEL= 1735.15

STA= 9934. 10067.
PER Q= 100.
AREA= 1256.1
VEL= 6.2

1496 NH CARD USED
*SECNO 4.470

CENTERLINE STATION AT 10000

4.47	10.33	1735.13	0.00	0.00	1736.09	0.96	0.16	0.18	1736.90	
6800.	0.	6800.	0.	0.	865.	0.	6.	1.	1738.80	

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      0.01       0.00       7.86       0.00      0.000      0.045      0.000      0.000  1724.80  9922.59
  0.004276        60.        60.        60.          2          0          0       0.00   110.38 10032.97
0
 CCHL=    0.10  CEHV=    0.300
 1490 NH CARD USED
 *SECNO 4.570

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1739.10 ELREA=     1738.80

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                CENTERLINE STATION AT 10000
      4.57     12.53  1737.53       0.00       0.00  1738.09       0.56       1.96       0.04  1739.10
      6800.        .          6800.          0.          0.          1129.          0.          19.          2.          1738.80
       0.04       0.00       6.02       0.00      0.000      0.055      0.000      0.000  1725.00  9925.46
  0.002896        350.       562.       800.          3          0          0       0.00   125.72 10051.18

 1490 NH CARD USED
 *SECNO 4.680
                CENTERLINE STATION AT 10000
      4.68     13.67  1738.87       0.00       0.00  1739.39       0.53       1.30       0.00  1740.00
      6800.        .          6800.          0.          0.          1167.          0.          33.          4.          1740.00
       0.06       0.00       5.82       0.00      0.000      0.100      0.000      0.000  1725.20  9935.56
  0.002034        350.       540.       550.          2          0          0       0.00   115.14 10050.70
0
 CCHL=    0.30  CEHV=    0.500
 1490 NH CARD USED
 *SECNO 4.695
                CENTERLINE STATION AT 10000
      4.70     13.84  1739.44       0.00       0.00  1739.58       0.14       1.07       0.12  1740.30
      6800.        .          6800.          0.          0.          2296.          0.          37.          4.          1740.50
       0.07       0.00       2.96       0.00      0.000      0.050      0.000      0.000  1725.60  9913.02
  0.000356        100.       100.       100.          2          0          0       0.00   173.95 10086.97
0
 *SECNO 4.696

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

                CENTERLINE STATION AT 10000
      4.70     13.53  1739.23       0.00       0.00  1739.80       0.58       0.00       0.22  1740.30
      6800.        .          6800.          0.          0.          1116.          0.          37.          4.          1740.00
       0.07       0.00       6.09       0.00      0.000      0.050      0.000      0.000  1725.60  9913.03
  0.010542          1.         1.         1.          2          0          0 -1081.87   173.95 10086.98
0
 *SECNO 4.714

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

 3470 ENCROACHMENT STATIONS=     9661.0    10200.0  TYPE=      1  TARGET=      535.000
                **** CHARLESTON BOULEVARD ****
                2# DEBRIS LOADING
                NORMAL BRIDGE
                CENTERLINE STATION AT 10000
      4.71     14.74  1740.34       0.00       0.00  1741.04       0.70       1.18       0.06  1740.30
      6800.        .          6799.          1.          0.          1012.          2.          40.          4.          1740.00
       0.07       0.10       6.72       0.54      0.130      0.050      0.100      0.000  1725.60  9894.95
  0.013827         98.        98.        98.          3          0          0 -1276.20   201.74 10096.69
0
1
   3-MAY-88     10:30:00                                                                        PAGE    13

    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         QLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        ARCH       WCL        TRA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
```

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWIC	ENDST

*SECNO 4.715

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9661.0 10200.0 TYPE= 1 TARGET= 539.000

CENTERLINE STATION AT 10000

4.72	15.51	1741.11	0.00	0.00	1741.22	0.11	0.00	0.16	1740.30
6800.	15.	6785.	1.	130.	2587.	6.	40.	4.	1740.50
0.07	0.11	2.62	0.11	0.130	0.050	0.100	0.000	1725.60	9661.00
0.000243	1.	1.	1.	2	0	0	0.00	445.83	10106.83

1490 NH CARD USED
*SECNO 4.720

3470 ENCROACHMENT STATIONS= 8875.0 10240.0 TYPE= 1 TARGET= 1365.000

ELENCL= 1744.00 ELENCR= 1744.00

CENTERLINE STATION AT 10000

4.72	12.68	1740.98	0.00	0.00	1741.40	0.42	0.02	0.16	1741.90
6800.	1.	6800.	0.	0.	1303.	0.	42.	5.	1743.50
0.08	0.00	5.22	0.00	0.040	0.035	0.100	0.000	1728.30	9955.67
0.000788	50.	50.	50.	2	0	0	0.00	136.30	10091.97

CCHV= 0.100 CEHV= 0.300
1491 NH CARD USED
*SECNO 4.750

3470 ENCROACHMENT STATIONS= 8875.0 10240.0 TYPE= 1 TARGET= 1365.000

ELENCL= 1744.00 ELENCR= 1744.00

CENTERLINE STATION AT 10000

4.75	12.30	1741.10	0.00	0.00	1741.52	0.41	0.12	0.00	1741.90
6800.	1.	6803.	0.	0.	1321.	0.	47.	5.	1743.50
0.09	0.00	5.15	0.00	0.040	0.035	0.100	0.000	1728.30	9955.42
0.000755	150.	150.	150.	2	0	0	0.00	136.77	10092.19

1490 NH CARD USED
*SECNO 4.940

CENTERLINE STATION AT 10000

4.94	11.78	1741.88	0.00	0.00	1742.41	0.53	.86	0.04	1745.60
6800.	0.	6800.	0.	0.	1162.	0.	74.	8.	1747.90
0.13	0.00	5.85	0.00	0.040	0.035	0.100	0.000	1730.10	9919.89
0.001060	750.	965.	965.	2	0	0	0.00	128.49	10048.37

SECNO	DEPTH	CWSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV LEFT/RIGHT
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	SSTA
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	ENDST
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWIC	

1490 NH CARD USED
*SECNO 5.180

CENTERLINE STATION AT 10000

5.18	11.21	1743.31	0.00	0.00	1743.96	0.65	1.52	0.04	1750.50
6800.	0.	6800.	0.	0.	1049.	0.	106.	12.	1750.80
0.19	0.00	6.48	0.00	0.040	0.035	0.100	0.000	1732.10	9917.51
0.001338	1100.	1277.	1277.	2	0	0	0.00	116.39	10033.90

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.205

CENTERLINE STATION AT 10000

5.20	10.90	1743.80	0.00	0.00	1744.19	0.39	0.15	0.08	1750.20
6800.	0.	6800.	0.	0.	1362.	0.	111.	12.	1749.90
0.19	0.00	4.99	0.00	0.040	0.035	0.100	0.000	1732.90	9927.21
0.000738	150.	150.	150.	2	0	0	0.00	145.96	10073.16

*SECNO 5.206

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

CENTERLINE STATION AT 10000

5.21	10.88	1743.73	0.00	0.00	1744.21	0.43	0.00	0.02	1748.60
6800.	0.	6813.	0.	0.	1285.	0.	111.	12.	1746.60
0.19	0.00	5.29	0.00	0.040	0.035	0.100	0.000	1732.90	9925.75
0.001602	1.	1.	1.	2	0	0	0.00	142.65	10074.25

*SECNO 5.224

3265 DIVIDED FLOW

337 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.5 MAX ELLC= 1750.70

**** STEWART AVENUE ****
2' DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.22	10.80	1743.90	0.00	0.00	1744.46	0.56	0.16	0.06	1748.60
6800.	0.	6800.	0.	0.	1132.	0.	113.	13.	1748.60
0.20	0.00	6.01	0.00	0.040	0.035	0.100	0.000	1733.10	9925.01
0.002236	98.	98.	98.	2	0	0	0.00	128.07	10074.99

*SECNO 5.225

CENTERLINE STATION AT 10000

5.22	11.04	1744.14	0.00	0.00	1744.52	0.37	0.00	0.06	1750.20
6800.	0.	6800.	0.	0.	1386.	0.	113.	13.	1749.90
0.20	0.00	4.91	0.00	0.040	0.035	0.100	0.000	1733.10	9926.69
0.000703	1.	1.	1.	2	0	0	0.00	147.00	10073.69

1490 NH CARD USED
*SECNO 5.240

CENTERLINE STATION AT 10000

5.24	10.94	1744.04	0.00	0.00	1744.73	0.69	0.06	0.16	1751.50
6800.	0.	6800.	0.	0.	1018.	0.	115.	13.	1751.80
0.20	0.00	6.68	0.00	0.040	0.035	0.100	0.000	1733.10	9917.97
0.001464	65.	65.	65.	2	0	0	0.00	115.71	10083.68

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.460

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.46	6.48	1747.88	1747.88	0.00	1750.55	2.67	3.72	0.59	1756.20
6800.	0.	6800.	0.	0.	519.	0.	136.	16.	1758.00
0.23	0.00	13.11	0.00	0.130	0.035	0.100	0.000	1741.40	9934.94
0.010546	1198.	1198.	1198.	20	11	0	0.00	97.02	10031.96

1490 NH CARD USED
*SECNO 5.750

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.75	9.01	1753.81	0.00	0.00	1754.72	0.92	4.00	0.18	1758.60
6800.	0.	6800.	0.	0.	885.	0.	161.	19.	1763.80
0.28	0.00	7.68	0.00	0.130	0.025	0.100	0.000	1744.80	9540.07
0.001156	1532.	1532.	1532.	4	0	0	0.00	114.98	10055.05

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TKA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICFHID	ENDST

*SECNO 5.780

CENTERLINE STATION AT 10000

5.78	9.23	1754.03	0.00	0.00	1754.89	0.86	0.17	0.01	1758.60
6800.	0.	6800.	0.	0.	911.	0.	164.	20.	1763.80
0.29	0.00	7.46	0.00	0.130	0.025	0.100	0.000	1744.80	9539.60
0.001062	150.	150.	150.	2	0	0	0.00	115.80	10055.41

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

CENTERLINE STATION AT 10000

5.79	8.75	1754.45	0.00	0.00	1755.04	0.59	0.06	0.08	1764.40
6800.	0.	6800.	0.	0.	1104.	0.	166.	20.	1763.50
0.29	0.00	6.16	0.00	0.130	0.025	0.100	0.000	1745.70	9928.30
0.000734	50.	70.	150.	2	0	0	0.00	143.44	10071.74

*SECNO 5.795

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

CENTERLINE STATION AT 10000

5.80	8.70	1754.40	0.00	0.00	1755.09	0.68	0.00	0.05	1764.40
6800.	0.	6800.	0.	0.	1024.	0.	166.	20.	1763.50
0.29	0.00	6.64	0.00	0.130	0.025	0.100	0.000	1745.70	9929.37
0.001501	1.	1.	1.	2	0	0	0.00	136.12	10070.68

*SECNO 5.813

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

**** BONANZA AVENUE ****
2* DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TKA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
5.81	8.37	1754.47	0.00	0.00	1755.36	0.89	0.17	0.10	1764.40
6800.	0.	6800.	0.	0.	897.	0.	168.	20.	1763.50
0.29	0.00	7.58	0.00	0.130	0.025	0.100	0.000	1745.90	9928.46
0.002116	98.	98.	98.	2	0	0	0.00	121.94	10071.59

*SECNO 5.814

CENTERLINE STATION AT 10000

5.81	9.12	1754.92	0.00	0.00	1755.47	0.55	.00	0.10	1764.40
6800.	0.	6800.	0.	0.	1146.	0.	168.	20.	1763.50
0.29	0.00	5.94	0.00	0.130	0.025	0.100	0.000	1745.90	9927.55
0.000658	1.	1.	1.	2	0	0	0.00	144.95	10072.50

1490 NH CARD USED
*SECNO 5.820

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.82	8.79	1754.69	0.00	0.00	1755.77	1.08	0.04	0.27	1760.70
6800.	0.	6800.	0.	0.	614.	0.	168.	20.	1760.10
0.30	0.00	8.35	0.00	0.130	0.032	0.100	0.000	1745.90	9926.68
0.002805	30.	30.	30.	2	0	0	0.00	126.32	10053.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.960

CENTERLINE STATION AT 10000

5.96	7.58	1756.98	0.00	0.00	1758.37	1.39	2.50	0.09	1759.70
6800.	0.	6800.	0.	0.	719.	0.	181.	23.	1762.40
0.32	0.00	9.45	0.00	0.130	0.032	0.100	0.000	1749.40	9922.64
0.004287	750.	730.	650.	3	0	0	0.00	128.84	10051.49

1490 NH CARD USED
*SECNO 6.160

CENTERLINE STATION AT 10000

6.16	9.48	1761.28	0.00	0.00	1762.82	1.54	4.41	0.05	1763.00
6400.	0.	6400.	0.	0.	642.	0.	198.	25.	1764.90
0.35	0.00	9.97	0.00	0.130	0.032	0.100	0.000	1751.80	9944.00
0.004063	1056.	1056.	1056.	3	0	0	0.00	101.38	10045.38

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	ANCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 6.350

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

6.35	7.33	1767.53	0.00	0.00	1769.81	2.29	6.77	0.22	1771.80
6400.	0.	6400.	0.	0.	527.	0.	211.	28.	1771.80
0.37	0.00	12.14	0.00	0.130	0.045	0.100	0.000	1760.20	9958.13
0.013290	1100.	1004.	950.	3	0	0	0.00	89.88	10048.00

1490 NH CARD USED
*SECNO 6.400
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 9862.0 10128.0 TYPE= 1 TARGET= 266.000
ELENCL= 1775.10 ELENCR= 1774.00

CENTERLINE STATION AT 10000

6.40	7.16	1773.56	1773.56	0.00	1775.84	2.29	4.36	0.00	1775.00
6400.	.	6365.	35.	.	523.	28.	215.	26.	1773.30
0.32	0.00	12.17	1.24	0.130	0.045	0.100	0.000	1766.40	9949.29
0.016919	300.	292.	270.	3	6	0	0.00	164.70	10113.99

1490 NH CARD USED
*SECNO 6.570

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1781.60 ELREA= 1781.60

CENTERLINE STATION AT 10000

6.57	11.39	1779.33	0.00	0.00	1780.65	0.76	4.65	0.15	1781.60
6400.	3.	6400.	0.	6.	915.	0.	229.	31.	1781.60
0.41	0.00	7.00	0.00	0.130	0.045	0.100	0.000	1768.50	9934.03
0.002647	920.	856.	500.	4	0	0	0.00	100.36	10034.38

1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

*SECNO 6.710

3470 ENCROACHMENT STATIONS= 14942.0 15039.0 TYPE= 1 TARGET= 97.000
ELENCL= 1784.80 ELENCR= 1784.80

CENTERLINE STATION AT 15000

6.71	12.14	1781.44	0.00	0.00	1782.31	0.87	1.63	0.03	1784.80
6400.	.	6400.	0.	0.	855.	0.	245.	32.	1784.80
.44	0.00	7.48	0.00	0.13	0.035	0.100	0.000	1769.30	14945.98
0.001698	650.	780.	450.	2	0	0	0.00	89.37	15035.35

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 51,52,53,54,55
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.420	0.00	0.00	0.00	1724.20	7800.00	1733.90	0.00	1734.71	33.65	7.22	1079.79	1343.89

4.437	9[illegible]	[illegible]	[illegible]	1724.00	7800.[illegible]	1734.27	0.00	1734.99	24.63	6.84	1140.85	1571.59
4.436	1.00	1737.50	1739.70	1724.00	7800.00	1734.20	0.00	1735.07	59.98	7.51	1038.36	1007.12
4.456	98.00	1737.50	1739.70	1724.00	7800.00	1734.78	0.00	1735.66	60.40	7.53	1035.26	1003.62
4.457	1.00	0.00	0.00	1724.00	7800.00	1735.15	0.00	1735.75	18.49	6.21	1256.06	1813.86
4.470	60.00	0.00	0.00	1724.80	6800.00	1735.13	0.00	1736.09	42.76	7.86	864.95	1039.92
4.570	562.00	0.00	0.00	1725.00	6800.00	1737.53	0.00	1738.09	28.96	6.02	1129.11	1263.52
4.680	540.00	0.00	0.00	1725.20	6800.00	1738.87	0.00	1739.39	20.34	5.82	1167.44	1507.92
4.695	100.00	0.00	0.00	1725.60	6800.00	1739.44	0.00	1739.58	3.58	2.96	2296.15	3593.84
4.696	1.00	1740.30	1740.90	1725.60	6800.00	1739.23	0.00	1739.80	105.42	6.09	1116.33	662.29
4.714	98.00	1740.30	1740.90	1725.60	6800.00	1740.34	0.00	1741.04	138.27	6.72	1014.42	578.26
4.715	1.00	0.00	0.00	1725.60	6800.00	1741.11	0.00	1741.22	2.43	2.62	2722.29	4363.85
4.720	50.00	0.00	0.00	1726.30	6800.00	174 .98	0.00	1741.40	7.88	5.22	1302.66	2422.46
4.750	150.00	0.00	0.00	1726.30	6800.00	1741.19	0.00	1741.52	7.55	5.15	1321.43	2474.56
4.940	965.00	0.00	0.00	1730.10	6800.00	1741.68	0.00	1742.41	10.60	5.85	1161.53	2088.46
5.180	1277.00	0.00	0.00	1732.10	6800.00	1743.31	0.00	1743.96	13.38	6.48	1048.85	1859.34
5.205	150.00	0.00	0.00	1732.90	6800.00	1743.80	0.00	1744.19	7.38	4.99	1362.31	2503.72

	SECNO	XLCH	ELTRD	ELLC	ELPIN	Q	CHSEL	CRIMS	EG	10K*S	VCH	AREA	.01K
	5.206	1.00	1749.50	1750.70	1732.90	6800.00	1743.78	0.00	1744.21	16.02	5.29	1284.84	1699.02
	5.224	98.00	1749.50	1750.70	1733.10	6800.00	1743.90	0.00	1744.46	22.36	6.01	1132.04	1437.90
	5.225	1.00	0.00	0.00	1733.10	6800.00	1744.14	0.00	1744.52	7.03	4.91	1385.84	2564.24
	5.240	60.00	0.00	0.00	1733.10	6800.00	1744.04	0.00	1744.73	14.64	6.68	1017.90	1777.26
*	5.460	1198.00	0.00	0.00	1741.40	6800.00	1747.88	1747.88	1750.55	105.46	13.11	518.67	662.16
	5.750	1532.00	0.00	0.00	1744.80	6800.00	1753.81	0.00	1754.72	11.56	7.68	885.37	1999.61
	5.780	150.00	0.00	0.00	1744.80	6800.00	1754.03	0.00	1754.89	10.62	7.46	911.19	2086.76
	5.794	70.00	0.00	0.00	1745.70	6800.00	1754.45	0.00	1755.04	7.34	6.16	1104.27	2510.71
	5.795	1.00	1763.50	1764.40	1745.70	6800.00	1754.40	0.00	1755.09	15.01	6.64	1024.27	1755.16
	5.813	98.00	1763.50	1764.40	1745.90	6800.00	1754.47	0.00	1755.36	21.16	7.58	896.69	1478.25
	5.814	1.00	0.00	0.00	1745.90	6800.00	1754.92	0.00	1755.47	6.58	5.94	1145.62	2650.32
	5.820	30.00	0.00	0.00	1745.90	6800.00	1754.69	0.00	1755.77	28.05	8.35	813.94	1283.89
	5.960	730.00	0.00	0.00	1749.40	6800.00	1756.98	0.00	1758.37	42.87	9.45	719.22	1038.55
	6.160	1356.00	0.00	0.00	1751.80	6400.00	1761.28	0.00	1762.82	40.63	9.97	642.07	1004.07
	6.350	1004.00	0.00	0.00	1760.20	6400.00	1767.53	0.00	1769.81	132.90	12.14	527.37	555.16

*	6.400	292.00	0.00	0.00	1766.40	6400.00	1773.56	1773.56	1775.84	169.19	12.17	550.79	492.02
	6.570	656.00	0.00	0.00	1768.53	6400.00	1775.89	0.00	1780.65	26.47	7.00	914.62	1243.85
	6.710	780.00	0.00	0.00	1769.30	6400.00	1781.44	0.00	1782.31	16.98	7.48	855.18	1553.32

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.420	7800.00	1733.90	0.00	0.00	0.00	143.49	0.00
4.437	7800.00	1734.27	0.00	0.37	0.00	128.22	90.00
4.438	7800.00	1734.20	0.00	-0.07	0.00	119.98	1.00
4.456	7800.00	1734.78	0.00	0.59	0.00	114.28	98.00
4.457	7800.00	1735.15	0.00	0.37	0.00	131.19	1.00
4.470	6800.00	1735.13	0.00	-0.02	0.00	110.38	60.00
4.570	6800.00	1737.53	0.00	2.40	0.00	125.72	562.00
4.680	6800.00	1738.87	0.00	1.34	0.00	115.14	540.00
4.695	6800.00	1739.44	0.00	0.58	0.00	173.95	100.00
4.696	6800.00	1739.23	0.00	-0.22	0.00	173.95	1.00
4.714	6800.00	1740.34	0.00	1.12	0.00	201.74	98.00
4.715	6800.00	1741.11	0.00	0.77	0.00	445.83	1.00
4.720	6800.00	1740.98	0.00	-0.14	0.00	136.30	50.00
4.750	6800.00	1741.10	0.00	0.13	0.00	136.77	150.00
4.940	6800.00	1741.88	0.00	0.77	0.00	128.49	965.00
5.160	6800.00	1743.31	0.00	1.43	0.00	116.39	1277.00
5.205	6800.00	1743.80	0.00	0.49	0.00	145.95	150.00
5.206	6800.00	1743.78	0.00	-0.02	0.00	142.65	1.00
5.224	6800.00	1743.90	0.00	0.12	0.00	128.07	98.00
5.225	6800.00	1744.14	0.00	0.24	0.00	147.00	1.00
5.240	6800.00	1744.04	0.00	-0.10	0.00	115.71	60.00
* 5.460	6800.00	1747.88	0.00	3.84	0.00	97.02	1198.00
5.750	6800.00	1753.81	0.00	5.93	0.00	114.98	1532.00
5.780	6800.00	1754.03	0.00	0.22	0.00	115.80	150.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	5.794	6800.00	1754.45	0.00	0.42	0.00	143.44	70.00
	5.795	6800.00	1754.40	0.00	-0.05	0.00	136.12	1.00
	5.813	6800.00	1754.47	0.00	0.07	0.00	121.94	98.00
	5.814	6800.00	1754.92	0.00	0.45	0.00	144.95	1.00
	5.820	6800.00	1754.69	0.00	-0.23	0.00	126.32	30.00
	5.960	6800.00	1756.98	0.00	2.29	0.00	128.84	730.00
	6.160	6400.00	1761.28	0.00	4.30	0.00	101.38	1056.00
	6.350	6400.00	1767.53	0.00	6.25	0.00	89.88	1004.00
*	6.400	6400.00	1773.56	0.00	6.03	0.00	164.70	292.00
	6.570	6400.00	1779.89	0.00	6.33	0.00	100.36	856.00
	6.710	6400.00	1781.44	0.00	1.56	0.00	89.37	780.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 5.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.460 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 5.460 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 6.400 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.400 PROFILE= 1 MINIMUM SPECIFIC ENERGY

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

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1*************************************************
*  WATER SURFACE PROFILES                       *
*  VERSION OF NOVEMBER 1976                     *
*  UPDATED AUGUST 1983                          *
*                                               *
*  RUN DATE  28-APR-88 TIME   16:28:51          *
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X        X     X            X     X
X      X  X        X                  X     X
XXXXXXXX  XXXX     X           XXXXX   XXXXX
X      X  X        X                  X
X      X  X        X     X            X
X      X  XXXXXXX  XXXXX              XXXXXXX
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  1,2,3,4,5
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1        CORPS/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR (MIDDLE REACH)                    12/87     SRM
J1   ICHECK      INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
          0.        2.        3.        0.  0.000000      0.00      0.5       0.  1733.900      0.000
J2   NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
        -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3   VARIABLE CODES FOR SUMMARY PRINTOUT
       150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC         0.050     0.027     0.045     0.100     0.300     0.000     0.000     0.000     0.000     0.000
GT         1.000  7800.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NH         5.000     0.045  3880.000     0.130  8050.000     0.050  9935.000     0.045 10132.000     0.100
NH     15890.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
                 SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                 CENTERLINE STATION AT 10000
X1         4.420    27.000  9935.000 10132.000   992.000   992.000   992.000     0.000     0.000     0.000
GR      1748.000  2045.000  1744.000  2335.000  1740.000  3060.000  1740.000  3515.000  1736.000  3675.000
GR      1736.000  3880.000  1736.000  6450.000  1736.500  8050.000  1739.700  9731.000  1739.700  9794.000
GR      1737.400  9813.000  1737.000  9935.000  1724.900  9956.000  1724.800 10000.000  1724.200 10052.000
GR      1732.300 10072.000  1735.400 10095.000  1737.600 10132.000  1737.600 10179.000  1738.000 10236.000
GR      1736.000 10750.000  1735.600 11580.000  1736.000 12365.000  1740.000 13440.000  1744.000 14870.000
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GR	1744.000	15500.000	1743.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	6.000	1.000	1.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3896.000	0.130	8066.000	0.050	9933.000	0.045	10067.000	0.100
NH	15905.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.600
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

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CENTERLINE STATION AT 10000

X1	4.438	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9954.000	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9984.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000
GR	1736.000	10013.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.600
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

GT	1.000	6800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10097.000	0.050
NH	11360.000	0.100	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.47	41.000	9919.000	10058.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1752.000	1595.000	1748.000	2035.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	6200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9903.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000	1738.800	10072.000	1737.100	10078.000

GR	1737.700	10230.000	1737.100	10310.000	1738.400	10373.000	1739.400	10392.000	1737.300	10397.000
GR	1738.400	10434.000	1736.000	11360.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000

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GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	5914.000	0.055
NH	10061.000	0.070	10493.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.570	43.000	9914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1756.000	1380.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1738.000	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1736.800	9862.000	1737.300	9886.000	1735.100	9914.000	1736.500	9930.000	1725.600	9953.000
GR	1725.600	9974.000	1727.100	9989.300	1725.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.800	10040.000	1737.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	10089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384.000	1739.400	10403.000
GR	1737.300	10408.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1746.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10050.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.660	23.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
GR	1760.000	1219.000	1756.000	1580.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1740.000	2770.000	1740.000	2855.000	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000
GR	1740.000	9320.000	1740.000	9935.000	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000
GR	1725.200	9989.000	1725.200	10010.000	1728.900	10012.000	1728.100	10025.000	1733.800	10029.000
GR	1737.500	10040.000	1738.800	10050.000	1740.000	10065.000	1744.000	13035.000	1748.000	13975.000
GR	1752.000	14925.000	1756.000	15500.000	1760.000	16450.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10087.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.695	23.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1735.000	1735.000	0.000
GR	1760.000	1239.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.696	37.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900
GR	1733.000	9930.000	1733.000	9931.500	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300
GR	1733.000	9977.700	1725.600	9977.800	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900
GR	1725.600	10024.000	1725.600	10068.600	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200
GR	1733.000	10036.600	1740.000	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000

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ET	0.000	7.100	0.000	0.000	0.000	0.000	9661.000	10200.000	0.000	0.000

**** CHARLESTON BOULEVARD ****
2# DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE	STATION AT	10000							
X1	4.714	37.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000	
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000	
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000	
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000	
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	
GR	1733.000	9928.000	1733.000	9933.500	1725.600	9933.200	1725.600	9974.200	1733.000	9974.200	
GR	1733.000	9979.700	1725.600	9979.800	1725.600	10020.400	1733.000	10020.500	1733.000	10025.900	
GR	1725.600	10026.000	1725.600	10066.600	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200	
GR	1733.000	10086.800	1740.000	11087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	
GR	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	
ET	0.000	7.100	0.000	0.000	0.000	0.000	9661.000	10200.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	4.715	23.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1740.500	1740.500	0.000	
X4	1.000	1744.000	10200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000	
GR	1740.000	2849.000	1740.000	2934.000	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	
GR	1740.000	9399.000	1740.900	9661.000	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	
GR	1725.600	10072.200	1733.000	10086.800	1740.500	10067.000	1744.000	13079.000	1748.000	14019.000	
GR	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000	0.000	0.000	0.000	0.000	
NH	8.000	0.130	1810.000	0.045	3660.000	0.130	8875.000	0.040	9954.000	0.035	
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	4.720	35.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000	
X3	0.000	0.000	0.000	8875.000	1744.000	10240.000	1744.000	0.000	0.000	0.000	
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000	
GR	1740.000	2950.000	1740.000	3035.000	1744.000	3050.000	1744.000	3880.000	1740.000	4875.000	
GR	1740.000	5390.000	1744.000	7295.000	1744.000	8875.000	1742.300	9833.000	1741.900	9954.000	
GR	1729.600	9976.000	1729.200	9988.000	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000	
GR	1729.600	10028.000	1729.900	10055.000	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000	
GR	1743.500	10096.000	1743.900	10137.000	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000	
GR	1744.000	13400.000	1748.000	14690.000	1752.000	15375.000	1756.000	15925.000	1760.000	16450.000	
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000	
NH	8.000	0.130	1810.000	0.045	3660.000	0.130	8875.000	0.040	9954.000	0.035	
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000	
X3	0.000	0.000	0.000	8875.000	1744.000	10240.000	1744.000	0.000	0.000	0.000	

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NH	8.000	0.130	3095.000	0.045	3280.000	0.100	7641.000	0.045	9897.000	0.035	
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000	
GR	1760.000	1720.000	1756.000	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000	
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9889.000	
GR	1745.600	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000	
GR	1730.100	10008.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000	
GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000	
GR	1744.000	13550.000	1748.000	14300.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000	
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000	
NH	8.000	0.130	3500.000	0.045	3575.000	0.130	5425.000	0.045	9330.000	0.065	
NH	9905.000	0.035	10040.000	0.130	17355.000	0.040	18900.000	0.000	0.000	0.000	
		CENTERLINE	STATION AT	10000							
X1	5.180	29.000	9905.000	10040.000	1100.000	1277.000	1277.000	0.000	0.000	0.000	
GR	1760.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1748.000	3500.000	
GR	1748.000	3555.000	1752.000	3575.000	1752.000	4830.000	1748.000	4155.000	1748.000	5425.000	
GR	1748.000	9330.000	1753.500	9803.000	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000	

GR	1732.100	9937.000	1732.300	9978.000	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000
GR	1735.900	10017.000	1737.300	10029.000	1750.800	10040.000	1753.700	10071.000	1752.000	10200.000
GR	1752.000	14875.000	1756.000	15780.000	1760.000	17355.000	1770.000	18900.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045
NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17630.000	0.040	18935.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.205	24.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1732.900	9948.000	1732.900	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.206	38.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000
GR	1732.900	9950.000	1748.600	9950.100	1748.600	9951.500	1732.900	9951.600	1732.900	9982.800
GR	1748.600	9982.900	1748.600	9984.300	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700
GR	1748.600	10017.100	1732.900	10017.200	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900
GR	1732.900	10050.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000

**** STEWART AVENUE ****

2' DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	5.224	38.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000
GR	1733.100	9948.000	1748.600	9948.100	1748.600	9953.500	1733.100	9953.600	1733.100	9980.800
GR	1748.600	9980.900	1748.600	9986.300	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700
GR	1748.600	10019.100	1733.100	10019.200	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900
GR	1733.100	10052.000	1748.600	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000
GR	1756.000	15235.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.225	24.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1748.000	3490.000	1748.000	3555.000	1752.000	3570.000	1752.000	3675.000
GR	1748.000	4320.000	1748.000	5910.000	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000
GR	1733.100	9948.000	1733.100	10052.000	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000
GR	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000	1770.000	18935.000	0.000	0.000
NH	10.000	0.040	2530.000	0.100	3430.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.130	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.240	32.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1772.000	2005.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3430.000	1748.000	3445.000	1748.000	3515.000	1752.000	3530.000	1752.000	3725.000
GR	1748.000	5155.000	1748.000	6415.000	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000
GR	1751.800	9826.000	1751.900	9875.000	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000
GR	1734.700	9988.000	1733.300	9997.000	1733.300	10002.000	1736.900	10017.000	1738.300	10029.000
GR	1751.800	10040.000	1754.700	10071.000	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000
GR	1760.000	17670.000	1770.000	18830.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3110.000	0.130	8140.000	0.040	9916.000	0.. 35	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.460	36.000	9916.000	10051.000	1158.000	1198.000	1198.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2325.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000
GR	1760.000	3110.000	1761.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	8140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10005.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.000	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000
GR	1758.900	10191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18395.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	2785.000	0.120	4110.000	0.045	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.750	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9605.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.600	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.200	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10368.000	1764.800	10376.000	1763.800	10430.000	1764.000	10465.000
GR	1764.000	10815.000	1760.500	10990.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17865.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10891.000	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.794	22.000	9911.000	10051.000	50.000	150.000	70.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1764.400	1762.500
BT	9983.500	1764.400	1762.500	10087.600	1764.400	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9948.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		**** BONANZA AVENUE ****								
		2* DEBRIS LOADING								
		NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	5.813	36.000	9911.000	10091.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1764.400	1762.500
BT	9985.500	1764.400	1762.500	10087.600	1764.400	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1762.500	9945.700	1762.500	9950.900
GR	1745.900	9951.000	1745.900	9981.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500

GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.814	22.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9805.000	0.050	9913.000	0.032
NH	10069.000	0.040	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.820	30.000	9913.000	10069.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4650.000	1760.000	5405.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.300	9857.000	1761.400	9883.000	1760.300	9897.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1749.400	9966.000	1747.600	9973.000
GR	1747.500	10027.000	1760.100	10069.000	1755.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7955.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	15015.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.960	26.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
GR	1776.000	1875.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	9880.000	1761.800	9897.000	1759.700	9913.000
GR	1751.800	9941.000	1752.000	9953.000	1752.000	9966.000	1749.400	9973.000	1749.400	10027.000
GR	1762.400	10069.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GT	1.000	5900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5698.000	0.040	9939.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.160	48.000	9939.000	10054.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
GR	1780.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1766.100	9728.000	1764.700	9756.000	1765.100	9763.000	1765.100	9786.000	1766.900	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1760.700	10044.000	1764.500	10054.000
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.500	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10228.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000

NH	8.000	0.090	7425.000	0.130	9676.000	0.040	9949.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000

GR	1764.000	11300.000	1780.000	11770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.600	10125.000	1772.800	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000
NH	6.000	0.090	8115.000	0.130	9546.000	0.045	10057.000	0.100	11580.000	0.040
NH	16070.000	0.130	18375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	6.400	34.000	9946.000	10057.000	300.000	270.000	292.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9862.000	1775.100	10128.000	1774.000	0.000	0.000	0.000
GR	1784.000	1215.000	1780.000	2265.000	1776.000	6430.000	1776.000	8115.000	1776.000	9640.000
GR	1775.600	9710.000	1773.900	9772.000	1773.900	9799.000	1773.600	9810.000	1775.100	9862.000
GR	1775.000	9946.000	1767.100	9964.000	1767.100	9983.000	1766.400	9991.000	1766.400	9995.000
GR	1766.400	10009.000	1770.200	10033.000	1773.300	10057.000	1773.000	10073.000	1772.700	10087.000
GR	1774.000	10128.000	1772.600	10143.000	1772.600	10183.000	1772.600	10224.000	1766.600	10239.000
GR	1766.600	10247.000	1774.100	10268.000	1776.200	10297.000	1776.000	10850.000	1776.000	11980.000
GR	1776.000	13470.000	1778.900	16070.000	1780.000	17095.000	1784.000	18375.000	0.000	0.000
NH	7.000	0.090	9865.000	0.100	9932.000	0.045	10035.000	0.045	10610.000	0.100
NH	11340.000	0.045	15790.000	0.130	18205.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	6.570	29.000	9932.000	10035.000	920.000	500.000	856.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1788.000	35.000	1784.000	1250.000	1780.300	4925.000	1780.000	8865.000	1777.800	9808.000
GR	1777.800	9828.000	1778.800	9854.000	1781.600	9932.000	1776.600	9945.000	1769.300	9972.000
GR	1769.300	9932.000	1768.500	9991.000	1768.500	10009.000	1773.300	10020.000	1773.300	10032.000
GR	1781.600	10035.000	1778.600	10061.000	1777.500	10085.000	1775.600	10129.000	1779.600	10224.000
GR	1776.800	10433.000	1776.000	10475.000	1776.000	10610.000	1780.000	11340.000	1780.000	15790.000
GR	1780.000	17135.000	1784.000	17605.000	1788.000	18025.000	1790.000	18395.000	0.000	0.000
NH	9.000	0.130	4690.000	0.100	13425.000	0.130	14809.000	0.130	14942.000	0.035
NH	15039.000	0.045	16195.000	0.100	16755.000	0.045	21140.000	0.130	22860.000	0.000
		CENTERLINE	STATION AT	15000						
X1	6.710	42.000	14942.000	15039.000	650.000	450.000	780.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	14942.000	1784.800	15039.000	1784.800	0.000	0.000	0.000
GR	1796.000	2630.000	1792.000	3960.000	1792.000	4690.000	1784.000	8200.000	1784.000	12020.000
GR	1784.000	13425.000	1780.000	14065.000	1780.000	14680.000	1777.400	14809.000	1777.600	14835.000
GR	1778.500	14910.000	1779.000	14914.000	1784.800	14942.000	1773.000	14956.000	1769.300	14987.000
GR	1769.300	14997.000	1769.300	15012.000	1771.900	15025.000	1784.800	15039.000	1781.900	15040.000
GR	1781.900	15071.000	1781.000	15110.000	1781.300	15136.000	1781.200	15150.000	1781.200	15167.000
GR	1780.000	15195.000	1782.100	15222.000	1782.100	15298.000	1781.800	15387.000	1775.800	15404.000
GR	1779.800	15461.000	1781.600	15472.000	1781.000	15531.000	1780.000	15640.000	1780.000	15710.000
GR	1782.000	16195.000	1782.000	16755.000	1784.000	21140.000	1784.000	21860.000	1788.000	22235.000
GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	∠SELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCH = 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.420

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 10000

4.42	9.70	1733.90	0.00	1733.90	1734.71	0.81	0.00	0.00	1737.00
7800.	0.	7800.	0.	0.	1080.	0.	0.	0.	1737.60
0.00	0.00	7.22	0.00	0.000	0.045	0.000	0.000	1724.20	5940.38
0.003369	992.	992.	992.	0	0	0	0.00	143.49	10083.87

CCHV= 1.30 CEHV= 0.50
1490 NH CARD USED
*SECNO 4.437

CENTERLINE STATION AT 10000

4.44	10.27	1734.27	0.00	0.00	1734.99	0.73	0.26	0.03	1736.00	
7800.	0.	7800.	0.	0.	1141.	0.	2.	0.	1736.00	
0.00	0.00	6.84	0.00	0.000	0.045	0.000	0.000	1724.00	9935.89	
0.002463	91.	90.	90.	3	0	0	0.00	128.22	10064.11	

*SECNO 4.438

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

CENTERLINE STATION AT 10000

4.44	10.20	1734.20	0.00	0.00	1735.07	0.88	0.00	0.08	1736.00	
7800.	0.	7800.	0.	0.	1038.	0.	2.	0.	1736.00	
0.00	0.00	7.51	0.00	0.000	0.045	0.000	0.000	1724.00	9936.16	
0.005998	1.	1.	1.	2	0	0	0.00	119.98	10063.86	

*SECNO 4.456

3265 DIVIDED FLOW

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

4.46	10.78	1734.78	0.00	0.00	1735.66	0.88	0.59	0.00	1736.00	
7800.	0.	7800.	0.	0.	1035.	0.	5.	1.	1736.00	
0.01	0.00	7.53	0.00	0.000	0.045	0.000	0.000	1724.00	9935.03	
0.006040	98.	98.	98.	2	0	0	0.00	114.28	10064.99	

*SECNO 4.457

CENTERLINE STATION AT 10000

4.46	11.15	1735.15	0.00	0.00	1735.75	0.60	0.00	0.08	1736.00	
7800.	0.	7800.	0.	0.	1256.	0.	5.	1.	1736.00	
0.01	0.00	6.21	0.00	0.000	0.045	0.000	0.000	1724.00	9934.41	
0.001849	1.	1.	1.	2	0	0	0.00	131.15	10065.59	

FLOW DISTRIBUTION FOR SECNO= 4.46 CWSEL= 1735.15

STA= 9934. 10067.
PER Q= 100.0
AREA= 1256.1
VEL= 6.2

1490 NH CARD USED
*SECNO 4.470

CENTERLINE STATION AT 10000

4.47	10.33	1735.13	0.00	0.00	1736.09	0.96	0.16	0.18	1736.90	
6800.	0.	6800.	0.	0.	865.	0.	6.	1.	1738.80	

0.01	0.00	7.86	0.00	0.000	0.045	0.000	0.000	1724.80	9922.59
0.004276	60.	60.	60.	2	0	0	0.00	110.38	10032.97

0
CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.570

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1739.10 ELREA= 1738.80

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CENTERLINE STATION AT 10000

4.57	12.53	1737.53	0.00	0.00	1738.09	0.56	1.96	0.04	1739.10
6800.	0.	6800.	0.	0.	1125.	0.	19.	2.	1738.80
0.04	0.00	6.02	0.00	0.000	0.055	0.000	0.000	1725.00	9925.46
0.002896	350.	562.	800.	3	0	0	0.00	125.72	10051.18

0
1490 NH CARD USED
*SECNO 4.680

CENTERLINE STATION AT 10000

4.68	13.67	1738.87	0.00	0.00	1739.39	0.53	1.30	0.00	1740.00
6800.	0.	6800.	0.	0.	1167.	0.	33.	4.	1740.00
0.06	0.00	5.82	0.00	0.000	0.100	0.000	0.000	1725.20	9935.56
0.002034	350.	540.	550.	2	0	0	0.00	115.14	10050.70

0
CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.695

CENTERLINE STATION AT 10000

4.70	13.84	1739.44	0.00	0.00	1739.58	0.14	0.07	0.12	1740.30
6800.	0.	6800.	0.	0.	2296.	0.	37.	4.	1740.50
0.07	0.00	2.96	0.00	0.000	0.050	0.000	0.000	1725.60	9913.02
0.000358	100.	100.	100.	2	0	0	0.00	173.95	10086.97

0
*SECNO 4.696

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

CENTERLINE STATION AT 10000

4.70	13.83	1739.23	0.00	0.00	1739.80	0.58	0.00	0.22	1740.30
6800.	0.	6800.	0.	0.	1116.	0.	37.	4.	1740.00
0.07	0.00	6.09	0.00	0.000	0.050	0.000	0.000	1725.60	9913.03
0.010542	1.	1.	1.	2	0	0	-1081.87	173.95	10086.98

0
*SECNO 4.714

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

3470 ENCROACHMENT STATIONS= 9661.0 10200.0 TYPE= 1 TARGET= 535.000
**** CHARLESTON BOULEVARD ****
2" DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

4.71	14.74	1740.34	0.00	0.00	1741.04	0.70	1.18	0.06	1740.30
6800.	0.	6799.	1.	0.	1012.	2.	40.	4.	1740.00
0.07	0.10	6.72	0.54	0.130	0.050	0.100	0.000	1725.60	9894.95
0.013827	98.	98.	98.	3	0	0	-1276.20	201.74	10096.69

0
1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.715

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9661.0 10200.0 TYPE= 1 TARGET= 535.000
CENTERLINE STATION AT 10000

4.72	15.51	1741.11	0.00	0.00	1741.22	0.11	0.00	0.18	1740.30
6800.	15.	6785.	1.	130.	2587.	6.	40.	4.	1740.50
0.07	0.11	2.62	0.11	0.130	0.050	0.100	0.000	1725.60	9661.00
0.000243	1.	1.	1.	2	0	0	0.00	445.83	10106.83

1490 NH CARD USED
*SECNO 4.720

3470 ENCROACHMENT STATIONS= 8875.0 10240.0 TYPE= 1 TARGET= 1365.000
ELENCL= 1744.00 ELENCR= 1744.00
CENTERLINE STATION AT 10000

4.72	12.68	1740.98	0.00	0.00	1741.40	0.42	0.02	0.16	1741.90
6800.	0.	6800.	0.	0.	1303.	0.	42.	5.	1743.50
0.08	0.00	5.22	0.00	0.040	0.035	0.100	0.000	1728.30	9955.67
0.000788	50.	50.	50.	2	0	0	0.00	136.30	10091.97

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.750

3470 ENCROACHMENT STATIONS= 8875.0 10240.0 TYPE= 1 TARGET= 1365.000
ELENCL= 1744.00 ELENCR= 1744.00
CENTERLINE STATION AT 10000

4.75	12.30	1741.13	0.00	0.00	1741.52	0.41	0.12	0.00	1741.90
6800.	0.	6800.	0.	0.	1321.	0.	47.	5.	1743.50
0.09	0.00	5.15	0.00	0.040	0.035	0.100	0.000	1728.30	9955.42
0.000755	150.	150.	150.	2	0	0	0.00	136.77	10092.19

1490 NH CARD USED
*SECNO 4.940

CENTERLINE STATION AT 10000

4.94	11.78	1741.88	0.00	0.00	1742.41	0.53	.86	0.04	1745.60
6800.	0.	6800.	0.	0.	1162.	0.	74.	8.	1747.90
0.13	0.00	5.85	0.00	0.040	0.035	0.100	0.000	1730.10	9519.89
0.001060	750.	965.	965.	2	0	0	0.00	128.49	10048.37

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SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	WCL	I&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIA	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 5.180

CENTERLINE STATION AT 10000

5.18	11.21	1743.31	0.00	0.00	1743.96	0.65	1.52	0.04	1750.50
6800.	0.	6800.	0.	0.	1049.	0.	106.	12.	1750.80
0.19	0.00	6.48	0.00	0.040	0.035	0.100	0.000	1732.10	9917.51
0.001338	1100.	1277.	1277.	2	0	0	0.00	116.39	10033.90

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.205

CENTERLINE STATION AT 10000

5.20	10.90	1743.80	0.00	0.00	1744.19	0.39	0.15	0.08	1750.20	
6800.	0.	6800.	0.	0.	1362.	0.	111.	12.	1745.90	
0.19	0.00	4.99	0.00	0.040	0.035	0.100	0.000	1732.90	9927.21	
0.000738	150.	150.	150.	2	0	0	0.00	145.95	10073.16	

0
*SECNO 5.206

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

CENTERLINE STATION AT 10000

5.21	10.88	1743.78	0.00	0.00	1744.21	0.43	0.00	0.02	1748.60	
6800.	0.	6800.	0.	0.	1285.	0.	111.	12.	1746.60	
0.19	0.00	5.29	0.00	0.040	0.035	0.100	0.000	1732.90	9925.75	
0.001602	1.	1.	1.	2	0	0	0.00	142.65	10074.25	

0
*SECNO 5.224

3265 DIVIDED FLOW

337 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.5 MAX ELLC= 1750.70

**** STEWART AVENUE ****
2* DEBRIS LOADING
NORMAL BRIDGE

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CENTERLINE STATION AT 10000

5.22	10.80	1743.90	0.00	0.00	1744.46	0.56	0.18	0.06	1748.60	
6800.	0.	6800.	0.	0.	1132.	0.	113.	13.	1748.60	
0.20	0.00	5.01	0.00	0.040	0.035	0.100	0.000	1733.10	9925.01	
0.002236	98.	98.	98.	2	0	0	0.00	128.87	10074.99	

0
*SECNO 5.225

CENTERLINE STATION AT 10000

5.22	11.04	1744.14	0.00	0.00	1744.52	0.37	0.00	0.06	1750.20	
6800.	0.	6800.	0.	0.	1386.	0.	113.	13.	1749.90	
0.20	0.00	4.91	0.00	0.040	0.035	0.100	0.000	1733.10	9926.69	
0.000703	1.	1.	1.	2	0	0	0.00	147.00	10073.69	

0
1490 NH CARD USED
*SECNO 5.240

CENTERLINE STATION AT 10000

5.24	10.94	1744.04	0.00	0.00	1744.73	0.69	0.06	0.16	1751.50	
6800.	0.	6800.	0.	0.	1018.	0.	115.	13.	1751.80	
0.20	0.00	6.68	0.00	0.040	0.035	0.100	0.000	1733.10	9917.97	
0.001464	60.	60.	60.	2	0	0	0.00	115.71	10083.68	

0
CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.460

3301 HV CHANGED MORE THAN HVINS

3665 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.46	6.48	1747.88	1747.88	0.00	1750.55	2.67	3.72	0.59	1756.20	
6800.	0.	6800.	0.	0.	515.	0.	136.	16.	1758.00	
0.23	0.00	13.11	0.00	0.130	0.035	0.100	0.000	1741.40	9934.94	
0.010546	1198.	1198.	1198.	20	11	0	0.00	97.02	10031.96	

0

1490 NH CARD USED
*SECNO 5.750

3361 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.75	9.01	1753.81	0.00	0.00	1754.72	0.92	4.00	0.18	1758.60
6800.	0.	6800.	0.	0.	885.	0.	161.	15.	1763.80
0.28	0.00	7.68	0.00	0.130	0.025	0.100	0.000	1744.80	9940.07
0.001156	1532.	1532.	1532.	4	0	0	0.00	114.98	10055.05

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SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	THA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.780

CENTERLINE STATION AT 10000

5.78	9.23	1754.03	0.00	0.00	1754.89	0.86	0.17	0.01	1758.60
6800.	0.	6800.	0.	0.	911.	0.	164.	20.	1763.80
0.29	0.00	7.46	0.00	0.130	0.025	0.100	0.000	1744.80	9939.60
0.001062	150.	150.	150.	2	0	0	0.00	115.80	10055.41

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

CENTERLINE STATION AT 10000

5.79	8.75	1754.45	0.00	0.00	1755.14	0.69	0.06	0.08	1764.40
6800.	0.	6800.	0.	0.	1104.	0.	166.	20.	1763.50
0.29	0.00	6.15	0.00	0.130	0.025	0.100	0.000	1745.70	9928.30
0.000734	50.	70.	150.	2	0	0	0.00	143.44	10071.74

*SECNO 5.795

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

CENTERLINE STATION AT 10000

5.80	8.70	1754.40	0.00	0.00	1755.09	0.68	0.00	0.05	1764.40
6800.	0.	6800.	0.	0.	1024.	0.	166.	20.	1763.50
0.29	0.00	6.64	0.00	0.130	0.025	0.100	0.000	1745.70	9929.37
0.001501	1.	1.	1.	2	0	0	0.00	136.12	10070.68

*SECNO 5.613

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

**** BONANZA AVENUE ****
2* DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

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SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	THA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
5.81	8.57	1754.47	0.00	0.00	1755.36	0.89	0.17	0.10	1764.40
6800.	0.	6800.	0.	0.	897.	0.	168.	20.	1763.50
0.29	0.00	7.58	0.00	0.130	0.025	0.100	0.000	1745.90	9928.46
0.002116	98.	98.	98.	2	0	0	0.00	121.94	10071.59

*SECNO 5.814

CENTERLINE STATION AT 10000

5.81	9.02	1754.92	0.00	0.00	1755.47	0.55	0.00	0.10	1764.40
6800.	0.	6800.	0.	0.	1146.	0.	168.	20.	1763.50
0.29	0.00	5.94	0.00	0.130	0.025	0.100	0.000	1745.90	9927.55
0.000656	1.	1.	1.	2	0	0	0.00	144.95	10072.50

1490 NH CARD USED
*SECNO 5.820

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.82	6.91	1754.41	0.00	0.00	1756.07	1.66	0.04	0.56	1760.70
6800.	0.	6800.	0.	0.	657.	0.	168.	20.	1760.10
0.30	0.00	10.35	0.00	0.130	0.032	0.100	0.000	1747.50	9927.31
0.005460	30.	30.	30.	3	0	0	0.00	122.74	10050.05

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.960

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.96	8.46	1757.86	0.00	0.00	1758.89	1.03	2.76	0.06	1759.70
6800.	0.	6800.	0.	0.	836.	0.	181.	23.	1762.40
0.32	0.00	8.14	0.00	0.130	0.032	0.100	0.000	1749.40	9919.51
0.002766	750.	730.	650.	3	0	0	0.00	134.83	10054.34

1490 NH CARD USED
*SECNO 6.160

CENTERLINE STATION AT 10000

6.16	9.19	1760.99	0.00	0.00	1762.43	1.44	3.42	0.12	1763.00
5900.	0.	5900.	0.	0.	613.	0.	198.	25.	1764.90
0.35	0.00	9.62	0.00	0.130	0.032	0.100	0.000	1751.80	9944.84
0.003944	1056.	1056.	1056.	3	0	0	0.00	99.85	10044.70

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 6.350

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

6.35	6.95	1767.15	0.00	0.00	1769.37	2.21	6.70	0.23	1771.80
5900.	0.	5900.	0.	0.	494.	0.	211.	28.	1771.80
0.37	0.00	11.94	0.00	0.130	0.045	0.100	0.000	1760.20	9958.92
0.013671	11 .	1034.	950.	3	0	0	.00	88.30	10047.22

1490 NH CARD USED

*SECNO 6.400

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9862.0 10128.0 TYPE= 1 TARGET= 266.000
ELENCL= 1775.10 ELENCR= 1774.00
CENTERLINE STATION AT 10000

6.40	6.29	1773.29	1773.29	0.00	1775.49	2.20	4.48	0.00	1775.00
5900.	0.	5887.	13.	0.	494.	14.	215.	28.	1773.30
0.38	0.00	11.92	0.93	0.130	0.045	0.100	0.000	1766.40	9949.90
0.017334	300.	292.	270.	3	5	0	0.00	154.74	10105.49

1490 NH CARD USED
*SECNO 6.570

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1781.60 ELREA= 1781.60

CENTERLINE STATION AT 10000

6.57	11.01	1779.51	0.00	0.00	1780.21	0.70	4.57	0.15	1781.60
5900.	0.	5903.	0.	0.	877.	0.	228.	31.	1781.60
0.42	0.00	6.73	0.00	0.130	0.045	0.100	0.000	1768.50	9934.47
0.002560	920.	856.	500.	4	0	0	0.00	99.77	10034.24

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SECNO	DEPTH	C*SEL	CRIWS	*SELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TRA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1491 NH CARD USED
*SECNO 6.710

3470 ENCROACHMENT STATIONS= 14942.0 15039.0 TYPE= 1 TARGET= 97.000
ELENCL= 1784.80 ELENCR= 1784.80
CENTERLINE STATION AT 15000

6.71	11.72	1781.02	0.00	0.00	1781.82	0.81	1.58	0.03	1784.80
5900.	0.	5900.	0.	0.	817.	0.	243.	32.	1784.80
0.45	0.00	7.22	0.00	0.130	0.035	0.100	0.000	1769.30	14946.49
0.001649	65.	780.	450.	2	0	0	0.00	88.40	15034.89

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 51,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
4.420	0.00	0.00	0.00	1724.20	7800.00	1733.90	0.00	1734.71	33.69	7.22	1079.79	1343.89
4.437	90.00	0.00	0.00	1724.00	7800.00	1734.27	0.00	1734.99	24.63	6.84	1140.85	1571.59
4.438	1.00	1737.50	1739.70	1724.00	7800.00	1734.20	0.00	1735.07	59.98	7.51	1038.36	1007.12
4.456	98.00	1737.50	1739.70	1724.00	7800.00	1734.78	0.00	1735.66	60.40	7.53	1035.26	1003.62
4.457	1.30	0.00	0.00	1724.00	7800.00	1735.15	0.00	1735.75	18.49	6.21	1256.06	1813.86
4.470	60.00	0.00	0.00	1724.80	6800.00	1735.13	0.00	1736.09	42.76	7.86	864.95	1039.92
4.570	562.00	0.00	0.00	1725.00	6800.00	1737.53	0.00	1738.09	28.96	6.02	1129.11	1263.55
4.680	340.00	0.00	0.00	1725.20	6800.00	1738.67	0.00	1739.39	20.34	5.82	1167.44	1507.92
4.695	100.00	0.00	0.00	1725.60	6800.00	1739.44	0.00	1739.58	3.58	2.96	2296.15	3593.86
4.696	1.00	1740.30	1740.90	1725.60	6800.00	1739.23	0.00	1739.80	105.42	6.09	1116.33	662.29
4.714	98.00	1740.30	1740.90	1725.60	6800.00	1741.34	0.00	1741.64	138.27	6.72	1014.42	578.26
4.715	1.00	0.00	0.00	1725.60	6800.00	1741.11	0.00	1741.22	2.43	2.62	2722.29	4363.85
4.720	50.00	0.00	0.00	1728.30	6800.00	1740.58	0.00	1741.40	7.88	5.22	1302.66	2422.46
4.750	150.00	0.00	0.00	1728.30	6800.00	1741.13	0.00	1741.52	7.55	5.15	1321.43	2474.56
4.940	965.00	0.00	0.00	1730.10	6800.00	1741.88	0.00	1742.41	10.60	5.85	1161.53	2088.46
5.180	1277.00	0.00	0.00	1732.10	6800.00	1743.31	0.00	1743.96	13.38	6.48	1048.85	1859.34
5.205	150.00	0.00	0.00	1732.90	6800.00	1743.83	0.00	1744.19	7.38	4.99	1362.31	2503.72

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
5.206	1.00	1749.50	1750.70	1732.90	6800.00	1743.78	0.00	1744.21	16.02	5.29	1284.84	1699.02
5.224	98.00	1749.50	1750.70	1733.10	6800.00	1743.90	0.00	1744.46	22.36	6.01	1132.04	1437.90
5.225	1.00	0.00	0.00	1733.10	6800.00	1744.14	0.00	1744.52	7.03	4.91	1385.84	2564.24
5.240	60.00	0.00	0.00	1733.10	6800.00	1744.04	0.00	1744.73	14.64	6.68	1017.90	1777.26
* 5.460	1198.00	0.00	0.00	1741.40	6800.00	1747.88	1747.88	1750.55	105.46	13.11	518.67	662.16
5.750	1532.00	0.00	0.00	1744.80	6800.00	1753.81	0.00	1754.72	11.56	7.68	885.37	1999.61
5.780	150.00	0.00	0.00	1744.80	6800.00	1754.03	0.00	1754.89	10.62	7.46	911.19	2086.76
5.794	75.00	0.00	0.00	1745.70	6800.00	1754.45	0.00	1755.04	7.34	6.16	1104.27	2510.71
5.795	1.00	1763.50	1764.40	1745.70	6800.00	1754.40	0.00	1755.09	15.01	6.64	1024.27	1755.16
5.813	98.00	1763.50	1764.40	1745.90	6800.00	1754.47	0.00	1755.36	21.16	7.58	896.69	1478.25
5.814	1.00	0.00	0.00	1745.90	6800.00	1754.92	0.00	1755.47	6.58	5.94	1145.62	2650.32
5.820	30.00	0.00	0.00	1746.50	6800.00	1754.41	0.00	1756.07	54.60	10.35	656.89	920.29

	5.960	730.00	0.00	0.00	1745.40	6800.00	1767.86	0.00	1758.89	27.66	8.14	835.63	1292.91
	6.160	1156.00	0.00	0.00	1751.80	5900.00	1768.99	0.00	1762.43	39.44	9.62	613.07	939.45
	6.350	1104.00	0.00	0.00	1760.20	5900.00	1767.15	0.00	1769.37	136.71	11.94	494.24	504.60
*	6.400	292.00	0.00	0.00	1766.40	5900.00	1773.29	1773.29	1775.49	173.34	11.92	507.63	448.15
	6.570	856.00	0.00	0.00	1768.50	5900.00	1779.51	0.00	1780.21	25.60	6.73	876.63	1165.99
	6.710	780.00	0.00	0.00	1769.30	5900.00	1781.02	0.00	1781.83	16.49	7.22	817.21	1453.00

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.420	7800.00	1733.90	0.00	0.00	0.00	143.49	0.00
4.437	7800.00	1734.27	0.00	0.37	0.00	128.22	90.00
4.438	7800.00	1734.20	0.00	-0.07	0.00	119.98	1.00
4.456	7800.00	1734.78	0.00	0.59	0.00	114.28	98.00
4.457	7800.00	1735.15	0.00	0.37	0.00	131.19	1.00
4.470	6800.00	1735.13	0.00	-0.02	0.00	110.38	60.00
4.570	6800.00	1737.53	0.00	2.40	0.00	125.72	562.00
4.680	6800.00	1738.87	0.00	1.34	0.00	115.14	540.00
4.695	6800.00	1739.44	0.00	0.58	0.00	173.95	100.00
4.696	6800.00	1739.23	0.00	-0.22	0.00	173.95	1.00
4.714	6800.00	1740.34	0.00	1.12	0.00	201.74	98.00
4.715	6800.00	1741.11	0.00	0.77	0.00	445.83	1.00
4.720	6800.00	1740.98	0.00	-0.14	0.00	136.30	50.00
4.750	6800.00	1741.10	0.00	0.13	0.00	136.77	150.00
4.940	6800.00	1741.88	0.00	0.77	0.00	128.49	965.00
5.180	6800.00	1743.31	0.00	1.43	0.00	116.39	1277.00
5.205	6800.00	1743.80	0.00	0.49	0.00	145.55	150.00
5.206	6800.00	1743.78	0.00	-0.02	0.00	142.65	1.00
5.224	6800.00	1743.90	0.00	0.12	0.00	128.07	98.00
5.225	6800.00	1744.14	0.00	0.24	0.00	147.00	1.00
5.240	6800.00	1744.04	0.00	-0.10	0.00	115.71	60.00
* 5.460	6800.00	1747.88	0.00	3.84	0.00	97.02	1158.00

5.750	6800.00	1753.31	0.00	5.93	0.00	114.98	1532.00
5.780	6800.00	1754.03	0.00	0.22	0.00	115.80	150.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	5.794	6800.00	1754.45	0.00	0.42	0.00	143.44	70.00
	5.795	6800.00	1754.40	0.00	-0.05	0.00	136.12	1.00
	5.813	6800.00	1754.47	0.00	0.07	0.00	121.94	98.00
	5.814	6800.00	1754.92	0.00	0.45	0.00	144.55	1.00
	5.820	6800.00	1754.41	0.00	-0.51	0.00	122.74	30.00
	5.960	6800.00	1757.86	0.00	3.46	0.00	134.83	730.00
	6.160	5900.00	1760.99	0.00	3.13	0.00	99.85	1056.00
	6.350	5900.00	1767.15	0.00	6.16	0.00	88.30	1004.00
*	6.400	5900.00	1773.29	0.00	6.13	0.00	154.74	292.00
	6.570	5900.00	1779.51	0.00	6.22	0.00	95.77	856.00
	6.710	5900.00	1781.02	0.00	1.51	0.00	86.40	780.00

1
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SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=     5.460  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     5.460  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     5.460  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     6.400  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.400  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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1
28-APR-88 16:31:15 PAGE 1

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

GR	1744.000	15503.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3896.000	0.130	8066.000	0.050	9933.000	0.045	10067.000	0.100
NH	15905.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

1

3-MAY-88 10:10:06 PAGE 2

		CENTERLINE STATION AT 10000								
X1	4.436	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1736.000	9933.000	1724.000	9954.000	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9984.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000
GR	1736.000	10013.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

QT	2.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10097.000	0.050
NH	11360.000	0.100	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.470	41.000	9919.000	10050.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1752.000	1595.000	1743.000	2035.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	8200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9902.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000	1738.800	10072.000	1737.100	10078.000

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   3-MAY-88 TIME   10:10:05          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX                 XXXXX
X     X  X        X     X               X     X
X     X  X        X                     X     X
XXXXXXX  XXXX     X           XXXXX     XXXXX
X     X  X        X                     X
X     X  X        X     X               X
X     X  XXXXXXX   XXXXX                XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  51,52,53,54,55
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR (MIDDLE REACH)                10/87     SRM

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        1.        0.  0.000000      0.00      0.0       0.  1738.400     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      -1.000     1.000    -1.000     .000      0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.050     0.027     0.045     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       2.000 24000.000 84000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NH       5.000     0.045  3880.000     0.130  8050.000     0.050  9935.000     0.045 10132.000     0.100
NH   15892.000     1.000     0.100     0.300     0.000     0.000     0.000     0.000     0.000     0.000
                SECNDERIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 10000
X1       4.420    27.000  9935.000 10132.000   992.000   992.000   992.000     0.000     0.000     0.000
GR    1748.000  2045.000  1744.000  2325.000  1740.000  3060.000  1740.000  3515.000  1736.000  3675.000
GR    1736.000  3880.000  1736.000  6450.000  1736.500  8050.000  1735.700  9731.000  1739.700  9794.000
GR    1737.400  9813.000  1737.000  9935.000  1724.900  9956.000  1724.800 10000.000  1724.200 10052.000
GR    1732.300 10072.000  1735.400 10095.000  1737.600 10132.000  1737.600 10179.000  1738.000 10236.000
GR    1736.000 10750.000  1735.600 11580.000  1736.000 12365.000  1740.000 13440.000  1744.000 14870.000
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GR	1737.700	1 237.000	1737.100	10310.000	1738.400	10373.100	1739.400	10392. 00	1737.300	10397.000
GR	1738.400	10434.000	1736.000	11360.000	1740.000	12920.000	1744.000	13910.000	1748.000	14620.000

GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	5914.000	0.055
NH	10061.000	0.070	10493.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.570	43.000	5914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
GR	1756.000	1330.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1738.000	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1738.800	9862.000	1737.300	9886.000	1735.100	9914.000	1736.900	9930.000	1735.600	9953.000
GR	1725.600	9974.000	1727.100	9989.000	1726.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.800	10040.000	1737.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	1 089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384. 00	1735.400	10403.000
GR	1737.300	10405.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1748.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10059.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.660	26.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
GR	1760.000	1210.000	1756.000	1580.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000	1740.000	9320.000	1740.000	9935.000
GR	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000	1726.200	9989.000	1725.200	10010.000
GR	1728.900	10012.000	1723.100	10025.000	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000
GR	1740.000	10065.000	1744.000	13035.000	1748.000	13975.000	1752.000	14925.000	1756.000	15500.000
GR	1760.000	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10087.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.695	21.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1725.600	10072.200	1733.000	10086.800
GR	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000
GR	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	11800.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE	STATION AT	10000						
X1	4.696	35.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1733.000	9930.000	1733.000	9931.500
GR	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300	1733.000	9977.700	1725.600	9977.800
GR	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900	1725.600	10024.000	1725.600	10068.600
GR	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200	1733.000	10086.800	1740.000	10087.000
GR	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000

ET	0.000	4.100	0.000	0.000	11800.000	0.000	0.000	0.000	0.000	0.000

**** CHARLESTON BOULEVARD ****
2° DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE	STATION AT	10000						
X1	4.714	35.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000

BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1741.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1733.000	9928.000	1733.000	9933.500
GR	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200	1733.000	9979.700	1725.600	9979.800
GR	1725.600	10020.400	1733.000	10020.500	1733.000	10025.900	1725.600	10026.000	1725.600	10066.600
GR	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200	1733.000	10086.800	1740.000	10087.000
GR	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000
ET	1.000	4.100	0.000	0.000	118000.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.715	21.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1725.600	10072.200	1733.000	10086.800
GR	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000
GR	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3680.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	118000.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.720	33.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000
GR	1744.000	3050.000	1744.000	3680.000	1740.000	4875.000	1740.000	6390.000	1744.000	7295.000
GR	1744.000	8675.000	1742.300	9833.000	1741.900	9954.000	1729.600	9976.000	1729.200	9988.000
GR	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000	1729.600	10028.000	1729.900	10055.000
GR	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000	1743.500	10096.000	1743.900	10137.000
GR	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000	1744.000	13400.000	1748.000	14690.000
GR	1752.000	15375.000	1755.000	15925.000	1760.000	16450.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.100	0.000	0.100
NH	6.000	0.130	1810.000	0.045	3680.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NH	6.000	0.130	3395.000	0.045	3280.000	0.100	7641.000	0.045	9857.000	0.035
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10097.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000
GR	1760.000	1720.000	1756.000	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9889.000
GR	1745.600	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000

GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000
GR	1744.000	13551.000	1748.000	14300.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.130	5425.000	0.045	9330.000	0.065	9505.000	0.035	10040.000	0.130
NH	17355.000	0.040	18900.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.180	27.000	9905.000	10140.000	1100.000	1277.000	1277.000	0.000	0.000	0.000
GR	1760.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1752.000	3575.000
GR	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000	1748.000	9330.000	1753.500	9803.000
GR	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000	1732.100	9937.000	1732.300	9978.000
GR	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000	1735.500	10017.000	1737.300	10029.000
GR	1750.800	10040.000	1753.700	10071.000	1752.000	10200.000	1752.000	14875.000	1756.000	15780.000
GR	1760.000	17355.000	1770.000	18900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045

NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17630.000	0.040	18935.000	0.000

CENTERLINE STATION AT 10000

X1	5.205	22.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000	1732.900	9948.000	1732.900	10052.000
GR	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000
GR	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.206	36.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000	1732.900	9950.000	1748.600	9950.100
GR	1748.600	9951.500	1732.900	9951.600	1732.900	9982.800	1748.600	5982.900	1748.600	9984.300
GR	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700	1748.600	10017.100	1732.900	10017.200
GR	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900	1732.900	10050.000	1748.600	10085.000
GR	1752.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000
GR	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**** STEWART AVENUE ****
2# DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

X1	5.224	36.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000	1733.100	9948.000	1748.600	9948.100
GR	1748.600	9953.500	1733.100	9953.600	1733.100	9980.800	1748.600	9980.900	1748.600	9986.300
GR	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700	1748.600	10019.100	1733.100	10019.200
GR	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900	1733.100	10052.000	1748.600	10085.000
GR	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000
GR	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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CENTERLINE STATION AT 10000

X1	5.225	22.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000	1733.100	9948.000	1733.100	10052.000
GR	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000
GR	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000

NH	10.000	0.040	2530.000	0.100	3430.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.030	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.240	30.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1772.000	2085.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3430.000	1752.000	3530.000	1752.000	3725.000	1748.000	5155.000	1748.000	6415.000
GR	1748.000	7065.000	1752.000	9310.000	1754.500	9803.000	1751.800	9826.000	1751.900	9875.000
GR	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000	1734.700	9988.000	1733.300	9997.000
GR	1733.300	10002.000	1736.900	10017.000	1738.300	10029.000	1751.800	10040.000	1754.700	10071.000
GR	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000	1760.000	17670.000	1770.000	18830.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3110.000	0.130	8140.000	0.040	9516.000	0.035	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.460	36.000	9916.000	10051.000	1198.000	1198.000	1198.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2325.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000

GR	1760.000	3110.000	1760.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	8140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10005.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.000	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000
GR	1758.900	10191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	2785.000	0.120	4110.000	0.145	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000
ET	0.000	4.100	0.000	0.000	10244.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.750	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9605.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.600	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.300	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10368.000	1764.800	10376.000	1763.800	10430.000	1764.000	10465.000
GR	1764.000	11815.000	1760.500	10590.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17365.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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		CENTERLINE STATION AT 10000								
X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10091.000	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10256.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.794	22.000	9911.000	10091.000	50.000	150.000	70.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.200	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10256.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9983.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9548.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10256.000	0.000	0.000	0.000	0.000	0.000
		**** BONANZA AVENUE ****								
		2' DEBRIS LOADING								
		NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	5.813	36.000	9911.000	10091.000	58.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9985.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1762.500	9945.700	1762.500	9950.900

GR	1745.900	9951.000	1745.900	9980.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500
GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ET	0.000	4.100	0.000	0.000	10256.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.814	22.000	9911.000	10091.800	1.000	1.000	1.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.100	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9605.000	0.050	9913.000	0.032
NH	10069.000	0.040	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10430.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.820	30.000	9913.000	10069.800	30.000	30.000	30.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4650.000	1760.000	5475.000	1760.000	6855.000	1763.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.800	9857.000	1761.400	9883.000	1760.300	9897.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1749.400	9966.000	1745.900	9973.000
GR	1745.900	10027.000	1760.100	10069.000	1759.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	8.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7995.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	15315.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.960	26.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
GR	1776.000	1875.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	9888.000	1761.800	9897.000	1759.700	9913.000
GR	1751.800	9941.000	1752.000	9953.000	1752.000	9966.000	1749.400	9973.000	1749.400	10027.000
GR	1762.400	10069.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	9693.000	0.040	9939.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10900.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.160	48.000	9939.000	10154.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
GR	1780.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1765.100	9786.000	1766.500	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1766.700	10044.000	1764.900	10054.100
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10228.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000

1

NH	8.000	0.090	7425.000	0.130	9676.000	0.040	9549.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	5100.000	10260.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
		CONFLUENCE OF WASHINGTON AVE CHANNEL								

X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000
X4	2.000	1774.000	6600.000	1776.000	10260.000	0.000	0.000	0.000	0.000	0.000
GR	1784.000	1180.000	1780.000	1770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1760.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.600	10125.000	1772.300	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000
ET	2.000	23540.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.090	8115.000	0.130	9946.000	0.045	10057.000	0.100	11980.000	0.040
NH	16070.000	0.130	18375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	10297.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.400	34.000	9946.000	10057.000	300.000	270.000	292.000	0.000	0.000	0.000
GR	1784.000	1215.000	1780.000	2265.000	1776.000	6430.000	1776.000	8115.000	1776.000	9640.000
GR	1775.600	9711.000	1773.900	9772.000	1773.900	9799.000	1773.600	9810.000	1775.100	9862.000
GR	1775.000	9946.000	1767.100	9964.000	1767.100	9983.000	1766.400	9991.000	1766.400	9995.000
GR	1766.400	10009.000	1773.200	10033.000	1773.300	10057.000	1773.000	10073.000	1772.700	10087.000
GR	1774.000	10128.000	1772.600	10143.000	1772.600	10183.000	1772.600	10224.000	1766.600	10239.000
GR	1766.600	10247.000	1774.100	10268.000	1776.200	10297.000	1776.000	10850.000	1776.000	11980.000
GR	1776.000	13470.000	1778.900	16070.000	1780.000	17095.000	1784.000	18375.000	0.000	0.000
NH	7.000	0.090	8865.000	0.100	9932.000	0.045	10035.000	0.045	10610.000	0.100
NH	11340.000	0.045	15790.000	0.130	18305.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	4925.000	10035.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.570	29.000	9932.000	10035.000	920.000	500.000	856.000	0.000	0.000	0.000
GR	1768.000	35.000	1784.000	1250.000	1780.000	4925.000	1780.000	8865.000	1777.800	9808.000
GR	1777.800	9828.000	1778.800	9894.000	1781.600	9932.000	1770.600	9945.000	1769.300	9972.000
GR	1769.300	9982.000	1768.500	9991.000	1768.500	10009.000	1773.300	10020.000	1773.300	10032.000
GR	1781.600	10035.000	1778.600	10061.000	1777.500	10085.000	1779.600	10129.000	1779.600	10224.000
GR	1776.800	10433.000	1776.000	10475.000	1776.000	10610.000	1780.000	11340.000	1780.000	15790.000
GR	1780.000	17135.000	1784.000	17805.000	1788.000	18025.000	1790.000	18305.000	0.000	0.000
NH	9.000	0.130	4691.000	0.100	13425.000	0.130	14809.000	0.030	14542.000	0.035
NH	15039.000	0.045	16195.000	0.100	16755.000	0.045	21140.000	0.130	22860.000	0.000
ET	0.000	4.100	0.000	10000.000	15040.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 15000								
X1	6.710	42.000	14542.000	15039.000	650.000	450.000	780.000	0.000	0.000	0.000
GR	1796.000	2680.000	1792.000	3960.000	1792.000	4690.000	1784.000	8200.000	1784.000	12020.000
GR	1784.000	13425.000	1780.000	14065.000	1780.000	14680.000	1777.400	14809.000	1777.600	14835.000
GR	1776.500	14910.000	1779.000	14914.000	1784.800	14942.000	1773.000	14956.000	1769.300	14987.000
GR	1769.300	14997.000	1769.300	15012.000	1771.900	15025.000	1784.800	15039.000	1781.900	15040.000
GR	1781.900	15071.000	1781.000	15110.000	1781.300	15136.000	1781.200	15150.000	1781.200	15167.000
GR	1780.000	15195.000	1782.100	15222.000	1782.100	15298.000	1781.800	15387.000	1779.800	15404.000
GR	1779.800	15461.000	1781.600	15472.000	1781.000	15531.000	1780.000	15640.000	1780.000	15710.000
GR	1782.000	16195.000	1782.000	16755.000	1784.000	21140.000	1784.000	21860.000	1788.000	22235.000

GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPHID	ENDST

*PROF 1

CCHV= 0.100 CSHV= 0.300
1490 NH CARD USED

*SECNO 4.420

3265 DIVIDED FLOW

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 10000

4.42	14.20	1738.40	0.00	1738.40	1738.57	0.17	0.00	0.00	1737.00
24000.	9213.	9593.	5194.	11314.	1853.	5764.	0.	0.	1737.60
0.00	0.81	5.18	0.90	0.109	0.045	0.100	0.000	1724.20	3579.00
0.001280	992.	992.	992.	3	0	0	0.00	8674.39	13010.01

0
CCHL= 0.300 CCHV= 0.500
1490 NH CARD USED
*SECNO 4.437

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

4.44	14.49	1738.49	0.00	0.00	1738.69	0.20	0.10	0.01	1736.00
24000.	9378.	9536.	5385.	12034.	1702.	6160.	40.	18.	1736.00
0.01	0.78	5.60	0.83	0.106	0.045	0.100	0.000	1724.00	3591.40
0.001037	90.	90.	90.	2	0	0	0.00	8759.22	13049.22

0
*SECNO 4.438

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

CENTERLINE STATION AT 10000

4.44	14.71	1738.71	0.00	0.00	1738.74	0.03	0.00	0.05	1736.00
24000.	12921.	3819.	7260.	13048.	1423.	6766.	41.	18.	1736.00
0.01	0.99	2.68	1.07	0.108	0.045	0.100	0.000	1724.00	3582.55
0.001587	1.	1.	1.	2	0	0	-518.04	8987.93	13108.66

0
1
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SECNO	DEPTH	QCSEL	QRIWS	QSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	WCL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.456

3265 DIVIDED FLOW

337[illegible] NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.5[illegible] MAX ELLC= 1739.7[illegible]

**** NELLIS BOULEVARD ****
1* DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

4.46	14.86	1738.86	0.00	0.00	1738.89	0.03	0.14	0.00	1736.00
24000.	13265.	3339.	7395.	13922.	1359.	7224.	90.	39.	1736.00
0.03	0.35	2.46	1.02	0.107	0.045	0.100	0.000	1724.00	3576.57
0.001354	98.	98.	98.	2	0	0	-520.40	9115.50	13148.85

*SECNO 4.457

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

4.46	14.81	1738.81	0.00	0.00	1738.94	0.14	0.00	0.06	1736.00

```
   24000.    10089.     8506.     5405.    13860.     1744.     7116.       90.       39.    1736.00
     0.03     0.73      4.88      0.76     0.104     0.045     0.100     0.000   1724.00    3578.75
 0.000760       1.        1.        1.         2         0         0      0.00   9068.95   13134.19

 FLOW DISTRIBUTION FOR SECNO=      4.46          CWSEL=   1738.81

 STA=    3579.     3896.     6466.     8066.     9278.     9533.    10067.    11595.    12380.    13134.
  PER Q=    5.1      18.8      18.0       5.2       2.8      35.4      11.9       8.4       2.3
   AREA=   732.8    7212.1    4090.0    1397.3     428.1    1744.0    3698.1    2359.9    1058.2
    VEL=     1.7       0.6       0.6       0.9       1.6       4.9       0.8       0.9       0.5

 1490 NH CARD USED
 *SECNO 4.470

 3265 DIVIDED FLOW

                  CENTERLINE STATION AT 10000
      4.47     13.92   1738.72      0.00      0.00   1739.20      0.48      0.08      0.17   1736.90
   24000.      7787.    13617.     5595.     6837.     1293.     3267.      114.       50.   1738.80
     0.04      1.14      8.21      1.71     0.117     0.045     0.064     0.000   1724.80    3734.79
 0.003410       60.       60.       60.         2         0         0      0.00   6545.01   12422.31

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TLA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 CCHV=    0.100 CEHV=    0.300
 1490 NH CARD USED
 *SECNO 4.570

 3265 DIVIDED FLOW

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                  CENTERLINE STATION AT 10000
      4.57     15.98   1740.98   1740.98      0.00   1741.43      0.44      1.84      0.00   1739.10
   24000.      7213.    12035.     4752.     7455.     1623.     2544.      243.      134.   1738.80
     0.07      0.97      7.42      1.87     0.109     0.055     0.370     0.000   1725.20    2686.31
 0.003303       350.      562.      800.         4        10         0      0.00   8448.87   12225.27
0
 1490 NH CARD USED
 *SECNO 4.680
                  CENTERLINE STATION AT 10000
      4.68     17.09   1742.29      0.00      0.00   1742.62      0.34      1.18      0.01   1740.00
   24000.     11621.    10963.     1416.    13239.     1605.     1944.      375.      209.   1740.00
     0.11      0.83      6.83      0.73     0.130     0.100     0.100     0.000   1725.20    3943.14
 0.002008       350.      540.      550.         2         0         0      0.00   7820.76   11763.90
0
 CCHV=    0.300 CEHV=    0.500
 1490 NH CARD USED
 *SECNO 4.695
                  CENTERLINE STATION AT 10000
      4.70     16.91   1742.51      0.00      0.00   1742.77      0.26      0.13      0.02   1740.30
   24000.      8443.    14807.      750.    14023.     2825.     1719.      415.      227.   1740.50
     0.12      0.60      5.23      0.44     0.130     0.050     0.100     0.000   1725.60    3983.03
 0.000858       170.      100.      100.         2         0         0      0.00   7818.27   11801.31
0
 *SECNO 4.696

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

                  CENTERLINE STATION AT 10000
```

4.70	17.19	1742.79	0.00	0.00	1742.84	0.05	0.00	0.06	1740.30	
24000.	19278.	4722.	0.	15718.	1515.	0.	416.	227.	1740.00	
0.12	1.23	3.12	0.10	0.130	0.050	0.100	0.000	1725.60	3931.79	
0.003090	1.	1.	1.	2	0	0	-1303.50	6155.29	10087.08	

0
1

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.714

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.90

**** CHARLESTON BOULEVARD ****
2* DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

4.71	17.47	1743.07	0.00	0.00	1743.10	0.04	0.27	0.00	1740.30
24000.	19958.	4042.	0.	17385.	1459.	0.	456.	241.	1740.00
0.13	1.15	2.77	0.09	0.130	0.050	0.100	0.000	1725.60	3881.85
0.002369	98.	98.	98.	2	0	0	-1303.50	6205.25	10087.09

0
*SECNO 4.715
CENTERLINE STATION AT 10000

4.72	17.39	1742.98	0.00	0.00	1743.19	0.20	0.00	0.08	1740.30
24000.	10162.	13838.	0.	16887.	2912.	0.	457.	241.	1740.50
0.13	0.60	4.75	0.00	0.130	0.050	0.100	0.000	1725.60	3896.70
0.[illegible]68	1.	1.	1.	2	0	1	0.00	6190.37	10087.08

0
1490 NH CARD USED
*SECNO 4.720

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

4.72	14.47	1742.77	1742.77	0.00	1744.16	1.39	0.06	0.59	1741.90
24000.	6736.	17264.	0.	6161.	1553.	0.	473.	246.	1743.50
0.14	1.09	11.12	0.00	0.128	0.035	0.100	0.000	1728.30	4186.08
0.002968	50.	50.	50.	4	10	0	0.00	3356.54	10094.84

0
CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.750
1

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

4.75	15.64	1743.34	0.00	0.00	1744.53	0.59	0.29	0.08	1741.90
24000.	10157.	13841.	2.	10642.	1719.	11.	507.	260.	1743.50
0.14	0.95	8.05	0.20	0.118	0.035	0.100	0.000	1728.30	3894.64
0.001377	150.	150.	150.	4	0	0	0.00	4658.28	10179.38

1490 NH CARD USED
*SECNO 4.940

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

4.94	13.53	1743.63	0.00	0.00	1748.24	4.61	2.51	1.21	1745.60
24000.	0.	24000.	0.	0.	1393.	0.	633.	302.	1747.90
0.16	0.00	17.23	0.00	0.096	0.035	0.100	0.000	1730.10	9916.17
0.7768	751.	965.	965.	8	0	0	.00	135.29	10051.47

1490 NH CARD USED
*SECNO 5.180

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.18	18.11	1751.21	0.00	3.31	1750.45	0.24	1.77	0.44	1750.50
24000.	13067.	10913.	0.	11694.	1912.	0.	830.	375.	1750.80
0.27	1.12	5.71	0.00	0.054	0.035	0.100	0.000	1732.10	4086.11
0.000583	1100.	1277.	1277.	3	0	0	0.00	5567.49	10039.51

CCHV= 0.30 CEHV= 1.600
1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWIC	ENDST

*SECNO 5.205

CENTERLINE STATION AT 10000

5.20	17.42	1750.32	0.00	0.00	1750.53	0.21	0.08	0.01	1750.20
24000.	11816.	12193.	1.	12626.	2396.	16.	879.	395.	1749.90
0.28	0.94	5.09	0.09	0.057	0.035	0.130	0.000	1732.90	3945.65
0.000450	150.	150.	150.	3	0	0	0.00	6213.12	10158.77

*SECNO 5.206

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

CENTERLINE STATION AT 10000

5.21	17.63	1750.53	0.00	0.00	1750.58	0.05	0.00	0.05	1748.60
24000.	18345.	5655.	5.	13913.	2108.	35.	879.	395.	1748.60
0.28	1.32	2.68	0.15	0.057	0.035	0.130	0.000	1732.90	3911.07
0.000797	1.	1.	1.	2	0	0	-504.04	6303.00	10214.07

*SECNO 5.224

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.50 MAX ELLC= 1750.70

**** STEWART AVENUE ****
2* DEBRIS LOADING

NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.22	17.52	1750.62	0.00	0.00	1750.66	0.04	0.08	0.00	1748.60
24000.	19205.	4787.	7.	14402.	1878.	45.	916.	409.	1748.60
0.30	1.33	2.55	0.16	0.057	0.035	0.130	0.000	1733.10	3997.88
0.000781	98.	98.	98.	2	0	0	-505.14	6321.64	10219.52

0

*SECNO 5.225

CENTERLINE STATION AT 10000

5.22	17.46	1750.56	0.00	0.00	1750.72	0.16	0.00	0.06	1750.20
24000.	12764.	11232.	4.	14038.	2408.	38.	916.	409.	1749.90
0.30	0.91	4.66	0.11	0.057	0.035	0.130	0.000	1733.10	3997.64
0.000375	1.	1.	1.	2	0	0	0.00	6292.38	10200.03

0

149. NH CARD USED

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV LEFT/RIGHT
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	SSTA
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	ENDST
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	

*SECNO 5.24

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.24	17.16	1750.26	0.00	0.00	1751.10	0.84	0.04	0.34	1751.50
24000.	7976.	16024.	0.	6701.	1788.	0.	933.	417.	1751.80
0.30	1.19	8.96	0.00	0.073	0.035	0.130	0.000	1733.10	4343.64
0.001529	60.	60.	60.	2	0	0	0.00	4126.75	10038.75

0

CCHV= 0.100 CEHV= 0.300

1490 NH CARD USED

*SECNO 5.46

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.46	14.25	1755.65	1755.65	0.00	1756.92	1.27	2.50	0.13	1756.20
24000.	7992.	16008.	0.	6453.	1450.	0.	1159.	511.	1756.00
0.34	1.24	11.34	0.00	0.130	0.035	0.130	0.000	1741.40	5466.66
0.003019	1198.	1198.	1198.	20	9	0	0.00	2709.60	10049.71

0

1490 NH CARD USED

*SECNO 5.750

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.75	13.66	1756.46	0.00	0.00	1762.65	4.20	4.85	0.88	1758.60
24000.	0.	24000.	0.	0.	1460.	0.	1323.	561.	1763.80
0.37	0.00	16.44	0.00	0.040	0.025	0.130	0.000	1744.80	9930.31
0.003330	1532.	1532.	1532.	3	0	0	0.00	132.16	10062.47

0

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.760

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.78	15.05	1759.85	0.00	0.00	1763.15	3.30	0.41	0.09	1758.60
24000.	5.	23995.	0.	4.	1646.	0.	1329.	561.	1763.80
0.37	1.28	14.58	0.00	0.040	0.025	0.130	0.000	1744.80	9924.07
0.002296	150.	150.	150.	3	0	0	0.00	140.62	10064.69

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

5.79	18.30	1764.00	0.00	0.00	1764.13	0.13	0.02	0.95	1764.40
24000.	13003.	10997.	0.	14322.	2653.	0.	1340.	565.	1763.50
0.38	0.91	4.14	0.00	0.041	0.025	0.040	0.000	1745.70	4155.14
0.000143	50.	70.	150.	8	0	0	0.00	5749.23	10091.00

*SECNO 5.795

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

CENTERLINE STATION AT 10000

5.80	18.41	1764.11	0.00	0.00	1764.15	0.04	0.00	0.03	1764.40
24000.	18064.	5916.	0.	14950.	2266.	0.	1341.	565.	1763.50
0.38	1.21	2.61	0.00	0.041	0.025	0.040	0.000	1745.70	4144.82
0.000246	1.	1.	1.	2	0	0	-286.83	5811.85	10091.00

*SECNO 5.813

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

**** BONANZA AVENUE ****
2" DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.81	18.24	1764.14	0.00	0.00	1764.18	0.04	0.02	0.00	1764.40
24000.	18788.	5212.	0.	15056.	2006.	0.	1379.	578.	1763.50
0.40	1.25	2.60	0.00	0.041	0.025	0.040	0.000	1745.90	4143.10

```
 0.000260       98.       98.       98.        0         0         0  -290.19  5822.32 10091.00
0
 *SECNO 5.814

 3265 DIVIDED FLOW

                    CENTERLINE STATION AT 10000
      5.81     18.20  1764.13      0.00      0.00  1764.22      0.12      0.00      0.04  1764.40
    24000.     13359.   10641.       0.     14884.    2643.       0.     1380.      578.   1763.50
      0.40      0.90      4.03      0.00      0.041    0.025    0.040    0.000  1745.90  4145.89
 0.000136        1.        1.        1.         2         0         0     0.00  5805.32 10091.00
0
 1496 NH CARD USED
 *SECNO 5.820
                    CENTERLINE STATION AT 10000
      5.82     18.20  1764.13      0.00      0.00  1764.23      0.13      0.01      0.00  1760.70
    24000.     13866.    9511.     604.     12473.    2198.     418.     1391.      582.   1760.10
      0.40      1.11      4.33      1.45      0.046    0.032    0.040    0.000  1745.90  4188.09
 0.000268        30.       30.       30.         0         0         0     0.00  5993.92 10182.01
0
 CCHV=   0.100 CEHV=   0.300
 1496 NH CARD USED
 *SECNO 5.960

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
    Q         GLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TBA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 3725 CRITICAL DEPTH ASSUMED
                    CENTERLINE STATION AT 10000
      5.96     15.82  1765.22  1765.22      0.00  1766.14      0.92      0.38      0.24  1759.70
    24000.      5550.   17485.     965.     5173.    1944.     522.     1584.      677.   1762.40
      0.43      1.07      9.00      1.85      0.057    0.032    0.050    0.000  1749.40  5290.60
 0.001339       750.      730.      650.         2         5         0     0.00  5045.88 10336.48
0
 1490 NH CARD USED
 *SECNO 6.160

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                    CENTERLINE STATION AT 10000
      6.16     17.85  1768.85  1768.85      0.00  1770.51      1.66      1.80      0.22  1763.00
    24000.      2583.   17755.    3662.     1654.    1493.    1094.     1728.      772.   1764.90
      0.46      1.56     11.89      3.35      0.053    0.032    0.040    0.000  1751.80  7749.76
 0.002238      1056.     1056.     1056.        20         8         0     0.00  2756.24 10550.01
0
 1490 NH CARD USED
 *SECNO 6.350

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS
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3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 5100.0 10260.0 TYPE= 1 TARGET= 5160.000
CENTERLINE STATION AT 10000
CONFLUENCE OF WASHINGTON AVE CHANNEL

6.35	15.34	1775.54	1775.54	0.00	1776.65	1.11	2.90	0.05	1771.80
24000.	7162.	14403.	2436.	3919.	1354.	508.	1849.	847.	1771.80
0.50	1.83	10.64	4.79	0.066	0.045	0.040	0.000	1760.20	5100.00
0.003770	110.	1004.	950.	20	13	0	0.00	3278.27	10247.33

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XAR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 6.400
3665 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

6.40	11.14	1777.44	1777.44	0.00	1778.30	0.86	1.40	0.02	1775.00
23540.	9113.	10375.	4052.	6461.	951.	1107.	1897.	876.	1773.30
0.51	1.41	10.91	3.66	0.107	0.045	0.100	0.000	1766.40	4934.73
0.003685	300.	292.	273.	20	13	0	0.00	5333.27	10268.00

1491 NH CARD USED
*SECNO 6.570

3470 ENCROACHMENT STATIONS= 4925.0 10035.0 TYPE= 1 TARGET= 5110.000
CENTERLINE STATION AT 10000

6.57	13.13	1781.69	0.00	0.00	1782.17	0.48	3.83	0.04	1781.60
23540.	14094.	5446.	0.	9650.	1098.	0.	2894.	985.	100000.00
0.57	1.46	8.60	0.00	0.094	0.045	0.100	0.000	1768.50	4925.00
0.003310	920.	356.	500.	3	0	0	0.00	5110.00	10035.00

1490 NH CARD USED
*SECNO 6.710

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 10000.0 15040.0 TYPE= 1 TARGET= 5040.000
CENTERLINE STATION AT 15000

6.71	14.30	1783.60	0.00	0.00	1784.73	1.12	2.36	0.19	1784.80
23540.	11352.	12188.	0.	4535.	1054.	1.	2219.	1035.	1784.80
0.59	2.50	11.57	0.52	0.080	0.035	0.045	0.000	1769.30	13488.22
0.003349	650.	780.	450.	3	0	0	0.00	1542.88	15040.00

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982

ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	4.425	0.00	0.00	0.00	1724.20	24000.00	1738.40	0.00	1738.57	12.80	5.18	18931.74	6709.16
	4.437	90.00	0.00	0.00	1724.00	24000.00	1738.49	0.00	1738.69	10.37	5.60	19895.66	7453.79
	4.438	1.00	1737.50	1739.70	1724.00	24000.00	1738.71	0.00	1738.74	15.87	2.68	21237.39	6023.64
	4.456	98.00	1737.50	1739.70	1724.00	24000.00	1738.86	0.00	1738.89	13.54	2.46	22504.71	6521.15
	4.457	1.00	0.00	0.00	1724.00	24000.00	1738.81	0.00	1738.94	7.60	4.88	22720.26	8706.25
	4.470	60.00	0.00	0.00	1724.80	24000.00	1738.72	0.00	1739.20	34.10	8.21	11397.32	4109.87
*	4.570	562.00	0.00	0.00	1725.00	24000.00	1740.98	1740.98	1741.43	33.03	7.42	11621.38	4175.69
	4.680	540.00	0.00	0.00	1725.20	24000.00	1742.29	0.00	1742.62	20.08	6.83	16787.42	5355.37
	4.695	100.00	0.00	0.00	1725.60	24000.00	1742.51	0.00	1742.77	8.58	5.23	18570.30	8191.72
	4.696	1.00	1740.30	1740.90	1725.60	24000.00	1742.79	0.00	1742.84	30.90	3.12	17233.02	4317.75
	4.714	98.00	1740.30	1740.90	1725.60	24000.00	1743.07	0.00	1743.10	23.85	2.77	18843.83	4909.80
	4.715	1.00	0.00	0.00	1725.60	24000.00	1742.98	0.00	1743.19	6.80	4.75	15795.70	9200.66
*	4.720	50.00	0.00	0.00	1728.30	24000.00	1742.77	1742.77	1744.16	29.68	11.12	7713.74	4405.47
	4.750	150.00	0.00	0.00	1728.30	24000.00	1743.94	0.00	1744.53	13.77	8.05	12371.34	6467.96
	4.940	965.00	0.00	0.00	1730.10	24000.00	1743.63	0.00	1748.24	77.68	17.23	1392.74	2722.97
	5.180	1277.00	0.00	0.00	1732.10	24000.00	1750.21	0.00	1750.45	5.83	5.71	13605.96	9936.29
	5.205	150.00	0.00	0.00	1732.90	24000.00	1750.32	0.00	1750.53	4.50	5.09	15037.51	11313.33

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	5.206	1.00	1749.50	1750.70	1732.90	24000.00	1750.53	0.00	1750.58	7.97	2.68	16053.55	8501.74
	5.224	98.00	1749.50	1750.70	1733.10	24000.00	1750.62	0.00	1750.66	7.81	2.55	16325.15	8585.59
	5.225	1.00	0.00	0.00	1733.10	24000.00	1750.56	0.00	1750.72	3.75	4.66	16483.98	12398.46
	5.240	60.00	0.00	0.00	1733.10	24000.00	1750.26	0.00	1751.10	15.29	8.96	8489.04	6137.57
*	5.460	1198.00	0.00	0.00	1741.40	24000.00	1755.65	1755.65	1756.92	30.19	11.04	7902.43	4368.15
	5.750	1532.00	0.00	0.00	1744.80	24000.00	1758.46	0.00	1762.65	33.30	16.44	1459.79	4159.07
	5.780	150.00	0.00	0.00	1744.80	24000.00	1759.85	0.00	1763.15	22.96	14.58	1645.36	5008.84

	5.794	70.00	0.00	0.00	1745.70	24000.00	1764.00	0.00	1764.13	1.43	4.14	16975.73	20059.71
	5.795	1.00	1763.50	1764.40	1745.70	24000.00	1764.11	0.00	1764.15	2.46	2.61	17215.71	15310.15
	5.813	98.00	1763.50	1764.40	1745.90	24000.00	1764.14	0.00	1764.18	2.60	2.60	17062.31	14882.33
	5.814	1.00	0.00	0.00	1745.58	24000.00	1764.10	0.00	1764.22	1.36	4.03	17527.02	20598.63
	5.820	30.00	0.00	0.00	1745.90	24000.00	1764.10	0.00	1764.23	2.68	4.33	15089.21	14666.47
*	5.960	730.00	0.00	0.00	1745.48	24000.00	1765.22	1765.22	1766.14	13.35	9.00	7638.61	6559.45
*	6.160	1056.00	0.00	0.00	1751.80	24000.00	1768.85	1768.85	1770.51	22.38	11.89	4240.76	5072.97
*	6.350	1004.00	0.00	0.00	1760.20	24000.00	1775.54	1775.54	1776.65	37.71	10.64	5771.37	3908.96
*	6.400	292.00	0.00	0.00	1766.40	23540.00	1777.44	1777.44	1778.30	63.85	10.91	8519.58	2945.97
	6.570	856.00	0.00	0.00	1768.50	23540.00	1781.69	0.00	1782.17	33.10	8.60	10748.06	4091.62
	6.710	780.00	0.00	0.00	1765.30	23540.00	1783.60	0.00	1784.73	33.49	11.57	5589.55	4067.62

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CHSEL	DIFWSP	DIFVSX	DIFKHS	TOPWID	XLOC
	4.420	24000.00	1738.40	0.00	0.00	0.00	8674.39	0.00
	4.437	24000.00	1738.49	0.00	0.09	0.00	8799.22	90.00
	4.438	24000.00	1738.71	0.00	0.22	0.00	8987.93	1.00
	4.456	24000.00	1738.86	0.00	0.15	0.00	9115.50	98.00
	4.457	24000.00	1738.81	0.00	-0.05	0.00	9068.95	1.00
	4.470	24000.00	1738.72	0.00	-0.09	0.00	6545.01	60.00
*	4.570	24000.00	1740.98	0.00	2.27	0.00	8448.87	562.00
	4.680	24000.00	1742.29	0.00	1.30	0.00	7820.76	540.00
	4.695	24000.00	1742.51	0.00	0.22	0.00	7818.27	100.00
	4.696	24000.00	1742.79	0.00	0.28	0.00	6155.29	1.00
	4.714	24000.00	1743.07	0.00	0.28	0.00	6205.25	98.00
	4.715	24000.00	1742.98	0.00	-0.08	0.00	6190.37	1.00
*	4.720	24000.00	1742.77	0.00	-0.22	0.00	3356.94	50.00
	4.750	24000.00	1743.94	0.00	1.17	0.00	4658.28	150.00
	4.940	24000.00	1743.63	0.00	-0.31	0.00	135.29	965.00
	5.180	24000.00	1750.21	0.00	6.57	0.00	5567.49	1277.00
	5.205	24000.00	1750.32	0.00	0.11	0.00	6213.12	150.00

5.206	24000.00	1750.53	0.00	0.21	0.00	6303.00	1.00
5.224	24000.00	1750.62	0.00	0.08	0.00	6321.64	98.00
5.225	24000.00	1750.56	0.00	-0.06	0.00	6292.38	1.00
5.240	24000.00	1750.26	0.00	-0.30	0.00	4126.75	60.00
* 5.460	24000.00	1755.65	0.00	5.39	0.00	2709.60	1198.00
5.750	24000.00	1758.46	0.00	2.81	0.00	132.16	1532.00
5.780	24000.00	1759.85	0.00	1.40	0.00	140.62	150.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5.794	24000.00	1764.00	0.00	4.15	0.00	5749.23	70.00
5.795	24000.00	1764.11	0.00	0.11	0.00	5811.85	1.00
5.813	24000.00	1764.14	0.00	0.03	0.00	5822.32	98.00
5.814	24000.00	1764.10	0.00	-0.04	0.00	5805.32	1.00
5.820	24000.00	1764.10	0.00	0.00	0.00	5993.92	30.00
* 5.960	24000.00	1765.22	0.00	1.11	0.00	5045.88	730.00
* 6.160	24000.00	1768.85	0.00	3.64	0.00	2796.24	1056.00
* 6.350	24000.00	1775.54	0.00	6.69	0.00	3278.27	1004.00
• 6.400	23540.00	1777.44	0.00	1.90	0.00	5333.27	292.00
6.570	23540.00	1781.69	0.00	4.25	0.00	5110.00	856.00
6.710	23540.00	1783.60	0.00	1.91	0.00	1542.88	780.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 4.570 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 4.570 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 4.720 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 4.720 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 5.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.460 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 5.460 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 5.960 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.960 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 6.160 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.160 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.160 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=     6.350  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     6.350  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     6.350  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     6.400  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     6.400  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     6.400  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

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   3-MAY-88    10:10:39                                                    PAGE    1


  ***************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ***************************************************



 EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   3-MAY-88 TIME   10:19:13          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X           XXXXX     XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CORPS/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 500-YEAR (MIDDLE REACH)                    10/87     SRM

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
       0.       3.        0.        0.  0.000000      0.00      0.5       0.  1739.800     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
    -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000      0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000      0.000     0.000

NC      0.050      0.027      0.045      0.100      0.300      0.000      0.000      0.000      0.000      0.000
GT   2000.000  24000.000  84000.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NH      5.000      0.045   3880.000      0.130   8050.000      0.050   9935.000      0.045  10132.000      0.100
NH  15850.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                SECNDRIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 10000
X1      4.420     27.000   9935.000  10132.000    992.000    992.000    992.000      0.000      0.000      0.000
GR   1748.000   2045.000   1744.000   2335.000   1740.000   3060.000   1740.000   3515.000   1736.000   3675.000
GR   1736.000   3880.000   1736.000   6450.000   1736.500   8050.000   1739.700   9731.000   1739.700   9794.000
GR   1737.400   9813.000   1737.000   9935.000   1724.900   9956.000   1724.800  10000.000   1724.200  10052.000
GR   1732.300  10072.000   1735.400  10095.000   1737.600  10132.000   1737.600  10179.000   1738.000  10236.000
GR   1736.000  10750.000   1735.600  11580.000   1736.000  12365.000   1740.000  13440.000   1744.000  14870.000
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GR	1744.000	15500.000	1748.000	15890.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
MH	5.000	0.045	3896.000	0.130	8666.000	0.050	9933.000	0.045	10067.000	0.100
NH	15915.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.437	24.000	9933.000	10067.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.436	38.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9954.100	1736.000	9954.100	1736.000	9956.000	1724.000	9956.100
GR	1724.000	9934.000	1736.000	9984.100	1736.000	9986.000	1724.000	9986.100	1724.000	10014.000
GR	1736.000	10014.100	1736.000	10016.000	1724.000	10016.100	1724.000	10044.000	1736.000	10044.100
GR	1736.000	10046.000	1724.000	10046.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14835.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

**** NELLIS BOULEVARD ****
1' DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.456	38.000	9933.000	10067.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9747.000	1739.700	1739.700	9827.000	1737.500	1735.500	9933.000	1737.500	1736.000
BT	10067.000	1737.500	1736.000	10147.000	1737.600	1737.600	10194.000	1737.600	1737.600	10251.000
BT	1738.000	1738.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1736.000	9953.100	1736.000	9957.000	1724.000	9957.100
GR	1724.000	9983.000	1736.000	9983.100	1736.000	9987.000	1724.000	9987.100	1724.000	10013.000
GR	1736.000	10013.100	1736.000	10017.000	1724.000	10017.100	1724.000	10043.000	1736.000	10043.100
GR	1736.000	10047.000	1724.000	10047.100	1736.000	10067.000	1737.600	10147.000	1737.600	10194.000
GR	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000	1740.000	13455.000
GR	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	4.457	24.000	9933.000	10067.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1748.000	2061.000	1744.000	2351.000	1740.000	3076.000	1740.000	3531.000	1736.000	3691.000
GR	1736.000	3896.000	1736.000	6466.000	1736.500	8066.000	1739.700	9747.000	1735.500	9827.000
GR	1736.000	9933.000	1724.000	9953.000	1724.000	10047.000	1736.000	10067.000	1737.600	10147.000
GR	1737.600	10194.000	1738.000	10251.000	1736.000	10765.000	1735.600	11595.000	1736.000	12380.000
GR	1740.000	13455.000	1744.000	14885.000	1744.000	15515.000	1748.000	15905.000	0.000	0.000

GT	2.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3730.000	0.130	8295.000	0.050	9966.000	0.045	10097.000	0.050
NH	11367.000	0.100	15642.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.470	41.000	9919.000	10050.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1752.000	1595.000	1743.000	2035.000	1744.000	2425.000	1740.000	2805.000	1740.000	2915.000
GR	1740.000	3730.000	1736.000	3745.000	1736.000	3840.000	1740.000	4015.000	1740.000	5405.000
GR	1736.000	6015.000	1736.000	6200.000	1737.200	8295.000	1739.200	9740.000	1738.800	9851.000
GR	1737.300	9875.000	1739.100	9902.000	1736.900	9919.000	1725.600	9942.000	1725.600	9963.000
GR	1727.100	9978.000	1724.800	9989.000	1724.800	10010.000	1728.900	10012.000	1728.100	10025.000
GR	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000	1738.800	10072.000	1737.100	10078.000

GR	1737.700	10230.000	1737.100	10310.000	1738.400	10373.000	1739.400	10392.000	1737.300	10397.000
GR	1738.400	11434.000	1736.000	11760.000	1740.000	12520.000	1744.000	13910.000	1748.000	14620.000

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GR	1752.000	15640.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.300	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	3365.000	0.130	8820.000	0.050	9470.000	0.065	9914.000	0.055
NH	17461.000	0.077	10493.000	0.100	15515.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.570	43.000	9914.000	10061.000	350.000	800.000	562.000	0.000	0.000	0.000
GR	1756.000	1380.000	1752.000	1575.000	1748.000	2055.000	1744.000	2675.000	1740.000	2690.000
GR	1740.000	2770.000	1744.000	2780.000	1744.000	3365.000	1740.000	4025.000	1740.000	5560.000
GR	1736.000	6140.000	1740.000	6990.000	1740.000	8820.000	1740.000	9470.000	1740.500	9751.000
GR	1738.800	9862.000	1737.300	9886.000	1735.100	9914.000	1736.900	9930.000	1735.600	9953.000
GR	1725.600	9974.000	1727.100	9989.000	1725.000	10000.000	1725.800	10021.000	1728.900	10023.000
GR	1728.100	10036.000	1733.800	10040.000	1737.500	10051.000	1738.800	10061.000	1738.800	10083.000
GR	1737.100	10089.000	1737.700	10241.000	1737.100	10321.000	1738.400	10384.000	1739.400	10403.000
GR	1737.300	10408.000	1738.400	10445.000	1740.500	10493.000	1740.000	11925.000	1744.000	13145.000
GR	1748.000	14000.000	1752.000	14575.000	1756.000	15515.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1580.000	0.045	3635.000	0.130	9935.000	0.050	10050.000	0.100
NH	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.680	26.000	9935.000	10065.000	350.000	550.000	540.000	0.000	0.000	0.000
GR	1760.000	1210.000	1756.000	1580.000	1752.000	1775.000	1748.000	2215.000	1744.000	2755.000
GR	1744.000	2865.000	1744.000	3635.000	1740.000	4355.000	1740.000	9320.000	1740.000	9935.000
GR	1725.600	9942.000	1725.600	9963.000	1727.100	9978.000	1725.200	9989.000	1725.200	10010.000
GR	1728.900	10012.000	1728.100	10025.000	1733.800	10029.000	1737.500	10040.000	1738.800	10050.000
GR	1740.000	10065.000	1744.000	13935.000	1748.000	13975.000	1752.000	14925.000	1756.000	15500.000
GR	1760.000	16450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.300	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.130	1659.000	0.045	3714.000	0.130	9913.000	0.050	10087.000	0.100
NH	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.695	21.000	9913.000	10087.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1725.600	10072.200	1733.000	10086.800
GR	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000
GR	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	4.696	35.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1733.000	9930.000	1733.000	9931.500
GR	1725.600	9931.600	1725.600	9976.200	1733.000	9976.300	1733.000	9977.700	1725.600	9977.800
GR	1725.600	10022.400	1733.000	10022.500	1733.000	10023.900	1725.600	10024.000	1725.600	10068.600
GR	1733.000	10068.700	1733.000	10070.100	1725.600	10070.200	1733.000	10086.800	1740.000	10087.000
GR	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000

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****** CHARLESTON BOULEVARD ******
2# DEBRIS LOADING
NORMAL BRIDGE

		CENTERLINE STATION AT 10000								
X1	4.714	35.000	9913.000	10087.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	6.000	9661.000	1740.900	1740.900	9913.000	1740.300	1740.300	9913.200	1740.500	1733.000
BT	9913.200	1740.500	1733.000	10086.800	1740.500	1733.000	10087.000	1740.500	1740.500	0.000

GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.000	9913.200	1725.600	9927.900	1733.000	9928.000	1733.000	9933.500
GR	1725.600	9933.600	1725.600	9974.200	1733.000	9974.200	1733.000	9979.700	1725.600	9979.800
GR	1725.600	10020.400	1733.300	10020.500	1733.000	10025.900	1725.600	10026.000	1725.600	10066.600
GR	1733.000	10066.700	1733.000	10072.100	1725.600	10072.200	1733.000	10086.800	1740.000	10087.000
GR	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000	1760.000	16494.000

CENTERLINE STATION AT 10000

X1	4.715	21.000	9913.000	10087.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1760.000	1289.000	1756.000	1659.000	1752.000	1854.000	1748.000	2294.000	1744.000	2834.000
GR	1744.000	2944.000	1744.000	3714.000	1740.000	4434.000	1740.000	9399.000	1740.900	9661.000
GR	1740.300	9913.000	1733.100	9913.200	1725.600	9927.900	1725.600	10072.200	1733.000	10086.800
GR	1740.500	10087.000	1744.000	13079.000	1748.000	14019.000	1752.000	14969.000	1756.000	15544.000
GR	1760.000	16494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.720	33.000	9954.000	10096.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	1760.000	1420.000	1756.000	1810.000	1752.000	1995.000	1748.000	2455.000	1744.000	2935.000
GR	1744.000	3350.000	1744.000	3880.000	1740.000	4875.000	1740.000	6390.000	1744.000	7295.000
GR	1744.000	8875.000	1742.300	9833.000	1741.900	9954.000	1729.600	9976.000	1729.200	9588.000
GR	1728.300	9995.000	1728.300	10004.000	1728.900	10012.000	1729.600	10028.000	1729.900	10055.000
GR	1732.600	10062.000	1733.000	10079.000	1734.700	10082.000	1743.500	10096.000	1743.900	10137.000
GR	1744.000	10240.000	1744.000	11760.000	1742.900	12510.000	1744.000	13400.000	1748.000	14690.000
GR	1752.000	15375.000	1756.000	15925.000	1760.000	16450.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.130	1810.000	0.045	3880.000	0.130	8875.000	0.040	9954.000	0.035
NH	10096.000	0.100	14690.000	0.045	15375.000	0.130	16450.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.750	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
NH	6.000	0.130	3885.000	0.045	3280.000	0.100	7641.000	0.045	9857.000	0.035
NH	10059.000	0.130	13550.000	0.040	16455.000	0.130	17025.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	4.940	32.000	9897.000	10059.000	750.000	965.000	965.000	0.000	0.000	0.000
GR	1760.000	1720.000	1756.300	1875.000	1756.000	2530.000	1752.000	2690.000	1748.000	3095.000
GR	1744.000	3196.000	1744.000	3280.000	1744.000	7641.000	1746.600	9781.000	1746.300	9889.000
GR	1745.600	9897.000	1745.600	9912.000	1730.500	9944.000	1730.600	9963.000	1730.600	9982.000
GR	1730.100	10000.000	1731.900	10014.000	1734.300	10035.000	1747.900	10059.000	1748.700	10097.000
GR	1748.700	10142.000	1748.000	10160.000	1744.000	10195.000	1744.000	11245.000	1748.000	11520.000
GR	1744.000	13550.000	1748.000	14300.000	1752.000	15140.000	1752.000	15755.000	1756.000	15865.000
GR	1756.000	16455.000	1760.000	17025.000	0.000	0.000	0.000	0.000	0.000	0.000

NH	6.000	0.130	5425.000	0.045	9330.000	0.065	9905.000	0.035	10040.000	0.130
NH	17355.000	0.040	18900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.180	27.000	9905.000	10040.000	1100.000	1277.000	1277.000	0.000	0.000	0.000
GR	1768.000	2100.000	1764.000	2520.000	1760.000	2820.000	1756.000	3255.000	1752.000	3575.000
GR	1752.000	4030.000	1748.000	4155.000	1748.000	5425.000	1748.000	9330.000	1753.500	9803.000
GR	1750.800	9826.000	1750.900	9875.000	1750.500	9905.000	1732.100	9937.000	1732.300	9978.000
GR	1733.700	9988.000	1732.300	9997.000	1732.300	10002.000	1735.900	10017.000	1737.300	10029.000
GR	1750.800	10040.000	1753.700	10071.000	1752.000	10200.000	1752.000	14875.000	1756.000	15780.000
GR	1760.000	17355.000	1770.000	18900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	2545.000	0.130	3465.000	0.040	3675.000	0.130	5910.000	0.045
NH	9160.000	0.045	9915.000	0.035	10085.000	0.130	17620.000	0.040	18935.000	0.000

CENTERLINE STATION AT 10000

X1	5.205	22.000	9915.000	10085.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	1772.000	1951.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000

GR	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000	1732.900	9948.000	1732.900	10052.000
GR	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000
GR	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.206	36.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000	1732.900	9950.000	1748.600	9950.100
GR	1748.600	9351.500	1732.900	9951.600	1732.900	9982.800	1748.600	9982.900	1748.600	9984.300
GR	1732.900	9984.400	1732.900	10015.600	1748.600	10015.700	1748.600	10017.100	1732.900	10017.200
GR	1732.900	10048.400	1748.600	10048.500	1748.600	10049.900	1732.900	10050.000	1748.600	10085.000
GR	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000
GR	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**** STEWART AVENUE ****
2' DEBRIS LOADING
NORMAL BRIDGE
CENTERLINE STATION AT 10000

X1	5.224	36.000	9915.000	10085.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	4.000	9705.000	1749.500	1749.500	9915.000	1750.200	1748.600	10085.000	1749.900	1748.600
BT	10225.000	1750.700	1750.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1748.600	9915.000	1733.100	9948.000	1748.600	9948.100
GR	1748.600	9953.500	1733.100	9952.600	1733.100	9980.600	1748.600	9980.900	1748.600	9986.300
GR	1733.100	9986.400	1733.100	10013.600	1748.600	10013.700	1748.600	10019.100	1733.100	10019.200
GR	1733.100	10046.400	1748.600	10046.400	1748.600	10051.900	1733.100	10052.000	1748.600	10085.000
GR	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000	1760.000	17630.000
GR	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.225	22.000	9915.000	10085.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1772.000	1950.000	1768.000	2215.000	1764.000	2545.000	1760.000	2950.000	1756.000	3285.000
GR	1752.000	3465.000	1752.000	3570.000	1752.000	3675.000	1748.000	4320.000	1748.000	5910.000
GR	1748.000	9160.000	1749.500	9705.000	1750.200	9915.000	1733.100	9948.000	1733.100	10052.000
GR	1749.900	10085.000	1750.700	10225.000	1752.000	10275.000	1752.000	14055.000	1756.000	15285.000
GR	1760.000	17630.000	1770.000	18935.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	10.000	0.040	2530.000	0.100	3420.000	0.040	3725.000	0.130	6415.000	0.045
NH	9310.000	0.045	9905.000	0.035	10040.000	0.030	10470.000	0.130	17670.000	0.040
NH	18830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.240	30.000	9905.000	10040.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	1772.000	2005.000	1768.000	2380.000	1764.000	2530.000	1760.000	2985.000	1756.000	3280.000
GR	1752.000	3430.000	1752.000	3530.000	1752.000	3725.000	1748.000	5155.000	1748.000	6415.000
GR	1748.000	7065.000	1752.000	9310.000	1754.500	5803.000	1751.800	9826.000	1751.900	9875.000
GR	1751.500	9905.000	1733.100	9937.000	1733.300	9978.000	1734.700	9988.000	1733.300	9997.000
GR	1733.300	10002.000	1736.900	10017.000	1738.300	10029.000	1751.800	10040.000	1754.700	10071.000
GR	1752.000	10470.000	1752.000	13825.000	1756.000	15240.000	1760.000	17670.000	1770.000	18830.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.045	3110.000	0.130	8140.000	0.040	9916.000	0.035	10051.000	0.130
NH	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	5.460	36.000	9916.000	10051.000	1198.000	1198.000	1198.000	0.000	0.000	0.000
GR	1776.000	2110.000	1772.000	2225.000	1768.000	2540.000	1764.000	2980.000	1760.000	3040.000
GR	1760.000	3110.000	1760.000	3235.000	1756.000	3885.000	1756.000	5415.000	1752.000	6005.000
GR	1752.000	6970.000	1756.000	8140.000	1756.000	9205.000	1757.800	9459.000	1756.600	9628.000
GR	1755.600	9684.000	1757.100	9788.000	1756.200	9916.000	1741.700	9949.000	1741.500	9975.000
GR	1741.400	9995.000	1741.400	10005.000	1743.400	10023.000	1748.900	10034.000	1748.900	10046.000
GR	1758.000	10051.000	1759.700	10088.000	1758.800	10131.000	1757.500	10151.000	1758.600	10156.000

GR	1758.900	10191.000	1756.000	11870.000	1756.000	13430.000	1760.000	14710.000	1760.000	16520.000
GR	1770.000	18390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.025	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.045	2785.000	0.120	4110.000	0.045	8635.000	0.080	9540.000	0.040
NH	9930.000	0.025	10071.000	0.130	10430.000	0.040	10990.000	0.120	17865.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.750	31.000	9930.000	10071.000	1532.000	1532.000	1532.000	0.000	0.000	0.000
GR	1772.000	2445.000	1768.000	2785.000	1764.000	4110.000	1760.000	5145.000	1760.000	8635.000
GR	1764.000	9540.000	1764.800	9605.000	1763.800	9717.000	1762.600	9821.000	1762.800	9910.000
GR	1758.600	9930.000	1744.800	9959.000	1744.800	9972.000	1744.800	10028.000	1744.800	10039.000
GR	1745.000	10041.000	1763.800	10071.000	1765.200	10102.000	1765.300	10169.000	1765.400	10247.000
GR	1765.800	10344.000	1763.600	10360.000	1764.800	10376.000	1763.800	10438.000	1764.000	10465.000
GR	1764.000	10815.000	1760.500	10990.000	1760.000	14820.000	1764.000	15135.000	1764.000	16295.000
GR	1770.000	17865.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 100.0								
X1	5.780	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	3790.000	0.040	8475.000	0.100	9725.000	0.040	9911.000	0.025
NH	10091.000	0.040	10915.000	0.130	17605.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.794	22.000	9911.000	10091.000	50.000	150.000	70.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9945.600	1745.700	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.795	36.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9983.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.700	9947.600	1762.500	9947.700	1762.500	9948.900
GR	1745.700	9949.000	1745.700	9982.100	1762.500	9982.200	1762.500	9983.400	1745.700	9983.500
GR	1745.700	10016.600	1762.500	10016.700	1762.500	10017.900	1745.700	10018.000	1745.700	10051.100
GR	1762.500	10051.200	1762.500	10052.400	1745.700	10052.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		**** BONANZA AVENUE ****								
		2* DEBRIS LOADING								
		NORMAL BRIDGE								
		CENTERLINE STATION AT 10000								
X1	5.813	36.000	9911.000	10091.000	98.000	98.000	98.000	0.000	0.000	0.000
BT	7.000	9725.000	1764.000	1764.000	9911.000	1764.400	1764.400	9912.400	1766.000	1762.500
BT	9985.500	1766.000	1762.500	10087.600	1766.000	1762.500	10091.000	1763.500	1763.500	10256.000
BT	1764.200	1764.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000
GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9912.400	1745.900	9545.600	1762.500	9945.700	1762.500	9950.900
GR	1745.900	9951.000	1745.900	9980.100	1762.500	9980.200	1762.500	9985.400	1745.900	9985.500
GR	1745.900	10014.600	1762.500	10014.700	1762.500	10019.900	1745.900	10020.000	1745.900	10049.100
GR	1762.500	10049.200	1762.500	10054.400	1745.900	10054.500	1762.500	10087.600	1763.500	10091.000
GR	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000	1768.000	16295.000
GR	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.814	22.000	9911.000	10091.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	1776.000	1580.000	1772.000	2120.000	1772.000	2420.000	1768.000	2780.000	1768.000	3790.000

GR	1764.000	4155.000	1760.000	5315.000	1760.000	6875.000	1762.200	8475.000	1764.000	9725.000
GR	1764.400	9911.000	1762.500	9512.400	1745.900	9945.600	1745.900	10054.500	1762.500	10087.600
GR	1763.500	10091.000	1764.200	10256.000	1764.000	10305.000	1764.000	10915.000	1764.000	16130.000
GR	1768.000	16295.000	1770.000	17605.000	0.000	0.000	0.000	0.000	0.000	0.000

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NH	7.000	0.130	3750.000	0.045	8360.000	0.100	9605.000	0.050	9913.000	0.032
NH	10069.000	0.040	10430.000	0.130	17560.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.820	30.000	9913.000	10069.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	1776.000	1480.000	1772.000	2280.000	1768.000	2765.000	1768.000	3750.000	1764.000	4200.000
GR	1764.000	4650.000	1760.000	5405.000	1760.000	6855.000	1762.200	8360.000	1764.000	9605.000
GR	1762.500	9753.000	1761.200	9821.000	1763.800	9857.000	1761.400	9883.000	1760.300	9897.000
GR	1760.700	9913.000	1748.400	9941.000	1750.000	9953.000	1745.400	9966.000	1745.900	9973.000
GR	1745.900	10027.000	1760.100	10069.000	1755.300	10083.000	1760.200	10112.000	1761.400	10148.000
GR	1760.300	10182.000	1764.000	10430.000	1764.000	15750.000	1768.000	16260.000	1770.000	17560.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	5985.000	0.040	7995.000	0.100	9841.000	0.050	9913.000	0.032
NH	10069.000	0.050	10015.000	0.130	17710.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	5.960	26.000	9913.000	10069.000	750.000	650.000	730.000	0.000	0.000	0.000
GR	1776.000	1375.000	1772.000	2370.000	1768.000	3700.000	1764.000	5985.000	1764.000	7995.000
GR	1764.000	9600.000	1764.500	9841.000	1764.500	9888.000	1761.800	9897.000	1759.700	9913.000
GR	1751.800	9941.000	1752.000	9953.000	1752.000	9966.000	1749.400	9973.000	1749.400	10027.000
GR	1762.400	10369.000	1761.800	10083.000	1762.400	10112.000	1763.700	10148.000	1762.400	10182.000
GR	1764.100	10289.000	1768.000	10455.000	1768.000	15015.000	1768.000	16445.000	1770.000	16960.000
GR	1775.000	17710.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.100	9698.000	0.040	9939.000	0.032	10054.000	0.040	13800.000	0.100
NH	14580.000	0.040	15590.000	0.130	17505.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.160	48.000	9939.000	10054.000	1056.000	1056.000	1056.000	0.000	0.000	0.000
GR	1780.000	1375.000	1776.000	2245.000	1772.000	3025.000	1768.000	9030.000	1768.100	9698.000
GR	1768.100	9728.000	1764.700	9756.000	1765.100	9763.000	1769.100	9786.000	1766.500	9809.000
GR	1766.900	9845.000	1766.700	9878.000	1761.500	9892.000	1767.300	9911.000	1763.000	9939.000
GR	1755.100	9962.000	1751.800	9989.000	1751.800	10011.000	1760.700	10044.000	1764.900	10054.000
GR	1764.900	10072.000	1765.800	10077.000	1765.700	10090.000	1764.900	10098.000	1765.700	10102.000
GR	1767.600	10111.000	1766.900	10147.000	1766.300	10164.000	1766.600	10174.000	1766.500	10208.000
GR	1766.500	10223.000	1766.500	10267.000	1764.900	10286.000	1764.700	10315.000	1765.300	10352.000
GR	1767.600	10374.000	1768.300	10401.000	1766.500	10440.000	1767.700	10441.000	1768.000	10550.000
GR	1768.000	11200.000	1772.000	11545.000	1772.000	13800.000	1772.000	14580.000	1772.000	15590.000
GR	1772.000	16400.000	1776.000	17255.000	1780.000	17505.000	0.000	0.000	0.000	0.000
NH	6.000	0.090	7425.000	0.130	9676.000	0.040	9949.000	0.045	10057.000	0.040
NH	10339.000	0.100	12245.000	0.040	13590.000	0.130	17275.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.350	28.000	9949.000	10057.000	1100.000	950.000	1004.000	0.000	0.000	0.000
GR	1784.000	1180.000	1780.000	1770.000	1776.000	3005.000	1776.000	7425.000	1776.000	9020.000
GR	1772.400	9676.000	1772.400	9743.000	1772.800	9870.000	1771.800	9949.000	1762.900	9968.000
GR	1766.400	9981.000	1760.200	9992.000	1760.200	10008.000	1760.300	10019.000	1760.300	10027.000
GR	1760.400	10032.000	1766.100	10045.000	1771.800	10057.000	1772.400	10084.000	1771.600	10099.000
GR	1771.600	10125.000	1772.800	10172.000	1774.900	10339.000	1775.500	12245.000	1776.000	13590.000
GR	1776.000	15835.000	1776.000	16795.000	1780.000	17275.000	0.000	0.000	0.000	0.000

1

NH	6.000	0.090	8115.000	0.130	9946.000	0.045	10057.000	0.100	11980.000	0.040
NH	16070.000	0.130	18375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.480	34.000	9946.000	10057.000	300.000	270.000	292.000	0.000	0.000	0.000
GR	1784.000	1215.000	1780.000	2265.000	1776.000	6430.000	1776.000	8115.000	1776.000	9640.000
GR	1775.600	9710.000	1773.900	9772.000	1773.900	9799.000	1773.600	9810.000	1775.100	9862.000

GR	1775.000	9946.000	1767.100	9964.000	1767.100	9983.000	1766.400	9991.000	1766.400	9995.000
GR	1766.400	10009.000	1770.200	10033.000	1773.300	10057.000	1773.000	10073.000	1772.700	10087.000
GR	1774.000	10128.000	1772.600	10143.000	1772.600	10183.000	1772.600	10224.000	1766.600	10239.000
GR	1766.600	10247.000	1774.100	10268.000	1776.200	10297.000	1776.000	10850.000	1776.000	11980.000
GR	1776.000	13473.000	1778.900	16773.000	1780.000	17095.000	1784.000	18375.000	0.000	0.000
NH	7.000	0.050	8865.000	0.100	9932.000	0.045	10035.000	0.045	10610.000	0.100
NH	11340.000	0.045	15790.000	0.130	18305.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	6.570	29.000	9932.000	10035.000	920.000	500.000	856.000	0.000	0.000	0.000
GR	1788.000	35.000	1784.000	1250.000	1780.000	4925.000	1780.000	8865.000	1777.800	9808.000
GR	1777.800	9826.000	1778.800	9894.000	1781.600	9932.000	1770.600	9945.000	1769.300	9972.000
GR	1769.300	9982.000	1768.500	9991.000	1768.500	10009.000	1773.300	10020.000	1773.300	10032.000
GR	1781.600	10035.000	1778.600	10061.000	1777.500	10085.000	1775.600	10129.000	1779.600	10224.000
GR	1776.800	10433.000	1776.000	10475.000	1776.000	10610.000	1780.000	11340.000	1780.000	15790.000
GR	1780.000	17135.000	1784.000	17805.000	1788.000	18025.000	1790.000	18305.000	0.000	0.000
NH	9.000	0.130	4690.000	0.100	13425.000	0.130	14809.000	0.030	14942.000	0.035
NH	15039.000	0.045	16195.000	0.100	16755.000	0.045	21140.000	0.130	22860.000	0.000
		CENTERLINE STATION AT 15000								
X1	6.710	42.000	14942.000	15039.000	650.000	450.000	780.000	0.000	0.000	0.000
GR	1796.000	2680.000	1792.000	3960.000	1792.000	4690.000	1784.000	8200.000	1784.000	12020.000
GR	1784.000	13425.000	1780.000	14365.000	1780.000	14680.000	1777.400	14809.000	1777.600	14835.000
GR	1778.500	14910.000	1779.000	14914.000	1784.800	14942.000	1773.000	14956.000	1769.300	14987.000
GR	1769.300	14997.000	1769.300	15012.000	1771.900	15025.000	1784.800	15039.000	1781.900	15040.000
GR	1781.900	15071.000	1781.000	15110.000	1781.300	15136.000	1781.200	15150.000	1781.200	15167.000
GR	1780.000	15195.000	1782.100	15222.000	1782.100	15298.000	1781.800	15387.000	1779.800	15404.000
GR	1779.800	15461.000	1781.600	15472.000	1781.000	15531.000	1780.000	15640.000	1780.000	15710.000
GR	1782.000	16195.000	1782.000	16755.000	1784.000	21140.000	1784.000	21860.000	1788.000	22235.000
GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TIA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 4.420

SECNO=RIVER MILEAGE (ABOVE ADVANCE WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 10000

4.42	15.60	1739.80	0.00	1739.80	1740.26	0.46	0.00	0.00	1737.00
84000.	40977.	21640.	21383.	19719.	2129.	10057.	0.	0.	1737.60
0.00	2.38	10.16	2.13	0.102	0.045	0.100	0.000	1724.20	3523.00
0.004101	992.	992.	992.	7	0	0	0.00	9863.26	13386.26

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.437

CENTERLINE STATION AT 10000

4.44	16.18	1740.18	0.00	0.00	1740.59	0.40	0.30	0.02	1736.00
84000.	42958.	19368.	21673.	22475.	1926.	11575.	70.	21.	1736.00
0.01	1.91	10.05	1.87	0.093	0.045	0.100	0.000	1724.00	3043.87
0.002822	93.	93.	93.	3	0	0	0.00	10474.49	13518.37

*SECNO 4.438

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

CENTERLINE STATION AT 10000

4.44	16.61	1740.61	0.00	0.00	1740.69	0.08	0.00	0.10	1736.00

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    84000.    51325.    6684.    25991.    25219.    1678.    13048.      71.      21.    1736.00
      0.01      2.04     3.98      1.99     0.098    0.045     0.100     0.000  1724.00    2965.15
 0.002809         1.        1.        1.         2        0         0  -526.50 10708.48   13673.64
0
 *SECNO 4.456

 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1737.50 MAX ELLC= 1739.70

                  **** NELLIS BOULEVARD ****
                       1% DEBRIS LOADING
                         NORMAL BRIDGE
                    CENTERLINE STATION AT 10000
      4.46     16.87  1740.87      0.00      0.00  1740.94      0.07      0.25      0.00  1736.00
    84000.    52095.    5860.    26045.    27027.    1628.    13593.      164.      46.    1736.00
      0.02      1.93     3.60      1.86     0.097    0.045     0.100     0.000  1724.00    2918.27
 0.002283        98.       98.       98.         2        0         0  -526.50 10847.84   13766.11
0
1
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     SECNO      DEPTH     CHSEL     CRIWS     WSELK      EG        HV        HL       CLOSS    BANK ELEV
     G          QLOB      QCH       QROB      ALOB       ACH       ARCB      VOL      TWA    LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL        ANCH      XNR       WTA      ELMIN       SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID      ENDST

 *SECNO 4.457
                    CENTERLINE STATION AT 10000
      4.46     16.79  1740.79      0.00      0.00  1741.02      0.24      0.00      0.08  1736.00
    84000.    45361.    16384.    22255.    26712.    2010.    13748.      165.      46.    1736.00
      0.02      1.70     8.15      1.62     0.096    0.045     0.100     0.000  1724.00    2933.27
 0.001758         1.        1.        1.         2        0         0      0.00 10803.25   13736.52
0
 FLOW DISTRIBUTION FOR SECNO=      4.46          CHSEL=   1740.79

 STA=     2933.     3896.     6466.     8066.     9747.     9933.    10067.    10765.    11595.    12380.    13455.    13737.
   PER Q=     6.6      19.9      11.4      13.0       3.1      19.5       4.6       5.0       8.5       4.4       0.0
    AREA=  1841.9   12303.8    7260.0    4517.7     789.0    2009.5    2585.9    4139.6    3915.1    2996.5     110.8
     VEL=     3.0       1.4       1.3       2.4       3.3       8.2       1.5       1.8       1.8       1.2       0.3

 1490 NH CARD USED
 *SECNO 4.470
                    CENTERLINE STATION AT 10000
      4.47     16.07  1740.87      0.00      0.00  1741.24      0.37      0.15      0.07  1736.90
    84000.    40082.    15622.    28296.    18916.    1575.     9199.      215.      60.    1738.80
      0.02      2.12     9.92      3.08     0.097    0.045     0.165     0.000  1724.80    2722.26
 0.003851        60.       60.       60.         3        0         0      0.00 10413.31   13135.57
0
 CCHV=   0.100 CEHV=   0.300
 1490 NH CARD USED
 *SECNO 4.570

 3265 DIVIDED FLOW

                    CENTERLINE STATION AT 10000
      4.57     18.04  1743.04      0.00      0.00  1743.42      0.38      2.18      0.01  1739.10
    84000.    42307.    18426.    23267.    20475.    1926.     7655.      550.      171.    1738.80
      0.06      2.37     9.57      3.04     0.105    0.055     0.070     0.000  1725.00    2678.58
 0.004375         350.      562.      800.         7        0         0      0.00  9430.90   12854.19
0
 1490 NH CARD USED
 *SECNO 4.660
                    CENTERLINE STATION AT 10000
      4.68     19.51  1744.71      0.00      0.00  1745.07      0.36      1.64      0.00  1740.00
    84000.    52018.    18568.    13414.    28937.    1921.     8127.      872.      266.    1740.00
      0.10      1.80     9.67      1.65     0.128    0.100     0.100     0.000  1725.20    2658.31
 0.003291         350.      540.      550.         3        0         0      0.00 10544.99   13203.30
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SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCH= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.695

CENTERLINE STATION AT 10000

4.70	19.32	1744.92	0.00	0.00	1745.39	0.47	0.26	0.05	1740.30
84000.	44030.	29408.	10593.	29653.	3249.	8087.	964.	290.	1740.50
0.10	1.48	9.05	1.31	0.128	0.050	0.100	0.000	1725.60	2709.86
0.002134	1.	100.	100.	2	0	0	0.00	10585.24	13295.10

*SECNO 4.696

337 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.50

CENTERLINE STATION AT 10000

4.70	19.85	1745.45	0.00	0.00	1745.51	0.06	0.00	0.12	1740.30
84000.	59272.	6737.	17991.	33528.	1978.	10585.	965.	290.	1740.00
0.10	1.77	3.41	1.70	0.126	0.050	0.100	0.000	1725.60	2637.61
0.002582	1.	1.	1.	2	0	0	-1303.50	10783.24	13420.86

*SECNO 4.714

337 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 1740.30 MAX ELLC= 1740.50

**** CHARLESTON BOULEVARD ****
2# DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

4.71	20.09	1745.69	0.00	0.00	1745.74	0.05	0.23	0.00	1740.30
84000.	59356.	6089.	18556.	35264.	1916.	11386.	1071.	314.	1740.00
0.12	1.68	3.13	1.63	0.125	0.050	0.100	0.000	1725.60	2605.46
0.002187	98.	98.	98.	2	0	0	-1303.50	10871.37	13476.83

*SECNO 4.715

CENTERLINE STATION AT 10000

4.72	19.98	1745.58	0.00	0.00	1745.86	0.29	0.00	0.12	1740.30
84000.	45977.	29445.	12578.	34418.	3363.	10246.	1073.	315.	1740.50
0.12	1.34	7.57	1.23	0.125	0.050	0.100	0.000	1725.60	2621.12
0.001424	1.	1.	1.	2	0	0	0.00	10828.46	13449.57

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 4.720

1645 INT SEC ADDED BY RAISING SEC 4.72, -1.350FT AND MULTIPLYING BY 1.220

1.01	18.78	1745.73	0.00	0.00	1745.92	0.19	0.03	0.03	1740.55
84000.	51837.	18629.	13533.	40400.	2642.	15417.	1103.	322.	1742.15
0.12	1.28	7.05	0.88	0.093	0.035	0.100	0.000	1726.55	2817.37

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 0.000762      25.      25.      25.        3        0        0     0.00 14434.29 17251.66
C

 1645 INT SEC ADDED BY RAISING SEC      1.01,   1.350FT AND MULTIPLYING BY   0.819

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
      4.72    17.29  1745.59  1745.59     0.00  1746.66     1.07     0.04     0.44  1741.90
    84000.    47557.   27671.    8772.   22236.    1954.    6551.    1129.     329.   1743.50
      0.12      2.14    14.16     1.33     0.10    0.035    0.100    0.000  1728.30   2743.87
 0.003593      25.      25.      25.       25       14        0     0.00 11169.80 13913.67
C
 CCHW=   0.100 CEHV=   0.300
 1490 NH CARD USED
 *SECNO 4.750

 1645 INT SEC ADDED BY RAISING SEC      4.75,   0.000FT AND MULTIPLYING BY   1.000

 3301 HV CHANGED MORE THAN HVINS

      1.01    18.14  1746.44  1745.54     0.00  1746.91     0.47     0.19     0.06  1741.90
    84000.    50511.   21704.   11785.   28349.    2073.    9919.    1190.     345.   1743.50
      0.13      1.78    10.47     1.19     0.096    0.035    0.100    0.000  1728.30   2642.84
 0.001813      75.      75.      75.       18        6        0     0.00 11542.35 14185.19
C
C
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   G         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TEA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WIN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWIC       ENDST


 1645 INT SEC ADDED BY RAISING SEC      1.01,   0.000FT AND MULTIPLYING BY   1.000

                CENTERLINE STATION AT 10000
      4.75    18.35  1746.65     0.00     0.00  1747.04     0.39     0.12     0.01  1741.90
    84000.    51074.   20477.   12449.   29995.    2105.   10849.    1262.     369.   1743.50
      0.15      1.70     9.73     1.15     0.095    0.035    0.100    0.000  1728.30   2615.80
 0.001534      75.      75.      75.        2        0        0     0.00 11642.07 14257.86
C
 1490 NH CARD USED
 *SECNO 4.940

 3265 DIVIDED FLOW

                CENTERLINE STATION AT 10000
      4.94    17.98  1748.38     0.00     0.00  1748.51     0.43     1.46     0.01  1745.60
    84000.    49507.   20712.   13781.   24436.    2062.   10681.    2015.     586.   1747.90
      0.19      2.03    13.04     1.29     0.078    0.035    0.103    0.000  1730.10   3087.68
 0.001994      75.      965.     965.        2        0        0     0.00 11136.54 14315.18
C
 1490 NH CARD USED
 *SECNO 5.180

 1645 INT SEC ADDED BY RAISING SEC      5.18,  -1.500FT AND MULTIPLYING BY   1.000

 3265 DIVIDED FLOW
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3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	18.79	1749.39	1749.39	0.00	1750.65	1.26	0.75	0.25	1749.00
84000.	53461.	30539.	0.	16495.	2137.	0.	2199.	643.	1749.30
0.20	3.24	14.29	0.01	0.054	0.035	0.130	0.000	1730.60	4194.09
0.003436	275.	319.	319.	20	5	0	0.00	6104.22	10564.55

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICFLID	ENDST

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.500FT AND MULTIPLYING BY 0.979

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.02	19.73	1750.83	0.00	0.00	1751.41	0.59	0.69	0.07	1749.50
84000.	60269.	23729.	2.	21662.	2225.	6.	2335.	682.	1749.80
0.22	2.78	10.67	0.31	0.054	0.035	0.130	0.000	1731.10	4120.47
0.001771	275.	319.	319.	5	0	0	0.00	6114.92	10400.45

0

1645 INT SEC ADDED BY RAISING SEC 1.02, 0.500FT AND MULTIPLYING BY 0.979

3265 DIVIDED FLOW

1.03	19.73	1751.33	0.00	0.00	1751.94	0.61	0.52	0.01	1750.00
84000.	60300.	23698.	2.	21209.	2178.	6.	2487.	720.	1750.30
0.24	2.84	10.88	0.31	0.054	0.035	0.130	0.000	1731.60	4077.95
0.001851	275.	319.	319.	0	0	0	0.00	5986.14	10225.71

0

1645 INT SEC ADDED BY RAISING SEC 1.03, 0.500FT AND MULTIPLYING BY 0.978

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

5.18	19.76	1751.86	0.00	0.00	1752.48	0.62	0.54	0.00	1750.50
84000.	60537.	23461.	2.	20952.	2136.	6.	2635.	758.	1750.80
0.25	2.89	10.98	0.32	0.054	0.035	0.130	0.000	1732.10	4034.30
0.001888	275.	319.	319.	2	0	0	0.00	5862.28	10051.36

0
CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*SECNO 5.205

CENTERLINE STATION AT 18000

5.20	19.38	1752.28	0.00	0.00	1752.75	0.47	0.23	0.04	1750.20
84000.	58038.	25526.	385.	24692.	2725.	1401.	2725.	786.	1749.90
0.26	2.35	9.35	0.28	0.057	0.035	0.130	0.000	1732.90	3452.32
0.001278	150.	150.	150.	3	0	0	0.00	10689.31	14141.63

*SECNO 5.206

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.5[illegible] MAX ELLC= 1750.70

CENTERLINE STATION AT 10000

5.21	19.84	1752.74	0.00	0.00	1752.86	0.12	0.00	0.11	1748.60
84000.	72850.	9844.	1306.	27673.	2483.	3302.	2726.	786.	1748.60
0.26	2.63	3.96	[illegible]	[illegible]	0.035	0.130	0.000	1732.90	3431.60
0.001401	1.	1.	1.	2	0	0	-5[illegible].50	10851.66	14283.26

*SECNO 5.224

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1749.5[illegible] MAX ELLC= 1750.70

**** STEWART AVENUE ****
2' DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.22	19.78	1752.88	0.00	0.00	1752.99	0.11	0.13	0.00	1748.60
84000.	73947.	8437.	1616.	28576.	2263.	3985.	2802.	811.	1748.60
0.27	2.59	3.73	0.42	0.057	0.035	0.130	0.000	1733.10	3425.33
0.001304	98.	98.	98.	2	0	0	-5[illegible].50	10900.72	14326.05

*SECNO 5.225

CENTERLINE STATION AT 10000

5.22	19.68	1752.78	0.00	0.00	1753.10	0.33	0.00	0.11	1750.20
84000.	60251.	22613.	1136.	27889.	2786.	3442.	2803.	811.	1749.90
0.27	2.16	8.12	0.33	0.057	0.035	0.130	0.000	1733.10	3430.10
0.000935	1.	1.	1.	2	0	0	0.00	10863.41	14293.51

0

1490 NH CARD USED

1

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*SECNO 5.240

1645 INT SEC ADDED BY RAISING SEC 5.24, 0.000FT AND MULTIPLYING BY 1.156

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.01	19.31	1752.41	1752.40	0.00	1753.56	1.15	0.05	0.41	1751.50
84000.	51071.	32361.	567.	20206.	2398.	1649.	2823.	819.	1751.80
0.27	2.53	13.49	0.34	0.070	0.035	0.127	0.000	1733.10	3634.00
0.002889	3[illegible].	33.	33.	6	6	0	0.00	11284.36	15833.75

0

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.000FT AND MULTIPLYING BY 0.865

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

5.24	19.66	1752.76	1752.76	0.00	1753.84	1.08	0.09	0.02	1751.50
84000.	53529.	29059.	1413.	19587.	2122.	2688.	2640.	826.	1751.80
0.27	2.73	13.70	0.53	0.069	0.036	0.125	0.000	1733.10	3401.62
0.002962	35.	30.	30.	20	9	0	0.00	10024.89	14092.73

CCHV= 0.10 CEHV= 0.300
1498 NH CARD USED
*SECNO 5.460

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

5.46	17.05	1753.45	1753.45	0.00	1759.50	1.05	4.05	0.00	1756.20
84000.	50656.	26190.	7154.	22082.	1826.	6528.	3594.	1106.	1758.00
0.33	2.29	14.34	1.10	0.103	0.038	0.139	0.000	1741.40	3487.50
0.003890	1198.	1198.	1198.	20	9	0	0.00	10354.44	14213.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

1498 NH CARD USED
*SECNO 5.750

1645 INT SEC ADDED BY RAISING SEC 5.75, -2.550FT AND MULTIPLYING BY 0.964

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	18.62	1760.87	1760.87	0.00	1762.10	1.23	0.95	0.06	1756.05
84000.	40319.	25965.	13715.	14373.	2060.	12346.	3854.	1193.	1761.25
0.35	2.31	14.55	1.11	0.046	0.025	0.118	0.000	1742.25	4194.41
0.001725	383.	383.	383.	20	8	0	0.00	9361.17	14630.21

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.850FT AND MULTIPLYING BY 1.013

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.02	18.57	1761.67	1761.67	0.00	1762.93	1.27	0.67	0.01	1756.90
84000.	39989.	30422.	13588.	14281.	2078.	12283.	4107.	1276.	1762.10
0.36	2.80	14.64	1.11	0.046	0.025	0.118	0.000	1743.10	4229.66
0.001750	383.	383.	383.	20	6	0	0.00	9442.68	14779.18

1645 INT SEC ADDED BY RAISING SEC 1.02, 0.850FT AND MULTIPLYING BY 1.012

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.03	18.53	1762.48	1762.48	0.00	1763.76	1.27	0.67	0.00	1757.75
84000.	39782.	30709.	13509.	14293.	2100.	12303.	4359.	1359.	1762.95
0.38	2.78	14.63	1.10	0.046	0.025	0.118	0.000	1743.95	4259.88
0.001746	383.	383.	383.	20	6	0	0.00	9837.86	14929.68

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCHAR	ICPWIC	ENDST

1645 INT SEC ADDED BY RAISING SEC 1.03, 0.850FT AND MULTIPLYING BY 1.012

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.75	18.51	1763.31	1763.31	0.00	1764.58	1.28	0.67	0.00	1758.60
84000.	39613.	30943.	13444.	14335.	2122.	12347.	4612.	1443.	1763.80
0.39	2.76	14.58	1.09	0.046	0.025	0.118	0.000	1744.80	4288.62
0.001738	383.	383.	383.	20	6	0	0.00	9837.09	15080.64

*SECNO 5.780

1645 INT SEC ADDED BY RAISING SEC 5.78, 0.000FT AND MULTIPLYING BY 1.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.01	19.32	1764.12	1763.28	0.00	1764.74	0.62	0.09	0.07	1758.60
84000.	43918.	24998.	15084.	18830.	2237.	16055.	4668.	1462.	1763.80
0.40	2.33	11.18	0.94	0.046	0.025	0.117	0.000	1744.80	4067.99
0.000959	75.	75.	75.	13	5	0	0.00	11805.25	16328.19

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.000FT AND MULTIPLYING BY 1.000

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

5.78	19.46	1764.26	0.00	0.00	1764.82	0.56	0.07	0.01	1758.60
84000.	44577.	24147.	15347.	19627.	2256.	16878.	4734.	1482.	1763.80
0.40	2.27	10.70	0.91	0.046	0.025	0.117	0.000	1744.80	4022.21
0.000869	75.	75.	75.	2	0	0	0.00	11926.83	16364.34

1

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	I&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWIC	ENDST

CCH&= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 5.794

1645 INT SEC ADDED BY RAISING SEC 5.79, -0.450FT AND MULTIPLYING BY 0.894

3301 HV CHANGED MORE THAN HVINS

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.01	18.76	1764.01	1764.01	0.00	1765.34	1.33	0.04	0.39	1763.95
84000.	48911.	34189.	900.	15129.	2446.	2483.	4762.	1495.	1763.05
0.40	3.23	13.98	0.36	0.041	0.025	0.098	0.000	1745.25	3844.96
0.001593	25.	35.	75.	4	10	0	0.00	10760.16	14605.13

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.450FT AND MULTIPLYING BY 1.119

3265 DIVIDED FLOW

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

5.79	18.59	1764.29	1764.29	0.00	1765.53	1.24	0.04	0.03	1764.40
84000.	47706.	35844.	450.	15943.	2705.	1751.	4777.	1506.	1763.50
0.40	2.99	13.25	0.26	0.041	0.025	0.096	0.000	1745.70	4128.87
0.001438	25.	35.	75.	9	6	0	0.00	11960.02	16141.81

*SECNO 5.795

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

CENTERLINE STATION AT 10000

5.80	20.01	1765.71	0.00	0.00	1765.86	0.14	0.00	0.33	1764.40
84000.	67563.	11018.	5419.	24291.	2270.	10435.	4777.	1509.	1763.50
0.40	2.78	4.85	0.52	0.042	0.040	0.120	0.000	1745.70	3998.54
0.000853	1.	1.	1.	4	0	0	-571.51	12202.19	16200.73

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	I&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWIC	ENDST

*SECNO 5.813

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1763.50 MAX ELLC= 1764.40

**** BONANZA AVENUE ****
2# DEBRIS LOADING
NORMAL BRIDGE

CENTERLINE STATION AT 10000

5.81	19.91	1765.31	0.00	0.00	1765.54	0.13	0.08	0.00	1764.40	
64000.	68865.	9294.	5640.	24857.	2011.	11020.	4862.	1536.	1763.50	
0.41	2.77	4.62	0.53	0.042	0.040	0.120	0.000	1745.90	3989.81	
0.000827	98.	98.	98.	2	0	0	-588.32	12214.87	16204.67	

*SECNO 5.814

CENTERLINE STATION AT 10000

5.81	19.77	1765.67	0.00	0.00	1766.09	0.42	0.00	0.14	1764.40	
64000.	53961.	25836.	4203.	24012.	2925.	10146.	4863.	1536.	1763.50	
0.41	2.25	8.83	0.41	0.042	0.040	0.120	0.000	1745.90	4002.95	
0.000563	1.	1.	1.	2	0	0	0.00	12155.93	16198.78	

1490 NH CARD USED
*SECNO 5.820

CENTERLINE STATION AT 10000

5.82	19.92	1765.82	0.00	0.00	1766.14	0.32	0.02	0.03	1760.70	
64000.	54292.	20445.	9263.	22479.	2467.	11442.	4888.	1545.	1760.10	
0.42	2.42	8.29	0.81	0.047	0.032	0.087	0.000	1746.90	3994.73	
0.000843	30.	30.	30.	2	0	0	0.00	11987.90	15982.63	

CCHV= 0.100 CHHV= 0.300
1490 NH CARD USED
*SECNO 5.960

1645 INT SEC ADDED BY RAISING SEC 5.96, -1.750FT AND MULTIPLYING BY 0.977

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO / TIME / SLOPE	DEPTH / GLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / ARCB / XNR / ICONT	HL / VOL / WTN / CORAR	CLCSS / TWA / ELMIN / ICPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
1.01	18.17	1765.82	1765.82	0.00	1767.06	1.25	0.50	0.28	1757.95
64000.	47451.	31818.	4730.	17221.	2258.	1240.	5126.	1620.	1760.65
0.43	2.76	14.09	3.81	0.059	0.032	0.050	0.000	1747.65	3900.15
0.002612	375.	365.	325.	20	13	0	0.00	6341.73	10241.87

1645 INT SEC ADDED BY RAISING SEC 1.01, 1.750FT AND MULTIPLYING BY 1.023

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

5.96	18.06	1767.46	1767.46	0.00	1768.76	1.30	0.98	0.02	1759.70	
64000.	46665.	32640.	4695.	16979.	2293.	1229.	5381.	1674.	1762.40	
0.44	2.75	14.23	3.82	0.059	0.032	0.050	0.000	1749.40	4009.13	
0.002686	375.	365.	325.	20	6	0	0.00	6422.84	10431.97	

1490 NH CARD USED
*SECNO 6.160
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

6.16	20.30	1772.10	1772.10	0.00	1773.20	1.10	2.65	0.02	1763.00	
64000.	27673.	26371.	29949.	16681.	1867.	6589.	5855.	1915.	1764.90	

0.49	1.66	14.13	4.55	0.083	0.032	0.040	0.000	1751.80	3005.22
0.002345	1056.	1056.	1056.	20	13	0	0.00	13416.46	16421.68

1495 NH CARD USED
*SECNO 6.350
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

6.35	17.28	1777.48	1777.48	0.00	1778.40	0.92	3.53	0.02	1771.80
84000.	28883.	22423.	32689.	12783.	1564.	12802.	6478.	2243.	1771.80
0.54	2.26	14.34	2.55	0.080	0.045	0.070	0.000	1766.21	2547.15
0.005654	11.	1004.	950.	20	5	0	0.00	14425.80	16972.95

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1495 NH CARD USED
*SECNO 6.400

1645 INT SEC ADDED BY RAISING SEC 6.41, -3.100FT AND MULTIPLYING BY 0.975

3301 HV CHANGED MORE THAN HVINS

1.01	15.29	1778.59	0.00	0.00	1778.62	0.04	3.13	0.09	1771.90
84000.	28386.	4764.	50861.	35182.	1388.	33118.	6636.	2292.	1770.20
0.57	0.31	3.42	1.54	0.101	0.045	0.056	0.000	1763.30	1807.18
0.000368	150.	146.	135.	3	0	0	0.00	15425.32	17232.50

1645 INT SEC ADDED BY RAISING SEC 1.01, 3.100FT AND MULTIPLYING BY 1.025

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION AT 10000

6.40	11.89	1778.29	0.00	0.00	1778.95	0.66	3.14	0.19	1775.00
84000.	24240.	14328.	45432.	11144.	1046.	10962.	6788.	2336.	1773.30
0.57	2.18	13.69	4.14	0.105	0.045	0.061	0.000	1766.40	4041.30
0.008859	150.	146.	135.	5	0	0	0.00	11485.43	15526.73

1490 NH CARD USED
*SECNO 6.570

CENTERLINE STATION AT 10000

6.57	13.63	1782.13	0.00	0.00	1782.36	0.23	3.37	0.04	1781.60
84000.	21650.	10038.	52311.	13950.	1144.	18193.	7242.	2545.	1781.60
0.63	1.55	8.78	2.88	0.093	0.045	0.057	0.000	1768.50	2566.04
0.003261	920.	856.	500.	5	0	0	0.00	14526.11	17492.14

1495 NH CARD USED
*SECNO 6.710

1645 INT SEC ADDED BY RAISING SEC 6.71, -0.600FT AND MULTIPLYING BY 1.116

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	STA	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TCPLIC	ENDST

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.71	15.19	1783.89	1783.89	0.00	1784.58	-.69	-.51	-.14	1784.20
84000.	21444.	17171.	45384.	9453.	1270.	13710.	7332.	2596.	1784.20
.64	2.27	13.52	3.31	0.085	0.035	0.049	0.000	1766.70	8598.78
0.004185	163.	195.	113.	20	8	0	0.00	15528.25	24129.60

1645 INT SEC ADDED BY RAISING SEC 1.01, 0.200FT AND MULTIPLYING BY .965

1.02	15.31	1784.71	0.00	0.00	1785.04	0.32	0.42	0.04	1784.40
84000.	21838.	13015.	49146.	13862.	1291.	17842.	7422.	2645.	1784.40
.65	1.58	10.38	2.75	0.089	0.035	0.049	0.000	1768.90	8101.25
0.002213	163.	195.	113.	4	0	0	0.00	15349.73	23450.98

1645 INT SEC ADDED BY RAISING SEC 1.02, 0.200FT AND MULTIPLYING BY .964

1.13	15.43	1785.13	0.00	0.00	1785.34	0.30	0.30	0.00	1784.60
84000.	21972.	12394.	49634.	14238.	1256.	18036.	7627.	2693.	1784.60
0.66	1.54	9.87	2.75	0.090	0.035	0.049	0.000	1769.10	7854.47
0.002108	163.	195.	113.	2	0	0	0.00	14864.30	22718.77

1645 INT SEC ADDED BY RAISING SEC 1.03, 0.200FT AND MULTIPLYING BY .963

CENTERLINE STATION AT 15000

6.71	16.83	1785.33	0.00	0.00	1785.62	0.29	-.29	0.00	1784.80
84000.	22099.	11869.	50032.	14467.	1215.	18087.	7633.	2740.	1784.80
.67	1.53	9.73	2.77	0.090	0.035	0.049	0.000	1769.30	7616.86
0.002044	163.	195.	113.	2	0	0	0.00	14367.75	21984.60

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 500-Y

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.428	0.00	0.00	0.00	1724.20	84000.00	1739.80	0.00	1740.26	41.01	10.16	31905.35	13117.56
4.437	90.00	0.00	0.00	1724.00	84000.00	1740.18	0.00	1740.59	28.22	10.05	35977.66	15813.37
4.438	1.00	1737.50	1739.70	1724.00	84000.00	1740.61	0.00	1740.69	28.09	3.98	39943.92	15850.12

	4.456	98.	1737.6	1739.7	1724.3	84000.	174 .87	0.00	1740.94	22.83	3.60	42647.85	17580.04
	4.457	1.00	0.00	0.00	1724.30	84000.00	1740.79	0.00	1741.02	17.58	8.15	42469.79	20034.24
	4.470	60.00	0.00	0.00	1724.80	84000.00	1740.87	0.00	1741.24	38.51	9.92	29689.66	13535.26
	4.570	562.00	0.00	0.00	1725.00	84000.00	1743.04	0.00	1743.42	43.75	9.57	30055.47	12700.27
	4.680	540.00	0.00	0.00	1725.20	84000.00	1744.71	0.00	1745.07	32.91	5.67	38984.92	14642.89
	4.695	100.00	0.00	0.00	1725.60	84000.00	1744.92	0.00	1745.39	21.34	9.05	40988.86	18183.34
	4.696	1.00	1740.30	1740.90	1725.60	84000.00	1745.45	0.00	1745.51	25.82	3.41	46091.20	16529.56
	4.714	98.00	1740.30	1740.90	1725.60	84000.00	1745.69	0.00	1745.74	21.87	3.18	48565.89	17961.45
	4.715	1.00	0.00	0.00	1725.60	84000.00	1745.58	0.00	1745.86	14.24	7.57	48127.02	22262.74
*	4.720	50.00	0.00	0.00	1728.30	84000.00	1745.59	1745.59	1746.66	35.93	14.16	30780.55	14013.86
*	4.750	150.00	0.00	0.00	1728.30	84000.00	1746.65	0.00	1747.04	15.34	9.73	42953.58	21448.52
	4.940	965.00	0.00	0.00	1730.10	84000.00	1748.08	0.00	1748.51	19.94	10.04	37178.46	18809.36
*	5.180	1277.00	0.00	0.00	1732.10	84000.00	1751.86	0.00	1752.48	18.88	10.98	23093.81	19331.27
	5.285	150.00	0.00	0.00	1732.90	84000.00	1752.28	0.00	1752.75	12.78	9.35	28821.89	23498.30

	SECNO	XLCH	ELTRO	ELLO	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
	5.296	1.00	1749.50	1750.70	1732.90	84000.00	1752.74	0.00	1752.86	14.01	3.96	33458.20	22437.99
	5.224	98.00	1749.50	1750.70	1733.10	84000.00	1752.88	0.00	1752.99	13.04	3.73	34728.16	23262.90
	5.225	1.00	0.00	0.00	1733.10	84000.00	1752.78	0.00	1753.10	9.35	8.12	34116.91	27467.36
*	5.245	6 .00	0.00	0.00	1733.10	84000.00	1752.76	1752.76	1753.84	29.62	13.70	24396.78	15433.99
*	5.460	1198.00	0.00	0.00	1741.40	84000.00	1758.45	1758.45	1759.50	38.90	14.34	30436.05	13467.96
*	5.750	1532.00	0.00	0.00	1744.80	84000.00	1763.31	1763.31	1764.58	17.38	14.58	28804.39	27151.36
*	5.780	150.00	0.00	0.00	1744.80	84000.00	1764.26	0.00	1764.82	8.69	10.70	38761.06	28490.61
*	5.794	70.00	0.00	0.00	1745.70	84000.00	1764.29	1764.29	1765.53	14.30	13.25	20398.93	22213.77
	5.795	1.00	1763.50	1764.40	1745.70	84000.00	1765.71	0.00	1765.86	8.53	4.85	36995.73	28762.05
	5.813	98.00	1763.50	1764.40	1745.90	84000.00	1765.81	0.00	1765.94	8.27	4.62	37887.93	29202.45
	5.814	1.00	0.00	0.00	1745.90	84000.00	1765.67	0.00	1766.09	5.63	8.83	37083.48	35399.44
	5.828	30.00	0.00	0.00	1745.90	84000.00	1765.82	0.00	1766.14	8.43	8.29	36387.67	28928.74
*	5.960	730.00	0.00	0.00	1749.40	84000.00	1767.46	1767.46	1768.76	26.86	14.23	20502.29	16206.91
*	6.160	1056.00	0.00	0.00	1751.80	84000.00	1772.10	1772.10	1773.20	23.45	14.13	25137.02	17345.49
*	6.350	1 04.00	0.00	0.00	1760.20	84000.00	1777.48	1777.48	1778.40	56.54	14.34	27148.87	11171.39
*	6.400	292.00	0.00	0.00	1766.40	84000.00	1778.29	0.00	1778.95	88.59	13.69	23152.83	8924.67
	6.570	856.00	0.00	0.00	1768.50	84000.00	1782.13	0.00	1782.36	32.61	8.78	33286.60	14708.71

*	6.710	780.00	0.00	0.00	1765.30	84000.00	1765.33	0.00	1785.62	20.44	9.73	33773.14	18578.94

LAS VEGAS WASH - 500-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	4.420	84000.00	1739.80	0.00	0.00	0.00	9863.26	0.00
	4.437	84000.00	1740.18	0.00	0.38	0.00	10474.49	90.00
	4.438	84000.00	1740.61	0.00	0.43	0.00	10746.48	1.00
	4.456	84000.00	1740.87	0.00	0.26	0.00	10847.84	98.00
	4.457	84000.00	1740.79	0.00	-0.08	0.00	10803.25	1.00
	4.476	84000.00	1740.87	0.00	0.08	0.00	10413.31	60.00
	4.578	84000.00	1743.04	0.00	2.17	0.00	9430.50	562.00
	4.680	84000.00	1744.71	0.00	1.67	0.00	10544.99	540.00
	4.695	84000.00	1744.92	0.00	0.21	0.00	10585.24	100.00
	4.696	84000.00	1745.45	0.00	0.53	0.00	10783.24	1.00
	4.714	84000.00	1745.69	0.00	0.24	0.00	10871.37	98.00
	4.715	84000.00	1745.58	0.00	-0.12	0.00	10828.46	1.00
*	4.720	84000.00	1745.59	0.00	-0.14	0.00	11165.80	50.00
*	4.750	84000.00	1746.65	0.00	0.22	0.00	11642.17	150.00
	4.940	84000.00	1748.08	0.00	1.43	0.00	11136.54	965.00
*	5.180	84000.00	1751.86	0.00	0.53	0.00	5862.28	1277.00
	5.205	84000.00	1752.28	0.00	0.42	0.00	10689.31	150.00
	5.206	84000.00	1752.74	0.00	0.46	0.00	10851.66	1.00
	5.224	84000.00	1752.88	0.00	0.14	0.00	10900.72	98.00
	5.225	84000.00	1752.78	0.00	-0.11	0.00	10863.41	1.00
*	5.240	84000.00	1752.76	0.00	0.35	0.00	10024.59	60.00
*	5.460	84000.00	1758.45	0.00	5.69	0.00	10354.44	1198.00
*	5.750	84000.00	1763.31	0.00	0.82	0.00	9637.05	1532.00
*	5.780	84000.00	1764.26	0.00	0.14	0.00	11926.83	150.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH

*	5.794	84000.00	1764.29	0.00	0.28	0.00	11960.02	70.00
	5.795	84000.00	1765.71	0.00	1.43	0.00	12202.13	1.00
	5.813	84000.00	1765.81	0.00	0.10	0.00	12214.87	98.00
	5.814	84000.00	1765.67	0.00	-0.14	0.00	12195.93	1.00
	5.820	84000.00	1765.82	0.00	0.16	0.00	11987.90	30.00
*	5.960	84000.00	1767.46	0.00	1.64	0.00	6422.84	730.00
*	6.160	84000.00	1772.10	0.00	4.64	0.00	13416.46	1056.00
*	6.350	84000.00	1777.48	0.00	5.38	0.00	14425.80	1004.00
*	6.400	84000.00	1776.29	0.00	-0.30	0.00	11485.43	292.00
	6.570	84000.00	1782.13	0.00	3.84	0.00	14526.11	856.00
*	6.710	84000.00	1785.33	0.00	0.30	0.00	14367.75	780.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 4.720 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 4.750 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.180 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.240 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 5.460 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 5.460 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 5.750 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.780 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.794 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 5.960 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 6.160 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.160 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.160 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 6.350 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.350 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.350 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 6.400 PROFILE= 1 INTERPOLATED XSECTIONS USED
CAUTION SECNO= 6.710 PROFILE= 1 INTERPOLATED XSECTIONS USED

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 ********************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  31,32,33,34,35
   MODIFICATION -  50,51,52,53,54,55
 ********************************************************



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1**************************************************
 *  WATER SURFACE PROFILES                        *
 *  VERSION OF NOVEMBER 1976                      *
 *  UPDATED AUGUST 1983                           *
 *                                                *
 *  RUN DATE  14-FEB-88 TIME   13:59:31           *
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 ****************************************
 *  U.S. ARMY CORPS OF ENGINEERS        *
 *  THE HYDROLOGIC ENGINEERING CENTER   *
 *  609 SECOND STREET, SUITE D          *
 *  DAVIS, CALIFORNIA 95616             *
 *  (916) 440-2105 (FTS) 448-2105       *
 ****************************************
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x     x  xxxxxxx   xxxxx                xxxxx
x     x  x        x     x            x     x
x     x  x        x                  x     x
xxxxxxx  xxxx     x          xxxxx    xxxxx
x     x  x        x                  x
x     x  x        x     x            x
x     x  xxxxxxx   xxxxx              xxxxxxx

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  14-FEB-88     13:59:31                                                    PAGE     1


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   31,32,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 **************************************************

C
T1        LAS VEGAS WASH OVERFLOW STUDY
T2        NONDAMAGING FLOW ANALYSIS
T3        25-YEAR WITH LINED CHANNEL IN EXTREME RIGHT SIDE OF FLOOD PLAIN.

J1   ICHECK      INQ        NINV       IDIR       STRT       METRIC     HVINS      G          WSEL       FQ

        0.         2.         0.         0.  -1.000000       0.00       0.0        0.   1955.000      0.000

J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

       1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000


QT       3.000   2100.000   2200.000   2300.000      0.000      0.000      0.000      0.000      0.000      0.000
NC       0.300      0.000      0.000      0.100      0.300      0.000      0.000      0.000      0.000      0.000
NH       5.300      0.060    820.000      0.085   2870.000      0.065   4082.000      0.020   4147.000      0.050
NH    4295.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
          LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.
X1       5.350     27.000   4082.000   4147.000    500.000    730.000    730.000      0.000      0.000      0.000
X3      10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    1954.000      0.000   1952.000    350.000   1952.000    500.000   1948.000    820.000   1948.000   1000.000
GR    1951.700   1480.000   1952.000   1630.000   1952.000   1800.000   1952.500   2350.000   1953.800   2870.000
GR    1952.900   3000.000   1952.000   3300.000   1950.200   3532.000   1948.800   3708.000   1950.200   3832.000
GR    1951.400   3939.000   1951.100   4006.000   1950.000   4031.000   1949.000   4047.000   1948.200   4082.000
GR    1942.400   4100.000   1942.200   4100.000   1942.400   4130.000   1949.700   4147.000   1952.500   4151.000
GR    1956.000   4269.000   1960.000   4295.000      0.000      0.000      0.000      0.000      0.000      0.000

NH       5.300      0.060   1000.000      0.065   2050.000      0.060   4228.000      0.020   4285.000      0.060
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NH	4327.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.

X1	6.010	22.000	4228.000	4285.000	780.000	805.000	805.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1963.000	0.000	1966.000	1.000	1964.000	400.000	1964.000	500.000	1961.000	1000.000
GR	1960.000	1400.000	1960.800	1800.000	1961.300	2050.000	1960.000	2300.000	1960.000	3000.000
GR	1959.500	3100.000	1958.000	3450.000	1960.000	3650.000	1962.000	3700.000	1962.500	4000.000
GR	1960.000	4228.000	1956.000	4242.000	1955.000	4258.000	1956.000	4272.000	1960.000	4285.000
GR	1964.000	4301.000	1968.000	4327.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.055	9500.000	0.065	12400.000	0.060	12994.000	0.020	13052.000	0.050
NH	13125.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OT	3.000	4000.000	4200.000	4400.000	0.000	0.000	0.000	0.000	0.000	0.000

1

LOB REALIGNED UPSTREAM. FLAT CROWN 10300 TO 11530 @ 1966 EL.

X1	6.140	25.000	12994.000	13052.000	400.000	730.000	725.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	8650.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1972.000	8400.000	1969.700	8650.000	1968.000	9000.000	1968.000	9500.000	1964.700	9950.000
GR	1964.700	10050.000	1966.000	10300.000	1966.000	10700.000	1966.000	11250.000	1966.000	11530.000
GR	1964.400	11800.000	1965.000	12000.000	1964.000	12140.000	1963.000	12280.000	1963.000	12400.000
GR	1964.000	12610.000	1965.500	12900.000	1966.200	12981.000	1966.200	12994.000	1957.500	13011.000
GR	1957.400	13040.000	1966.000	13052.000	1967.900	13054.000	1969.200	13062.000	1970.700	13125.000
NH	4.000	0.065	11550.000	0.060	12422.000	0.020	12479.000	0.060	13040.000	0.000
ET	0.000	6.100	6.100	6.100	6.100	8850.000	13100.000	0.000	0.000	0.000

LOB, ENCR TOMIYASU LANE. CROWN 10450 TO 11150 @ 1972 EL. LC=12455.

X1	6.300	21.000	12422.000	12479.000	520.000	865.000	855.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	3.000	1972.000	8480.000	1970.000	8560.000	1972.000	8850.000	0.000	0.000	0.000
GR	1976.000	7960.000	1974.000	9200.000	1972.000	9370.000	1972.000	9800.000	1971.000	10000.000
GR	1972.000	10500.000	1970.000	10720.000	1971.000	10900.000	1972.000	11450.000	1972.000	11550.000
GR	1970.000	12070.000	1971.500	12150.000	1971.700	12360.000	1972.000	12422.000	1964.000	12435.000
GR	1964.000	12465.000	1972.000	12479.000	1972.000	12525.000	1973.400	12670.000	1976.000	12950.000
GR	1980.000	13100.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.850
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1948.20 ELREA= 1949.70

EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.

5.85	4.74	1946.94	1946.94	1955.00	1948.74	1.80	0.00	0.00	1948.20
2100.	0.	2100.	0.	0.	195.	0.	0.	0.	1549.70
0.00	0.00	10.77	0.33	0.084	0.020	0.050	0.000	1942.20	4085.92
0.004030	500.	730.	730.	0	15	0	0.00	54.64	4140.56

1
FLOW DISTRIBUTION FOR SECNO= 5.85 CWSEL= 1946.94

STA= 4086. 4147.

```
   PER Q=     100.0
    AREA=     195.9
     VEL=      10.8

1490 NH CARD USED
*SECNO 6.010

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.
      6.01       5.04  1960.04  1960.04      0.00  1960.50      0.46      2.02      0.13  1960.00
      2100.       793.     1307.       0.      724.      192.       0.       10.       14.   1960.00
       0.05       1.09      6.82      0.01     0.060     0.020     0.060     0.000  1955.00  1382.03
  0.001724       780.      805.      805.        20        14         0      0.00  1461.47  4285.18
?
!
  14-FEB-88     13:59:31                                                                    PAGE     4

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XAL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TCPWID     ENDST

FLOW DISTRIBUTION FOR SECNO=       6.01          CWSEL=    1960.04

STA=     1382.     3450.     3650.     4285.
   PER Q=     27.2      10.5      62.3
    AREA=    515.3     209.0     191.6
     VEL=      1.1       1.1       6.8

1490 NH CARD USED
*SECNO 6.140

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8650.0    13125.0   TYPE=      1   TARGET=    -8650.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1966.20 ELREA=      1966.00

          LOB REALIGNED UPSTREAM. FLAT CROWN 10300 TO 11530 @ 1966 EL.
      6.14       7.29  1964.69  1964.69      0.00  1967.50      2.80      1.81      0.70  1966.20
      4000.         0.     4000.       0.       0.      298.       0.       17.       21.   1966.00
       0.06       0.00     13.44      0.00     0.063     0.020     0.050     0.000  1957.40 12996.95
  0.003636       400.      725.      730.        20        11         0      0.00     53.23 13050.17
?
FLOW DISTRIBUTION FOR SECNO=       6.14          CWSEL=    1964.69

STA=    12997.    13052.
   PER Q=     100.0
    AREA=     297.7
     VEL=      13.4

1490 NH CARD USED
*SECNO 6.300
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
```

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8950.0 13100.0 TYPE= 1 TARGET= 4250.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1972.00 ELREA= 1972.00

LOB, ENCR TOMIYASU LANE, CROWN 10450 TO 11150 @ 1972 EL. LC=12455.

6.30	7.19	1971.19	1971.19	0.00	1973.90	2.70	3.05	0.01	1972.00
4000.	0.	4000.	0.	0.	303.	0.	23.	22.	1972.00
0.08	0.00	13.20	0.00	0.063	0.029	0.050	0.000	1964.00	12423.31
0.003495	520.	855.	865.	20	8	0	0.00	54.28	12477.59

FLOW DISTRIBUTION FOR SECNO= 6.30 CWSEL= 1971.19

STA=	12423.	12479.
PER Q=	100.0	
AREA=	303.1	
VEL=	13.2	

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1
T2
T3 50-YR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	-1.000000	0.00	0.0	0.	1955.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300

1490 NH CARD USED
*SECNO 5.850
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1948.20 ELREA= 1949.70

EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.

5.85	4.86	1947.06	1947.16	1955.00	1948.91	1.85	0.00	0.00	1948.20
2200.	0.	2200.	0.	0.	202.	0.	0.	0.	1949.70
0.00	0.00	10.91	0.00	0.080	0.020	0.050	0.000	1942.20	4085.55
0.004022	500.	730.	730.	0	16	0	0.00	55.29	4140.84

FLOW DISTRIBUTION FOR SECNO= 5.85 CWSEL= 1947.06

STA= 4086. 4147.
PER Q= 100.0
AREA= 201.6
VEL= 10.9

1490 NH CARD USED
*SECNO 6.010

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.

6.01	5.12	1960.12	1960.12	0.00	1960.55	0.43	1.55	0.14	1960.00
2200.	879.	1321.	0.	839.	196.	0.	11.	14.	1960.00
0.05	1.05	6.74	0.01	0.060	0.020	0.060	0.000	1955.00	1350.54
0.001630	780.	805.	805.	20	9	0	0.00	1556.93	4285.49

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SECNO	DEPTH	CWSEL	CRITWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.01 CWSEL= 1960.12

STA= 1351. 3450. 3650. 4223. 4285.
PER Q= 28.9 11.0 0.0 60.0
AREA= 613.0 224.7 0.9 196.0
VEL= 1.0 1.1 0.2 6.7

1490 NH CARD USED
*SECNO 6.140

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8650.0 13125.0 TYPE= 1 TARGET= -8650.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1966.20 ELREA= 1966.00

LOB REALIGNED UPSTREAM, FLAT CROWN 10300 TO 11530 @ 1966 EL.

5.14	7.50	1964.90	1964.90	0.00	1967.77	2.87	1.75	0.73	1966.20	
4200.	0.	4200.	0.	0.	309.	0.	19.	22.	1966.00	
0.05	0.00	13.59	0.00	0.063	0.020	0.050	0.000	1957.40	12996.53	
0.003607	403.	725.	730.	20	11	0	0.00	53.94	13050.47	

FLOW DISTRIBUTION FOR SECNO= 6.14 CWSEL= 1964.90

STA= 12997. 13052.
PER Q= 100.0
AREA= 309.0
VEL= 13.6

1490 NH CARD USED
*SECNO 6.300
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8850.0 13100.0 TYPE= 1 TARGET= 4250.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1972.00 ELREA= 1972.00

LOB, ENCR TOMIYASU LANE. CROWN 10450 TO 11150 @ 1972 EL. LC=12455.

5.30	7.33	1971.33	1971.33	1971.19	1974.17	2.84	3.08	0.00	1972.00
4200.	0.	4200.	0.	0.	311.	0.	25.	23.	1972.00
0.08	0.00	13.51	0.00	0.063	0.020	0.060	0.000	1964.00	12423.08
0.003590	520.	855.	865.	20	10	0	0.00	54.75	12477.83

FLOW DISTRIBUTION FOR SECNO= 6.30 CWSEL= 1971.33

STA= 12423. 12479.
PER Q= 100.0
AREA= 310.8
VEL= 13.5

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1
T2
T3 100-YR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	-1.000000	0.00	0.0	0.	1955.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE

15.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 15.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 5.850
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1948.20 ELREA= 1949.70

EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.

5.85	4.99	1947.19	1947.19	1955.00	1949.07	1.88	0.00	0.00	1948.20
2300.	0.	2300.	0.	0.	209.	0.	0.	0.	1949.70
0.00	0.00	11.01	0.00	0.000	0.020	0.050	0.000	1942.20	4085.14
0.003972	500.	730.	730.	0	13	0	0.00	56.01	4141.15

FLOW DISTRIBUTION FOR SECNO= 5.85 CWSEL= 1947.19

STA=	4085.	4147.
PER Q=	100.0	
AREA=	208.9	
VEL=	11.0	

1490 NH CARD USED
*SECNO 6.010

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.

5.01	5.38	1960.08	1960.38	0.00	1960.59	0.51	2.15	0.14	1960.00
2300.	890.	1410.	0.	773.	193.	0.	11.	14.	1960.00
0.05	1.15	7.29	0.31	0.060	0.020	0.060	0.000	1955.00	1368.51
0.001941	780.	805.	805.	20	15	0	0.00	1502.46	4285.31

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 5.01 CWSEL= 1960.08

STA=	1369.	3450.	3650.	4228.	4285.
PER Q=	27.9	10.8	0.3	61.3	
AREA=	556.4	215.7	0.3	193.5	

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 VEL=      1.2       1.1       0.1       7.3

 1490 NH CARD USED
 *SECNO 6.140

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     8650.0    13125.0  TYPE=      1  TARGET=   -8650.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1966.20 ELREA=      1966.00

          LOB REALIGNED UPSTREAM. FLAT CROWN 10300 TO 11530 @ 1966 EL.
      6.14      7.68   1965.08   1965.08      0.00   1968.04      2.96      1.90      0.73   1966.20
   4400.         0.      4400.        3.         0.     319.         0.      18.       22.    1966.00
      0.06      0.00     13.81      0.00      0.063     0.020     0.050     0.000  1957.40 12996.18
 0.003630       400.      725.      730.         20        14         0      0.00    54.53 13050.72
1
 FLOW DISTRIBUTION FOR SECNO=       6.14           CWSEL=   1965.08

 STA=    12996.    13052.
   PER_Q=     100.0
    AREA=     318.7
     VEL=      13.8

 1490 NH CARD USED
 *SECNO 6.300

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XAL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     8650.0   13100.0  TYPE=      1  TARGET=    4250.000
          LOB, ENCR TOMIYASU LANE. CROWN 10450 TO 11150 @ 1972 EL. LC=12455.
      6.30      8.19   1972.19   1972.19   1971.19   1972.71      0.52      1.31      0.24   1972.00
   4400.      1731.     2666.        3.      2418.     359.        11.       40.       42.    1972.00
      0.10      0.72      7.43      0.24      0.063     0.020     0.050     0.000  1964.00  8850.00
 0.000949       520.      855.      865.         20         9         0      0.00  3224.68 12544.85
2
 FLOW DISTRIBUTION FOR SECNO=       6.30           CWSEL=   1972.19

 STA=     8850.    10530.    10720.    10900.    11450.    12070.    12360.    12422.    12479.    12545.
   PER_Q=      6.5       4.7       6.9       4.8      12.2       4.1       0.2      60.6       0.1
    AREA=    571.3     262.2     304.5     380.4     638.8     239.6      21.2     358.9      10.7
     VEL=      0.5       0.8       1.0       0.6       0.8       0.7       0.4       7.4       0.2

1
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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

 25-YEAR WITH LINED CHAN
SUMMARY PRINTOUT TABLE  150
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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	5.850	0.00	0.00	0.00	1942.20	2100.00	1946.94	1946.94	1948.74	40.30	10.77	194.95	330.82
*	5.850	0.00	0.00	0.00	1942.20	2200.00	1947.06	1947.06	1948.91	40.22	10.91	201.57	346.89
*	5.850	0.00	0.00	0.00	1942.20	2300.00	1947.19	1947.19	1949.07	39.72	11.01	208.90	364.93
*	6.010	805.00	0.00	0.00	1955.00	2100.00	1960.04	1960.04	1960.50	17.24	6.82	915.93	505.73
*	6.010	805.00	0.00	0.00	1955.00	2200.00	1960.12	1960.12	1960.55	16.30	6.74	1034.75	544.99
*	6.010	805.00	0.00	0.00	1955.00	2300.00	1960.08	1960.08	1960.59	19.41	7.29	966.03	522.03
*	6.140	725.00	0.00	0.00	1957.40	4000.00	1964.69	1964.69	1967.50	36.36	13.44	297.65	663.33
*	6.140	725.00	0.00	0.00	1957.40	4200.00	1964.90	1964.90	1967.77	36.07	13.59	309.01	699.33
*	6.140	725.00	0.00	0.00	1957.40	4400.00	1965.08	1965.08	1968.04	36.30	13.81	318.66	730.27
*	6.300	855.00	0.00	0.00	1964.00	4000.00	1971.19	1971.19	1973.90	34.95	13.20	303.14	676.61
*	6.300	855.00	0.00	0.00	1964.00	4200.00	1971.33	1971.33	1974.17	35.90	13.51	310.80	700.94
*	6.300	855.00	0.00	0.00	1964.00	4400.00	1972.19	1972.19	1972.71	9.49	7.43	2787.64	1428.30

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	5.850	2100.00	1946.94	0.00	0.00	-8.06	54.64	0.00
*	5.850	2200.00	1947.06	0.12	0.00	-7.94	55.29	0.00
*	5.850	2300.00	1947.19	0.13	0.00	-7.81	56.01	0.00
*	6.010	2100.00	1960.04	0.00	13.11	0.00	1461.47	805.00
*	6.010	2200.00	1960.12	0.08	13.07	0.00	1556.93	805.00
*	6.010	2300.00	1960.08	-0.04	12.89	0.00	1502.46	805.00
*	6.140	4000.00	1964.69	0.00	4.65	0.00	53.23	725.00
*	6.140	4200.00	1964.90	0.21	4.78	0.00	53.94	725.00
*	6.140	4400.00	1965.08	0.18	5.00	0.00	54.53	725.00
*	6.300	4000.00	1971.19	0.00	6.50	0.00	54.28	855.00
*	6.300	4200.00	1971.33	0.14	6.43	0.14	54.75	855.00
*	6.300	4400.00	1972.19	0.86	7.11	1.00	3224.68	855.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=     5.850  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     5.850  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     5.850  PROFILE= 3  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=     6.010  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.010  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.010  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.010  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.010  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.010  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.010  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.010  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.010  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     6.140  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.140  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.140  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.140  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.140  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.140  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.140  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.140  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.140  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     6.300  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.300  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.300  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.300  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.300  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.300  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=     6.300  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     6.300  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     6.300  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

see 5.85 - 6.30

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C
C        5
C    5.85 EXTENDED LOB SPLIT FLOW TO JUDGE SPLIT POINT AND X-SECTION LOCATION,
C    5.85 LC=4132. SPLIT DIVIDE @ STA 2870, 1953.8 EL.
C    6.01 SPLIT STA 3000=1960 EL OR 1961.3 @ STA 2050. LC=4258.
C    6.14 LOB REALIGNED UPSTREAM. FLAT CROWN 10300 TO 11530 @ 1966 EL.
C    6.30 LOB, ENCR TOMIYASU LANE. CROWN 10450 TO 11150 @ 1972 EL. LC=12455.
T1       LAS VEGAS WASH OVERFLOW STUDY
T2       NONDAMAGING FLOW ANALYSIS
T3       25-YEAR WITH LINED CHANNEL IN EXTREME RIGHT SIDE OF FLOOD PLAIN.
J1       0         2                  -1                                  1955
J2       1         0        -1
QT       3      2100      2200      2300                                          15
NC                                   0.1       0.3
NH       5      0.06       820     0.085      2870     0.065      4082      0.02      4147      0.05
NH    4295
X1    5.85        27      4082      4147       500       730       730
X3      10
GR    1954         0      1952       350      1952       500      1948       820      1948      1000
GR1951.7      1480      1952      1630      1952      1800    1952.9      2350    1953.8      2870
GR1952.9      3000    1952.0      3300    1950.2      3532      1948.8      3708    1950.2      3832
GR1951.4      3939    1951.1      4006      1950      4031      1949      4047      1948.2      4082
GR1942.4      4100    1942.2      4100    1942.4      4130    1949.7      4147    1952.9      4151
GR1956.0      4269      1960      4295
NH       5    0.06      1000     0.065      2050     0.060      4228      0.02      4285     0.060
NH    4327
X1    6.01        22      4228      4295       780       805       805
X3      10
GR    1958         0      1966         1      1964       400      1964       500      1961      1000
GR    1960      1430    1960.8      1900    1961.3      2050      1960      2300      1960      3000
GR1959.5      3100      1958      3450      1960      3650      1962      3700    1962.5      4000
GR    1960      4228      1956      4242      1955      4258      1956      4272      1960      4285
GR    1964      4301      1968      4327
NH       5    1.055      9500     0.065     12400      0.06     12994      0.02     13052      0.05
NH   13125
QT       3      4000      4200      4400
X1    6.14        25     12994     13052       400       730       725
X3      10                          8650
GR    1972      8400    1969.7      8650      1968      9000      1968      9500    1964.7      9950
GR1964.7      10050      1966     10300      1966     10700      1966     11250      1966     11530
GR1964.4      11800      1965     12000      1964     12140      1963     12280      1963     12400
GR    1964      12610    1965.5     12900    1966.2     12981    1966.2     12994    1957.5     13011
GR1957.4      13040      1966     13052    1967.9     13054    1969.2     13062    1970.7     13125
NH       4    0.065     11550      0.06     12422      0.02     12479      0.06     13040
ET              6.1       6.1       6.1       6.1      8850     13100
X1    6.30        21     12422     12479       520       865       855
X3      10
X4       3      1972      8480      1970      8560      1972      8850
GR    1976      7960      1974      9200      1972      9370      1972      9800      1971     10000
GR    1972     10500      1970     10720      1971     10900      1972     11450      1972     11550
GR    1970     12070    1971.5     12150    1971.7     12360      1972     12422      1964     12435
GR    1964     12465      1972     12479      1972     12525    1973.4     12670      1976     12950
GR    1980     13100
EJ
T1
T2
T3            50-YR
J1       0         3                  -1                                  1955
J2       2                  -1                                                    15
T1
T2
T3           100-YR
J1       0         4                  -1                                  1955
J2      15         0                                                              15
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GR	1784	15900	1788	16900					
ET		6.1			8.1	9927	10073	14050	
X1	6.751	32	9928	10072	5	5	5		
X3	10								
X4	1	1771.4	10047						
BT	-4	9928	1783	1783	9947	1783	1782	10053	1783	1782
BT		10072	1783	1783					
GR	1790	160	1784	1150	1784	2940	1783	6700	1783.5	7000
GR	1783.5	7800	1784	8250	1784	8800	1782	8900	1782	9250
GR	1780	9550	1780	9850	1783	9928	1771.4	9947	1771.4	9953
GR	1782	9953	1782	9997	1771.4	9957	1770.9	9998	1782	9998
GR	1782	10002	1770.9	10002	1771.4	10043	1782	10043	1782	10047
GR	1771.4	10053	1783	10072	1783	12000	1783.5	12400	1783.5	15600
GR	1784	15900	1788	16900						
ET		6.1			8.1	9927	10073		14050	
X1	6.76				100	100	100		0.2	
X2			0				1			
X3	10									
ET		6.1			8.1	9927	10073		14050	
X1	6.761	22	9928	10072	140	220	220		0.2	
X3	10									
GR	1790	160	1784	1150	1784	2940	1783	6700	1783.5	7000
GR	1783.5	7800	1784	8250	1784	8800	1782	8900	1782	9250
GR	1780	9550	1780	9850	1783	9928	1771.4	9947	1770.9	10000
GR	1771.4	10053	1783	10072	1783	12000	1783.5	12400	1783.5	15600
GR	1784	15900	1788	16900						
ET					8.1				14100	
X1	6.92	36	11321	11410	580	840	830			
X3	10									
X4	1	1790.0	900							
GR	1793.0	680	1788	1000	1788	2000	1787	3500	1788	4850
GR	1785	6450	1785	9200	1784	9550	1784	10200	1784	10200
GR	1787.3	11000	1787.7	11145	1786.5	11169	1786.6	11200	1787.0	11289
GR	1791.0	11321	1781.8	11334	1777.7	11357	1777.7	11366	1779.0	11378
GR	1781.0	11406	1790.9	11410	1786.9	11426	1790.0	11437	1789.9	11504
GR	1788.3	11551	1788.1	11559	1788.1	11578	1788.1	11605	1788.1	11612
GR	1788.6	11622	1786	12100	1786.	12300	1788	13600	1788	16450
GR	1792	17230								
ET		6.1				11200	12370			
NC				0.1	0.3					
X1	7.14	31	12150	12369	580	1250	1200			
X3	10									
GR	1800	450	1791	1050	1790	1500	1789.5	2300	1788	3700
GR	1789	4600	1789	6200	1788	7200	1788	10450	1792.5	11200
GR	1791.0	12000	1791.0	12114	1791.0	12150	1787.0	12224	1779.2	12259
GR	1779.2	12265	1782.4	12272	1785.6	12280	1792.0	12293	1792.0	12312
GR	1798.8	12369	1791.6	12391	1793.1	12412	1792.8	12524	1792.6	12729
GR	1791.5	12878	1791.8	12931	1792	12970	1794	13300	1795	14000
GR	1795	16200	1796	16630	1800	16800				
NH	4	.050	10980	.070	12321	.025	12437	.160	13730	
X1	7.34	33	12321	12437	600	1300	1050			
X3	10									
GR	1800.0	150	1795.0	900	1790.0	3500	1792.0	5000	1792.0	6850
GR	1791.0	8600	1791.0	9500	1792.0	9600	1792.0	10010	1796.0	10980
GR	1796.0	12000	1796.3	12048	1795.8	12125	1796.6	12229	1795.7	12268
GR	1798.0	12321	1786.7	12343	1786.2	12358	1785.5	12371	1787.2	12411
GR	1796.5	12437	1794.1	12463	1794.1	12531	1794.1	12538	1796.9	12548
GR	1797.2	12571	1795.3	12600	1794.2	12626	1794.6	12642	1799.6	12656
GR	1804.4	12726	1800.5	12730	1804.0	13730				
NC				0.3	0.5					
NH	6	.045	6250	.055	9000	.045	9550	.060	11410	.025
NH	11577	0.16	12410							
X1	7.60	24	11410	11577	1200	1350	1360			
X3	10									
GR	1804.0	200	1800.0	600	1798.0	1300	1796.5	1600	1796.5	3300
GR	1799.5	4300	1799.0	6250	1799.5	6800	1796.0	8000	1796.0	8290
GR	1797.0	8450	1797.0	8800	1800.2	9550	1800.0	9930	1804.0	10730
GR	1806.0	11200	1804.5	11280	1803.9	11410	1793.8	11441	1793.8	11546

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GR1803.8   11577    1804.8    11790    1805.7    11970    1808.0    12410
ET             6.1                               11280    11790
NH         6    .045      6250      .055      8000      .045      9550      .060     11410      .025
NH     11577    0.16     12410
K1      7.601      39     11410     11577         5         5         5
K3         10
BT        -4   11410    1803.9    1803.9    11440    1803.9    1802.3    11547    1803.8    1802.3
BT             11577    1803.8    1803.8
GR1804.0         200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5        4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0        8450    1797.0      8800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0       11200    1804.5     11280    1803.9     11410    1793.8     11440    1802.3     11440
GR1802.3   11443.5    1793.8  11443.5    1793.8  11474.5    1802.3  11474.5    1802.3     11478
GR1793.8       11478    1793.8     11509    1802.3     11509    1802.3  11512.5    1793.8  11512.5
GR1793.8   11543.5    1802.3  11543.5    1802.3     11547    1793.8     11547    1803.8     11577
GR1803.8       11577    1804.8     11790    1805.7     11970    1808.0     12410
ET             6.1                               11280    11790
NH         6    .045      6250      .055      8000      .045      9550      .060     11410      .025
NH     11577    0.16     12410
K1      7.610      39     11410     11577        70        70        70
K3         10
BT        -4   11410    1803.9    1803.9    11440    1803.9    1802.3    11547    1803.8    1802.3
BT             11577    1803.8    1803.8
GR1804.0         200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5        4300    1799.0      6250    1799.5      6800    1796.0      8010    1796.0      8290
GR1797.0        8450    1797.0      8800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0       11200    1804.5     11280    1803.9     11410    1793.9     11439    1802.3     11439
GR1802.3   11444.5    1793.9  11444.5    1793.9  11473.5    1802.3  11473.5    1802.3     11479
GR1793.9       11479    1793.9     11508    1802.3     11508    1802.3  11513.5    1793.9  11513.5
GR1793.9   11542.5    1802.3  11542.5    1802.3     11547    1793.8     11547    1803.8     11577
GR1803.8       11577    1804.8     11790    1805.7     11970    1808.0     12410
ET             6.1                               11280    11790
NH         6    .045      6250      .055      8000      .045      9550      .060     11410      .025
NH     11577    0.16     12410
K1      7.611      24     11410     11577         5         5         5
K3         10
GR1804.0         200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5        4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0        8450    1797.0      8800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0       11200    1804.5     11280    1803.9     11410    1793.9     11441    1793.9     11547
GR1803.8       11577    1804.8     11790    1805.7     11970    1808.0     12410
NH         6    .040      5800      .070      7700      .040     10500      .120     11640      .025
NH     11930    .160     13620
K1       7.68      32     11640     11930       290       220       280
K3         10
GR1810.0         400    1800.0      1650    1799.0      2200    1799.0      3750    1800.0      4000
GR1802.0        4450    1801.0      5800    1801.0      6800    1801.0      7700    1800.0      8070
GR1800.0        8350    1797.5      8550    1797.5      8700    1800.0      9060    1799.0      9250
GR1799.0        9400    1800.0      9610    1804.0     10500    1804.4     11000    1808.3     11640
GR1808.0       11710    1796.0     11760    1794.5     11790    1794.5     11830    1796.0     11840
GR1808.0       11879    1809.5     11930    1806.5     12200    1806.8     12470    1808.0     12570
GR1809.0       13100    1812.0     13620
ET             6.1                               12418    12669
VC                                  0.1       0.3
NH         5    .040      3400      .060     12470      .025     12766      .040     13400      .160
NH     14200
X1      7.97      34     12454     12563      1750      1340      1610
X3         10
X4          2  1813.0     11000    1813.0     11700
GR1816.0         500    1812.0      1000    1810.0      1800    1810.0      2400    1813.0      3400
GR1811.0        4600    1811.0      7500    1812.0      8500    1810.0      9450    1810.0     10000
GR1815.2       12000    1816.6     12227    1815.6     12313    1813.6     12367    1815.1     12418
GR1812.8       12442    1812.9     12454    1812.0     12470    1806.5     12503    1806.0     12515
GR1806.0       12526    1806.7     12540    1808.8     12561    1812.4     12563    1813.7     12597
GR1814.5       12659    1813.0     12701    1814.0     12736    1815.0     12756    1816.0     12766
GR1816.7       12794    1815.0     13250    1816.0     13400    1816.0     14200
NH         6    .040      3800      .060      7800      .050      8941      .030      9014      .050
NH      9204    0.14     11140
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X1   8.19        39      8941      9014      1110       930      1140
X3       10
GR1823.0        300    1817.0      1200    1816.0      2500    1820.0      3800    1818.0      4980
GR1819.0       5810    1816.0      7030    1820.0      7800    1820.0      8010    1820.0      8000
GR1819.2       8000    1819.6      8169    1819.4      8498    1820.1      8794    1820.5      8949
GR1821.5       8875    1820.3      8921    1822.6      8927    1823.9      8941    1812.5      8952
GR1810.6       8975    1810.6      8988    1813.2      9001    1814.1      9010    1823.9      9014
GR1820.9       9040    1823.5      9062    1326.7      9084    1826.3      9115    1820.8      9150
GR1819.5       9153    1821.5      9204    1822.0      9255    1823.0      9550    1823.0     10300
GR1823.0      10530    1824.0     10650    1824.0     10940    1824.5     11140
QT       1     6260
NH       5     .040      4430      .060      9005      .025      9094      .030      9400      0.14
NH   10560
X1   8.27        23      9006.     9094.      350       300       330
X3       10                                                   1825.0    1825.0
X4       3    1821.0      8000    1823.0      8650    1823.0      8850
GR1824.0        600    1820.0      1300    1819.0      2400    1820.0      3200    1824.0      4000
GR1822.0       4430    1819.5      5200    1821.0      5850    1819.5      6770    1819.5      7400
GR 1824.      9000.     1824.     9006.     1814.0     9018.    1813.7     9050.    1814.0     9082.
GR1822.2       9094.     1823.     9100.     1823.0     9290    1824.0      9400    1824.5      9500
GR1825.0      10050    1825.0     10450    1826.0     10560
QT       1     5330
NC                                 0.3       0.5
NH       5     .040      4430      .060      9006      .015      9095      .030      9400      0.14
NH   10560
X1   8.271       48      9017.     9095.        5         5         5
X3       10                                                   1825.0    1825.0
X4       3    1821.0      8000    1823.0      8650    1823.0      8850
BT      -4      9006    1824.0                9017    1824.1    1821.7      9025    1823.2    1821.7
BT              9095    1823.2    1821.7
GR1824.0        600    1820.0      1300    1819.0      2400    1820.0      3200    1824.0      4000
GR1822.0       4430    1819.5      5200    1821.0      5850    1819.5      6770    1819.5      7400
GR 1824.      9000.     1824.     9006.     1824.0     9017    1813.7    9017.0    1813.7      9025
GR1821.7       9028.3  1813.7     9028.3   1813.7     9034.3   1821.7    9034.3    1821.7     9037.6
GR1813.7       9037.6  1813.7     9043.6   1821.7     9043.6   1821.7    9047.2    1813.7     9047.2
GR1813.7       9057.2  1821.7     9057.2   1321.7       9060   1813.7      9060    1813.7       9070
GR1821.7         9070  1921.7       9073   1813.7       9073   1813.7      9083    1821.7       9083
GR1821.7       9086.6  1813.7     9086.6   1813.7     9095.0   1823.2      9095    1823.2       9095
GR1822.2       9096.     1823.     9100.     1823.0     9290    1824.0      9400    1824.5      9500
GR1825.0      10050    1825.0     10450    1826.0     10560
ET                6.1                                 8940      9140
NC   .055       0.14      .015       0.1       0.3
X1   8.31         48.    9040.     9116.      235.      235.      235.
X2
X3       10
X4        1   1824.0      8280
BT       -5      8940    1824.0                9040    1824.1    1822.0      9046    1823.2    1822.0
BT             9116.0    1824.1    1822.0      9120    1824.0
GR1826.5        800    1822.0      1200    1822.0      2400    1823.0      3200    1823.0      3200
GR1824.0       4000    1823.8      5850    1823.5      6050    1821.0      6770    1822.0      7800
GR 1826.      8900.     1826.     8940      1824.1     9040    1814.0    9040.0    1814.0      9046
GR1822.0       9046    1822.0     9051.3   1814.0     9051.3   1814.0    9055.3    1822.0     9055.3
GR1822.0      9060.6   1814.0     9060.6   1814.0     9064.6   1822.0    9064.6    1822.0     9070.2
GR1814.0      9070.2   1814.0     9078.2   1822.0     9078.2   1822.0    9083.0    1814.0       9083
GR1814.0       9091    1822.0       9091   1822.0       9096   1814.0      9096    1814.0       9104
GR1822.0       9104    1822.0     9109.6   1814.0     9109.6   1814.0    9116.0    1824.0       9116
GR1824.0      9120.     1826.     9140.     1824.     9148.     1823.6      9270    1823.6      9580
GR1824.0       9770    1826.0     10130    1826.0     11780
QT       1     5520
ET                6.1                                 8900      9270
NC   .055       0.14      .025       0.3       0.5
X1  8.311         23.    9014.     9140.        5.        5.        5.
X3       10
X4        1   1824.0      8280
GR1826.5        800    1822.0      1200    1822.0      2400    1823.0      3200    1823.0      3200
GR1824.0       4000    1823.8      5850    1823.5      6050    1821.0      6770    1822.0      7800
GR 1826.      8900.     1826.     8940      1824.1     9014.    1814.5    9034.      1814.     9075.
GR1814.5      9120.     1824.     9140.     1824.     9148.     1823.6      9270    1823.6      9580
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SR1824.0      9770   1826.0   10130   1826.0   11780
NC                      0.1      0.3
NH       7     .040     2020     .060     3700     0.16     5380     .040     7000     0.16
NH    7863     .025     9094     0.16    11250
X1    8.61       39.    7863.    8094.    1570.    1370.    1560.
X3      10
X4       3  1830.5     2900   1830.0     7400   1832.0     7700
GR1832.0         0   1830.0      250   1829.0     2020   1829.0     3700   1829.0     5380
GR1831.0      5970   1827.0     6250   1827.0     6730   1830.0     6880   1825.1     7000
GR1833.1  007741   1833.1  007741   1833.1  007741   1833.1  007741   1833.1  007741
GR1832.7  007754   1830.2  007793   1830.2  007836   1832.8  007863   1832.6  007923
GR1829.9  007952   1822.7  007970   1818.9  008025   1820.1  008039   1822.1  008062
GR1830.3  008077   1832.3  008094   1832.3  008135   1832.4  008173   1832.0     8180
GR1832.0      8710   1832.0     9180   1832.0     9230   1832.0    10070   1832.4    10360
GR1833.0     10500   1834.0    10750   1834.0    11100   1836.0    11250
NH       4     .040     1700     0.16     7007     .025     7188     0.16    11180
X1    8.85       49    7007.    7188.    1370.    1200.    1250.
X3      10                                                          1837.0
X4       1  1836.0     4180
GR1840.0         0   1837.0      250   1837.0     1700   1837.0     2550   1840.0     3730
GR1837.0      4900   1833.3  005000   1834.2  005102   1833.9  005248   1834.6  005315
GR1833.9  005362   1834.0  005458   1834.2  005626   1834.0  005773   1833.5  005856
GR1833.7  005977   1834.6  006004   1834.3  006111   1833.7  006220   1837.7     6395
GR1837.7  006554   1838.1  006837   1838.8  006858   1839.4  006879   1837.9  006900
GR1837.2  006953   1837.0  006981   1837.6  007007   1834.4  007013   1833.0  007025
GR1827.3  007031   1825.1  007044   1824.4  007064   1824.4  007099   1826.2  007119
GR1825.9  007122   1833.5  007134   1835.6  007142   1837.7  007163   1837.8  007188
GR1837.8      7250   1838.0     7420   1838.0     8170   1835.5     8550   1835.7     9570
GR1838.0     10080   1840.0    10450   1842.0    10870     1844    11130
QT       1     5450
NC                              0.3      0.5
NH       6     .040     4500     0.16     9100     .080     9910     .025    10070     0.16
NH   11770     0.12    13920
X1    8.90       35    9910.   10070.     170.     360.     230.
X3      10                                                  1837.8   1838.0
X4       2  1840.0     2800   1836.5     6980
GR1843.0      2650   1837.5     3050   1837.5     4500   1837.5     5350   1841.0     6530
GR1839.0      7700   1837.0     7800   1836.0     7880   1836.0     8140   1835.9     8550
GR1835.2      8850   1836.5     9100   1837.6     9340   1837.5     9870   1837.8     9890
GR1837.8      9910   1826.0     9950   1825.2     9955   1825.2    10020   1826.0    10025
GR1838.0     10070   1838.0    10270   1839.1    10430   1838.0    10800   1837.     11000.
GR1837.0     11770   1838.0    11940   1838.0    12530   1838.0    12810   1840.0    12870
GR1840.0     13200   1842.0    13250   1844.0    13580   1844.0    13900   1846.0    13920
NH       6     .040     4500     0.16     9100     .080     9910     .015    10070     0.16
NH   11770     0.12    13920
X1    8.901      50    9950.   10019.       5.       5.       5.
X3      10                                                  1837.8   1838.0
X4       3  1840.0     2800   1836.5     6980   1838.0    10070
BT      -7     9890   1837.8                     9910   1838.1                9950   1838.5   1832.4
BT             9988   1838.7   1832.4    10019   1838.5   1832.4    10070   1838.2
BT            10270   1838.0
GR1843.0      2650   1837.5     3050   1837.5     4500   1837.5     5350   1841.0     6530
GR1839.0      7700   1837.0     7800   1836.0     7880   1836.0     8140   1835.9     8550
GR1835.2      8850   1836.5     9100   1837.6     9340   1837.5     9870   1837.8     9890
GR1837.8      9910   1837.8     9950   1825.2     9950   1825.2     9959   1832.4     9959
GR1832.4      9964   1825.2     9964   1825.2     9974   1832.4     9974   1832.4     9979
GR1825.2      9979   1825.2     9989   1832.4     9989   1832.4     9994   1825.2     9994
GR1825.2     10004   1832.4    10004   1832.4    10009   1825.2    10009   1825.2    10019
GR1838.0     10019   1838.0    10270   1839.1    10430   1838.0    10800   1837.     11000.
GR1837.0     11770   1838.0    11940   1838.0    12530   1838.0    12810   1840.0    12870
GR1840.0     13200   1842.0    13250   1844.0    13580   1844.0    13900   1846.0    13920
QT              6.1                              9890    10430
NC                              0.1      0.3
NH       5     .040     4500     0.16     9100     .080     9910     .015    10070     0.16
NH   11770     0.12    13920
X1    8.91       50    9950.   10018.       70.      70.      70.
X2
X3      10                                                  1838.1   1838.1
```

X4	3	1540.0	2800	1836.5	5980	1838.0	10070			
BT	-7	9890	1837.8		9910	1838.1		9950	1838.5	1832.8
BT		9988	1838.7	1832.8	10018	1838.5	1832.8	10070	1838.2	
BT		10270	1838.0							
GR1843.0		2650	1837.5	3050	1837.5	4500	1837.5	5350	1841.0	6530
GR1839.0		7700	1837.0	7800	1836.0	7880	1836.0	8140	1835.9	8550
GR1835.2		8850	1836.5	9100	1837.6	9340	1837.5	9870	1837.8	9890
GR1837.8		9910	1837.8	9950	1825.6	9950	1825.6	9958	1832.8	9958
GR1832.8		9955	1825.6	9965	1825.6	9973	1832.8	9973	1832.8	9980
GR1825.6		9980	1825.6	9988	1832.8	9988	1832.8	9995	1825.6	9995
GR1825.6		10003	1832.8	10003	1832.8	10010	1825.6	10010	1825.6	10018
GR1838.0		10018	1838.0	10270	1839.1	10430	1838.0	10800	1837.	11000.
GR1837.0		11770	1838.0	11940	1838.0	12530	1838.0	12810	1840.0	12870
GR1840.0		13200	1842.0	13250	1844.0	13580	1844.0	13900	1846.0	13920
BT	1	5520								
ET		6.1				9910	10900			
NC				0.3	0.5					
NH	5	.040	4500	0.16	9100	.080	9910	.025	10070	0.16
NH	11770	0.12	13920							
X1	8.911	35	9945.	10025.	5.	5.	5.			
X3	10							1838.1	1838.1	
X4	2	1840.0	2800	1836.5	6980					
GR1843.0		2650	1837.5	3050	1837.5	4500	1837.5	5350	1841.0	6530
GR1839.0		7700	1837.0	7900	1836.0	7880	1836.0	8140	1835.9	8550
GR1835.2		8850	1836.5	9100	1837.6	9340	1837.5	9870	1837.8	9890
GR1837.8		9910	1828.0	9945	1825.6	9960	1825.6	10015	1828.0	10025
GR1838.0		10070	1838.0	10270	1839.1	10430	1838.0	10810	1837.	11000.
GR1837.0		11770	1838.0	11940	1838.0	12530	1838.0	12810	1840.0	12870
GR1840.0		13200	1842.0	13250	1844.0	13580	1844.0	13910	1846.0	13920
BT	1	3875								
ET		6.1				7186	7361			
NH	5	.040	2000	0.16	7219	.025	7349	0.16	8360	.11
NH	10960									
X1	9.06	32.	7219.	7349.	650.	830.	820.			
GR1845.0		500	1840.0	1400	1840.0	2000	1841.0	2800	1844.0	4450
GR1841.0		4800	1842.5	4850	1840.9	5000	1840.0	5350	1840.0	7110
GR1842.3		007186	1840.5	007219	1840.7	007238	1833.3	007255	1828.1	007301
GR1832.1		007328	1841.1	007349	1841.9	007361	1840.3	007375	1840.7	007406
GR1840.3		007451	1840.0	7670	1840.0	8360	1841.0	8750	1841.2	9140
GR1842.0		9130	1842.5	9450	1843.1	9900	1844.0	10100	1846.0	10510
GR1846.0		10700	1846.5	10960						
NC				0.1	0.3					
NH	9	.040	4000	0.16	4850	.035	5750	0.13	6630	.030
NH	7212	.026	7447	.036	7900	.050	8700	0.16	11320	
ET		6.1				6990	7900			
X1	9.30	39	7212	7447	1040	1070	1250			
X3	10					7900	1846.0			
X4	1	1850.0	1150							
GR1852.0		1000	1845.0	1880	1844.0	3080	1845.0	4000	1846.0	4700
GR1848.0		4950	1846.8	4950	1846.0	5000	1846.0	5300	1845.7	5430
GR1846.2		5750	1843.5	6150	1847.0	6990	1847.0	7152	1847.1	7212
GR1837.8		007232	1835.2	007252	1834.4	007263	1837.8	007291	1842.1	007307
GR1841.4		7327	1840.4	7346	1840.9	7376	1841.2	7390	1840.2	7407
GR1843.8		7422	1844.7	7447	1843.4	7468	1845.5	7840	1846.0	7900
GR1845.5		7980	1845.5	8700	1845.5	9520	1846.0	9760	1848.0	10000
GR1850.0		10400	1850.0	11080	1851.3	11150	1852.0	11320		
ET		6.1				4900	6120			
NC				0.3	0.5					
NH	8.	.080	2650	.040	4000	.060	4700	.037	5370	.025
NH	5496	.037	6120	.055	7650	.080	8900			
X1	9.41	43	5370.	5496.	840.	330.	570.			
X4	3	1850.0	-300	1850.0	1800	1848.5	3410			
GR1853.0		-800	1849.0	2200	1849.0	2650	1849.9	2760	1849.0	2960
GR1848.5		4000	1848.0	4150	1847.9	4250	1847.9	4700	1848.5	4900
GR1847.9		005000	1847.9	005065	1847.9	005118	1847.8	005134	1847.9	005242
GR1847.9		005264	1847.9	005306	1848.0	005352	1847.9	005370	1840.5	005389
GR1840.5		005417	1840.5	005461	1845.4	005480	1846.5	005496	1847.4	005535
GR1847.5		005559	1847.2	005579	1847.4	005601	1847.5	005631	1846.9	005676

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GR1846.1  005735  1848.3  005762  1846.1  005790  1847.2  005815  1848.2  005950
GR1849.5    6120  1848.3    6200  1849.0    6600  1849.0    7400  1850.0    7650
GR1850.0    8000  1852.0    8280  1854.0    8900
ET              6.1                     4900    6120
NH     8.    .080    2650    .040    4000    .060    4700    .037    5370    .015
NH  5496    .037    6120    .055    7650    .080    8900
X1 9.411      58    5391.   5459.      5.      5.       5
X4       1 1848.5    3410
BT    -19    2760  1849.9  1849.9    3410  1849.0  1848.5    4000  1848.9  1848.5
BT           4250  1849.9  1847.9    5065  1849.9  1847.9    5184  1850.7  1847.9
BT           5264  1851.3  1847.9    5391  1851.4  1847.8    5459  1851.4  1847.8
BT           5559  1851.0  1847.8    5676  1851.0  1848.9    5735  1851.0  1846.1
BT           5752  1851.0  1848.3    5950  1851.1  1848.2    6200  1850.1  1848.3
BT           6600  1850.1  1849.0    7400  1850.1  1849.0    7650  1850.1  1850.0
BT           8000  1850.0  1950.0
GR1850.0     1800  1849.0    2200  1849.0    2650  1949.9    2760  1849.0    2560
GR1848.5     4000  1848.0    4150  1847.9    4250  1847.9    4700  1848.5    4900
GR1847.9  005000  1847.9  005065  1847.9  005118  1847.8  005134  1847.9  005242
GR1847.9  005264  1847.9  005306  1848.0  005352  1847.9  005370  1847.8  005391
GR1840.5    5391  1840.5    5401  1847.8    5401  1847.8    5404  1840.5    5404
GR1840.5    5415  1847.8    5415  1847.8    5418  1840.5    5418  1840.5    5429
GR1847.8    5429  1847.8    5434  1840.5    5434  1840.5    5445  1847.8    5445
GR1847.8    5448  1840.5    5448  1840.5    5459  1847.8    5459  1847.4    5535
GR1847.5  005559  1847.2  005579  1847.4  005601  1847.5  005631  1848.9  005676
GR1846.1  005735  1848.3  005762  1846.1  005790  1847.2  005815  1848.2  005950
GR1849.5    6120  1848.3    6200  1849.0    6600  1849.0    7400  1850.0    7650
GR1850.0    8000  1852.0    8280  1854.0    8900
VC              0.1     0.3
NH     5.    .090    2350    .035    4500.   .060    5000.   .015    5120.   .040
NH  8630.
ET              5.1                     5000    5100
K1   9.43      48    5020.   5097.    110.    110.    110.
X3      10                                      1851.0  1851.0
BT    -14    4400  1850.0  1850.0    5000  1851.4  1850.0    5020  1851.4  1849.1
BT           5087  1850.1  1849.1    5123  1851.0  1851.0    5400  1851.8  1851.0
BT           5500  1851.2  1850.0    5600  1851.0  1850.0    5750  1850.2  1850.0
BT           6120  1850.0  1850.0    7200  1850.1  1849.5    7450  1850.6  1850.0
BT           8150  1852.7  1852.0    8630  1854.2
GR1850.0     1500  1849.0    1750  1849.0    2250  1849.0    2250  1849.0    2250
GR1850.0     2350  1850.0    2350  1850.0    2350  1849.5    2450  1849.5    3700
GR1849.5    4000.  1850.0    4400.   1850.   5000.  1849.2    5020  1841.8    5020
GR1841.8     5029  1849.1    5029  1849.1    5034  1841.8    5034  1841.8    5043
GR1849.1     5043  1849.1    5048  1841.8    5048  1841.8    5057  1849.1    5057
GR1849.1     5064  1841.8    5064  1841.8    5073  1849.1    5073  1849.1    5078
GR1841.8     5078  1841.8    5087  1849.2    5087  1849.2    5087  1850.0    5100
GR 1850.     5100.   1851.   5120.  1851.0    5400  1850.0    5500  1850.0    5600
GR1850.0     5750  1850.0    6120  1849.5    6200  1849.5    7200  1850.0    7450
GR1852.0     8150  1854.0    8500  1854.2    8630
ET              6.1                     4470    5730
VC                      0.3     0.5
NH     5.    .090    2350    .035    4500.   .060    5000.   .025    5100.   .040
NH  8630.
X1 9.431      26    5000.   5100.      5.      5.      5.
X3      10                                      1851.0  1851.0
GR1850.0     1500  1849.0    1750  1849.0    2250  1849.0    2250  1849.0    2250
GR1850.0     2350  1850.0    2350  1850.0    2350  1849.5    2450  1849.5    3700
GR1849.5    4000.  1850.0    4400.   1850.   5000.  1841.8    5040.  1841.8   5070.
GR 1850.     5100.   1851.   5120.  1851.0    5400  1850.0    5500  1850.0    6120
GR1849.5     6200  1849.5    7200  1850.0    7450  1852.0    8150  1854.0    8500
GR1854.2     8630
ET              6.1                     7280    8300
NH     6    .080    5000    .060    6675.   .035    7300.   .060    7655.   .027
NH  7845.    .060   11250
K1   9.47      87    7655    7845     185     185     185
X3      10
X4       1 1842.3    7728
GR1852.0     4200  1851.0    4450  1850.0    4900  1850.0    4900  1850.0    4900
GR1851.6  005000  1851.4  005059  1850.7  005063  1850.9  005115  1850.4  005147
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GR1850.9	005132	1851.9	005217	1850.4	005256	1850.8	005314	1849.7	005380
GR1850.1	005445	1850.4	005631	1850.4	005694	1850.1	005770	1849.9	005861
GR1849.9	005900	1849.6	005925	1849.3	005941	1849.7	005988	1849.9	006040
GR1849.9	006037	1849.2	006171	1849.2	006214	1848.9	006298	1849.2	006340
GR1849.5	006412	1849.5	006461	1849.6	006511	1849.2	006558	1848.4	006675
GR1850.3	006715	1849.7	006735	1850.4	006804	1850.4	006862	1849.6	006928
GR1849.9	006981	1849.9	007041	1849.3	007097	1850.4	007142	1851.2	007181
GR1850.7	007250	1850.1	007276	1850.3	007300	1850.7	007318	1851.2	007345
GR1851.0	007387	1851.4	007425	1851.4	007484	1851.8	007524	1850.8	007556
GR1850.7	007591	1851.2	007622	1852.0	007655	1851.3	007680	1844.5	007702
GR1842.3	007758	1844.5	007777	1843.8	007783	1850.4	007803	1850.7	007845
GR1850.4	007893	1850.3	007955	1850.4	007996	1850.3	008065	1850.1	008129
GR1849.3	008190	1850.1	008239	1849.7	008253	1849.2	008324	1850.0	008364
GR1851.4	008384	1849.7	008418	1849.9	008453	1849.9	008512	1850.8	008521
GR1848.3	9000	1848.3	9500	1849.2	10200	1850.0	10350	1852.0	10700
GR1854.0	11030	1856.0	11250						

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     34
   6.75  Lamb Blvd - Normal Bridge routine - 1 ft debris loading
   6.75  Q500 restricted to 1:1 expansion from 6.92 to 6.16
   6.75  CL = 10000
   6.92  CL = 11370
   7.14  CL = 12260
   7.34  CL = 12370
   7.60  Owens Avenue Bridge - normal bridge routine - 2 ft debris loading
   7.60  CL = 11490
   7.68  CL = 11800
   7.97  CL = 12520
   8.19  START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
   8.19  CL = 8980
   8.27  LAKE MEAD BLVD BRIDGE
   8.27  Carey Ave Q25 breakout returns to channel
   8.27  CL = 9050
  8.271  Q25 breakout in ROB is subtracted from channel Q
   8.31  CL = 9080
   8.61  CL = 8010
   8.85  CL = 7090
   8.90  CAREY AVE BRIDGE
   8.90    Arch openings modeled as RCB's.  OK for COE flows, but for
   8.90    lower flows (not pressure flow) should change GR cards.
   8.90  CL = 10000
   8.91  CL = 10000
  8.911  Q25 reduced for LOB and ROB breakouts.  ROB returns downstream
  8.911  of Carey Ave bridge.  LOB returns at Pecos/Lake Mead.
   9.06  CL = 7310
   9.30  CL = 7270
   9.41  LAS VEGAS BLVD BRIDGE
   9.41  Q25 has boundaries from 9.41 to 9.47 limited with ET cards
   9.41  to make them consistent with location of breakouts upstream.
   9.41  CL = 15430
   9.43  CL = 15050
   9.47  CL = 7740
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - 25-YEAR
J1             2                    0.002                          1780.9
J2       1            -1                                                    15
QT     4.     6400    13000    24000    84000
ET                                      8.1                          19300
NC   .070      .080     .030      0.1      0.3
NH         9   0.130     4690    0.100    13425    0.130    14809    0.030    14942    0.035
NH   15039     0.045    16195    0.100    16755    0.045    21140    0.130    22860
K1    6.71        42    14942    15039      650      450      780
K4       2   1790.0     5200   1785.0     5600
K3      18
GR1796.0     2680   1792.0     3960   1792.0     4690   1784.0     8200   1784.8    12020
GR1784.0    13425   1780.0    14065   1780.0    14680   1777.4    14809   1777.6    14835
GR1778.5    14910   1779.0    14914   1784.8    14942   1773.0    14956   1769.3    14987
GR1769.3    14937   1769.3    15012   1771.9    15025   1784.8    15039   1781.9    15040
GR1781.9    15071   1781.0    15110   1781.3    15136   1781.2    15150   1781.2    15167
GR1780.0    15195   1782.1    15222   1782.1    15298   1781.8    15387   1779.8    15404
GR1779.8    15461   1781.6    15472   1781.0    15531   1780.0    15640   1780.0    15710
GR1782.8    16195   1782.0    16755   1784.0    21140   1784.9    21860   1788.0    22235
GR1792.0    22575   1796.0    22860
ET                                      8.1                          14050
NC                        0.3      0.5
K1    6.75      22     9928    10072      140      220      220
K3      10
GR   1790      160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5     7810     1784     8250     1784     8800     1782     8900     1782     9250
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GR   1780     9550     1785     9950     1785     9928   1771.4     9947   1770.9    10000
GR1771.4    10053     1783    10072     1783    12000   1783.5    12400   1783.5    15600
GR   1784    15900     1788    16900
ET              6.1                       8.1     9927    10073              14050
X1  6.751         32     9928    10072        5        5        5
X3     10
X4      1   1771.4    10047
BT     -4     9928     1783     1783     9947     1783     1782    10053     1783     1782
BT            10072     1783     1783
GR   1790      160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5     7800     1784     9250     1784     8900     1782     8900     1782     9250
GR   1780     9550     1780     9850     1785     9928   1771.4     9947   1770.9    10000
GR   1782     9953     1782     9957   1771.4     9957   1770.9     9998     1782     9998
GR   1752    10002   1770.9    10002   1771.4    10043     1782    10043     1782    10047
GR1771.4    10053     1783    10072     1783    12000   1783.5    12400   1783.5    15600
GR   1784    15900     1788    16900
ET              6.1                       8.1     9927    10073              14050
X1   6.76                                100      100      100                 0.2
X2                      3                                    1
X3     10
ET              6.1                       8.1     9927    10073              14050
X1  6.761         22     9928    10072      140      220      220                 0.2
X3     10
GR   1790      160     1784     1150     1784     2940     1783     6700   1783.5     7000
GR1783.5     7800     1784     9250     1784     8900     1782     8900     1782     9250
GR   1780     9550     1780     9850     1785     9928   1771.4     9947   1770.9    10000
GR1771.4    10053     1783    10072     1783    12000   1783.5    12400   1783.5    15600
GR   1784    15900     1788    16900
ET                                        8.1                              14100
X1   6.92         36    11321    11410      580      840      830
X3     10
X4      1   1790.0      900
GR1793.9      680     1788     1000     1788     2000     1787     3500     1788     4950
GR   1785     6450     1785     9200     1784     9550     1794    10200     1784    10200
GR1787.3    11000   1787.7    11145   1786.5    11169   1786.6    11200   1787.0    11289
GR1791.0    11321   1781.8    11334   1777.7    11357   1777.7    11366   1779.0    11378
GR1781.0    11406   1790.9    11410   1786.9    11426   1790.0    11437   1789.9    11504
GR1788.3    11551   1788.1    11559   1788.1    11578   1788.1    11605   1788.1    11612
GR1786.6    11622     1786    12100     1786.    12300     1788    13600     1788    16450
GR   1792    17230
ET              6.1                                11200    12370
NC                                  0.1       0.3
X1   7.14         31    12150    12369      580     1250     1200
X3     10
GR   1809      450     1791     1050     1790     1500   1789.5     2300     1788     3700
GR   1789     4600     1789     6200     1788     7200     1788    10450   1792.5    11200
GR1791.0    12000   1791.0    12114   1791.0    12150   1787.0    12224   1778.2    12259
GR1779.2    12265   1782.4    12272   1785.6    12280   1792.0    12293   1792.0    12312
GR1798.8    12369   1791.6    12391   1793.1    12412   1792.8    12524   1790.6    12729
GR1791.5    12979   1791.8    12991     1792    12970     1794    13300     1795    14000
GR   1795    16200     1796    16630     1800    16800
VH      4     .050    10980     .070    12321     .025    12437     .160    13730
X1   7.34         33    12321    12437      600     1300     1050
X3     10
GR1800.0      150   1795.0      900   1790.0     3500   1792.0     5000   1792.0     6850
GR1791.0     8600   1791.0     9500   1792.0     9600   1792.0    10000   1796.0    10980
GR1796.0    12000   1796.3    12048   1795.8    12125   1796.6    12229   1795.7    12268
GR1798.0    12321   1786.7    12343   1786.2    12358   1785.5    12371   1787.2    12411
GR1796.5    12437   1794.1    12463   1794.1    12531   1794.1    12538   1796.9    12548
GR1797.2    12571   1795.3    12600   1794.2    12626   1794.6    12642   1799.6    12656
GR1804.4    12726   1800.5    12730   1804.0    13730
NC                                  0.3       0.5
VH      6     .045     6250     .055     8000     .045     9550     .060    11410     .025
VH  11577     0.15    12410
X1   7.69         24    11410    11577     1200     1350     1360
X3     10
GR1804.0      200   1800.0      900   1798.0     1300   1796.5     1600   1796.5     3300
GR1799.5     4300   1799.0     6250   1799.5     6800   1796.0     8000   1796.0     8290
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GR1797.9    8450    1797.0    8800    1800.0    9550    1800.0    9930    1804.0    10730
GR1806.0   11200    1804.5   11280    1803.9   11410    1793.8   11441    1793.8   11546
GR1803.8   11577    1804.8   11790    1805.7   11970    1808.0   12410
ET             6.1                               11280    11790
NH       6    .045     6250     .055     8000     .045     9550     .060    11410     .025
NH   11577    0.15    12410
K1   7.601      39    11410    11577        5        5        5
K3      10
BT      -4   11410    1803.9   1803.9   11440    1803.9   1802.3   11547    1803.8   1802.3
BT           11577    1803.8   1803.8
GR1804.0      200    1800.0      600    1798.0     1300    1796.5     1600    1796.5     3300
GR1799.5     4300    1799.9     6250    1799.5     6800    1796.0     8000    1796.0     8290
GR1797.0     8450    1797.0     8800    1800.0     9550    1800.0     9930    1804.0    10730
GR1806.0   11200    1804.5   11280    1803.9   11410    1793.8   11440    1802.3   11440
GR1802.3 11443.5    1793.8 11443.5    1793.8 11474.5    1802.3 11474.5    1802.3   11478
GR1793.8   11478    1793.8   11509    1802.3   11509    1802.3 11512.5    1793.8 11512.5
GR1793.8 11543.5    1802.3 11543.5    1802.3   11547    1793.8   11547    1803.8   11577
GR1803.8   11577    1804.8   11790    1805.7   11970    1808.0   12410
ET             6.1                               11280    11790
NH       6    .045     6250     .055     8000     .045     9550     .060    11410     .025
NH   11577    0.16    12410
K1   7.610      39    11410    11577       70       70       70
K3      10
BT      -4   11410    1803.9   1803.9   11440    1803.9   1802.3   11547    1803.8   1802.3
BT           11577    1803.8   1803.8
GR1804.0      200    1800.0      600    1798.0     1300    1796.5     1600    1796.5     3300
GR1799.5     4300    1799.9     6250    1799.5     6800    1796.0     8000    1796.0     8290
GR1797.0     8450    1797.0     8800    1800.0     9550    1800.0     9930    1804.0    10730
GR1806.0   11200    1804.5   11280    1803.9   11410    1793.9   11439    1802.3   11439
GR1802.3 11444.5    1793.9 11444.5    1793.9 11473.5    1802.3 11473.5    1802.3   11479
GR1793.9   11479    1793.9   11508    1802.3   11508    1802.3 11513.5    1793.9 11513.5
GR1793.9 11542.5    1802.3 11542.5    1802.3   11547    1793.8   11547    1803.8   11577
GR1803.8   11577    1804.8   11790    1805.7   11970    1808.0   12410
ET             6.1                               11280    11790
NH       6    .045     6250     .055     8000     .045     9550     .060    11410     .025
NH   11577    0.16    12410
K1   7.611      24    11410    11577        5        5        5
K3      10
GR1804.0      200    1800.0      600    1798.0     1300    1796.5     1600    1796.5     3300
GR1799.5     4300    1799.9     6250    1799.5     6800    1796.0     8000    1796.0     8290
GR1797.0     8450    1797.0     8800    1800.0     9550    1800.0     9930    1804.0    10730
GR1806.0   11200    1804.5   11280    1803.9   11410    1793.9   11441    1793.9   11547
GR1803.8   11577    1804.8   11790    1805.7   11970    1808.0   12410
NH       6    .040     5800     .070     7700     .040    10500     .120    11640     .025
NH   11930     .15    13620
K1    7.68      32    11640    11930      290      220      280
K3      10
GR1810.0      400    1800.0     1650    1799.0     2200    1799.0     3750    1800.0     4000
GR1802.0     4450    1801.0     5800    1801.0     6800    1801.0     7700    1800.0     8070
GR1800.0     8350    1797.5     8550    1797.5     8700    1800.0     9060    1799.0     9250
GR1799.0     9400    1800.0     9610    1804.0    10500    1804.4    11000    1808.3    11640
GR1808.0   11710    1796.0   11760    1794.5   11790    1794.5   11830    1796.0   11840
GR1808.0   11870    1809.5   11930    1806.5   12200    1806.8   12470    1808.0   12570
GR1808.0   13100    1812.0   13620
ET             6.1                               12418    12669
NC                              0.1       0.3
NH       5    .040     3400     .060    12470     .025    12766     .040    13400     .160
NH   14200
K1    7.97      34    12454    12563     1750     1340     1610
K3      10
K4       2  1313.0   11000   1813.0   11700
GR1816.0      500    1812.0     1000    1810.0     1800    1810.0     2400    1813.0     3400
GR1811.0     4600    1811.0     7500    1812.0     8500    1810.0     9450    1810.0    10000
GR1815.2    12000    1816.6    12227    1815.6    12313    1813.6    12367    1815.1    12418
GR1812.8    12442    1812.9    12454    1812.0    12470    1806.5    12503    1806.0    12515
GR1806.0    12526    1806.7    12540    1808.3    12561    1812.4    12563    1813.7    12597
GR1814.5    12669    1813.0    12701    1814.0    12736    1815.0    12756    1816.0    12766
GR1816.7    12794    1815.0    13250    1816.0    13400    1816.0    14200
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NH      5     .140     3800     .060     7800     .050     8941     .050     9014     .050
NH   9204    0.14    11140
X1   8.19       39     9941     9014     1110      930     1140
X3     10
GR1823.0      300   1817.0     1200   1316.0     2500   1820.0     3800   1818.0     4980
GR1819.0     5410   1816.0     7030   1820.0     7800   1820.0     8000   1820.0     8000
GR1819.2     8000   1819.6     9169   1819.4     8408   1820.1     8794   1820.5     8849
GR1821.5     8875   1820.3     8921   1822.6     8927   1823.9     8941   1812.5     8952
GR1810.6     8975   1810.6     8988   1313.2     9001   1814.1     9010   1823.9     9014
GR1820.9     9040   1823.5     9062   1826.7     9084   1826.3     9115   1820.8     9150
GR1819.5     9153   1821.5     9204   1822.0     9255   1823.0     9550   1823.0    10300
GR1823.0    10530   1824.0    10650   1824.0    10940   1824.5    11140
ST           1     6260
NH      5     .040     4430     .060     9006     .025     9094     .030     9400     0.14
NH  10560
X1   8.27       23     9006.    9094.      350      300      330
X3     10                                                  1825.0   1825.0
X4      3   1821.0     8000   1823.0     8650   1823.0     8850
GR1824.0      600   1820.0     1300   1819.0     2400   1820.0     3200   1824.0     4000
GR1822.0     4430   1819.5     5200   1821.0     5850   1819.5     6770   1819.5     7400
GR 1824.    9000.    1824.    9006.   1314.0     9018.   1813.7    9050.   1814.0    9082.
GR1822.2    9094.    1823.    9100.   1823.0     9290   1824.0     9400   1824.5     9500
GR1825.0    10050   1825.0    10450   1826.0    10560
ST           1     5380
NC                                .3       0.5
NH      5     .040     4430     .060     9006     .015     9095     .030     9400     0.14
NH  10560
X1  8.271       48    9017.    9095.        5        5        5
X3     10                                                  1825.0   1825.0
X4      3   1821.0     8000   1823.0     8650   1823.0     8850
BT     -4     9006   1824.0                9017   1824.1   1821.7     9025   1823.2   1821.7
BT           9095   1823.2   1821.7
GR1824.0      600   1820.0     1300   1319.0     2400   1820.0     3200   1824.0     4000
GR1822.0     4430   1819.5     5200   1821.0     5950   1819.5     6770   1819.5     7400
GR 1824.    9000.    1824.    9006.   1824.0     9017   1813.7    9017.0  1813.7     9025
GR1821.7    9028.3   1813.7   9028.3   1813.7   9034.3   1821.7   9034.3   1821.7   9037.6
GR1813.7    9037.6   1813.7   9043.6   1821.7   9043.6   1821.7   9047.2   1813.7   9047.2
GR1813.7    9057.2   1821.7   9057.2   1821.7     9060   1813.7     9060   1813.7     9070
GR1821.7     9070   1921.7     9073   1813.7     9073   1813.7     9083   1821.7     9083
GR1821.7    9086.6   1813.7   9086.6   1813.7   9095.0   1823.2     9095   1823.2     9095
GR1822.2    9096.    1823.    9100.    1823.0     9290   1824.0     9400   1824.5     9500
GR1825.0    10050   1825.0    10450   1826.0    10560
ST           6.1                                8940     9140
NC   .055    0.14     .015      0.1      0.3
X1   8.31       48.    9040.    9116.     235.     235.     235.
X2
X3     10
X4      1   1824.0     8280
BT     -5     3940   1824.0                9040   1824.1   1822.0     9046   1823.2   1822.0
BT          9116.0   1824.1   1822.0     9120   1824.0
GR1826.5      800   1822.0     1200   1822.0     2400   1823.0     3200   1823.0     3200
GR1824.0     4000   1823.8     5950   1823.5     6050   1821.0     6770   1822.0     7800
GR 1826.    8900.    1826.    8940   1824.1     9040   1814.0    9040.0  1814.0     9046
GR1822.0     9046   1822.0   9051.3   1814.0   9051.3   1814.0   9055.3   1822.0   9055.3
GR1822.0    9060.6   1814.0   9060.6   1814.0   9064.6   1822.0   9064.6   1822.0   9070.2
GR1814.0    9070.2   1814.0   9078.2   1822.0   9078.2   1822.0   9083.0   1814.0     9083
GR1814.0     9091   1822.0     9091   1822.0     9096   1814.0     9096   1814.0     9104
GR1822.0     9104   1822.0   9109.6   1814.0   9109.6   1814.0   9116.0   1824.0     9116
GR1824.0    9120.    1826.    9140.    1824.    9148.   1823.6     9270   1823.6     9580
GR1824.0     9770   1826.0    10130   1826.0    11780
ST           1     5520
ST           6.1                                8900     9270
NC   .055    0.14     .025      0.3      0.5
X1  9.311       23.    9014.    9140.       5.       5.       5.
X3     10
X4      1   1824.0     8280
GR1826.5      800   1822.0     1200   1822.0     2400   1823.0     3200   1823.0     3200
GR1824.0     4000   1823.8     5950   1823.5     6050   1821.0     6770   1822.0     7800
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GR 1826.    3990.    1826.    8940    1824.1    9014.    1814.5    9034.    1814.    9075.
GR1814.5    9120.    1824.    9140.    1924.    9148.    1823.6    9270    1823.6    9580
GR1824.0    9770    1826.0    10130    1926.0    11780
MC                      0.1              0.3
NH       7    .040    2020    .060    3700    0.16    5380    .040    7000    0.16
NH    7863    .025    9094    0.16    11250
X1    8.61      39.    7923.    8094.    1570.    1370.    1560.
X3      10
X4       3    1830.5    2900    1830.0    7400    1832.0    7700
GR1832.0       0    1830.0     250    1829.0    2020    1829.0    3700    1829.0    5380
GR1831.0    5970    1827.0    6250    1827.0    6730    1830.0    6880    1825.1    7000
GR1833.1    007741    1833.1    007741    1833.1    007741    1833.1    007741    1833.1    007741
GR1832.7    007754    1830.2    007793    1830.2    007836    1832.8    007863    1832.6    007923
GR1829.9    007952    1822.7    007970    1818.9    008025    1820.1    008039    1822.1    008062
GR1830.3    008077    1832.3    008094    1832.3    008135    1832.4    008173    1832.0    8180
GR1832.0    8710    1832.0    9180    1832.0    9230    1832.0    10070    1832.4    10360
GR1833.0    10500    1834.0    10750    1834.0    11100    1836.0    11250
NH       4    .040    1700    0.16    7007    .025    7188    0.16    11180
X1    8.85      49    7007.    7188.    1370.    1200.    1250.
X3      10                                                          1837.0
X4       1    1836.0    4180
GR1840.0       0    1837.0     250    1837.0    1700    1837.0    2550    1840.0    3730
GR1837.0    4900    1833.3    005000    1834.2    005102    1833.9    005248    1834.6    005315
GR1833.9    005362    1834.0    005458    1834.2    005626    1834.0    005773    1833.5    005856
GR1833.7    005977    1834.6    006004    1834.8    006111    1833.7    006220    1837.7    6395
GR1837.7    006554    1838.1    006637    1838.8    006858    1839.4    006879    1837.9    006900
GR1837.2    006953    1837.0    006981    1837.6    007007    1834.4    007013    1833.0    007025
GR1827.3    007031    1825.1    007044    1824.4    007064    1824.4    007099    1826.2    007119
GR1825.9    007122    1833.5    007134    1835.6    007142    1837.7    007163    1837.8    007188
GR1837.8    7250    1838.0    7420    1838.0    8170    1835.5    8550    1835.7    9570
GR1838.0    10080    1840.0    10450    1842.0    10870    1844    11180
BT       1    5450
MC                      0.3              0.5
NH       6    .040    4500    0.16    9100    .080    9910    .025    10070    0.16
NH   11770    0.12    13920
X1    8.90      35    9910.    10070.    170.    360.    230.
X3      10                                                  1837.8    1838.0
X4       2    1840.0    2900    1836.5    6980
GR1843.0       2650    1837.5    3050    1837.5    4500    1837.5    5350    1841.0    6530
GR1839.0       7700    1837.0    7800    1836.0    7880    1836.0    8140    1835.9    8550
GR1835.2       8850    1836.5    9100    1837.6    9340    1837.5    9870    1837.8    9890
GR1837.8       9910    1826.0    9950    1825.2    9955    1825.2    10020    1826.0    10025
GR1838.0    10070    1838.0    10270    1839.1    10430    1838.0    10800    1837.    11000.
GR1837.0    11770    1838.0    11940    1836.0    12530    1838.0    12810    1840.0    12870
GR1840.0    13200    1842.0    13250    1844.0    13580    1844.0    13900    1846.0    13920
NH       6    .040    4500    0.16    9100    .080    9910    .015    10070    0.16
NH   11770    0.12    13920
X1  8.901      50    9950.    10019.      5.      5.      5.
X3      10                                                  1837.8    1838.0
X4       3    1840.0    2900    1836.5    6980    1838.0    10070
BT      -7    9890    1837.8              9910    1838.1              9950    1838.5    1832.4
BT            9938    1838.7    1832.4    10019    1838.5    1832.4    10070    1838.2
BT           10270    1838.0
GR1843.0       2650    1837.5    3050    1837.5    4500    1837.5    5350    1841.0    6530
GR1839.0       7700    1837.0    7800    1836.0    7880    1836.0    8140    1835.9    8550
GR1835.2       8850    1836.5    9100    1837.6    9340    1837.5    9870    1837.8    9890
GR1837.8       9910    1837.8    9950    1825.2    9950    1825.2    9959    1832.4    9959
GR1832.4       9964    1825.2    9964    1825.2    9974    1832.4    9974    1832.4    9979
GR1825.2       9979    1825.2    9989    1832.4    9989    1832.4    9994    1825.2    9994
GR1825.2    10004    1832.4    10004    1832.4    10009    1825.2    10009    1825.2    10019
GR1838.0    10019    1838.0    10279    1839.1    10430    1838.0    10800    1837.    11000.
GR1837.0    11770    1838.0    11940    1838.0    12530    1838.0    12810    1840.0    12870
GR1840.0    13200    1842.0    13250    1844.0    13580    1844.0    13900    1846.0    13920
BT            6.1                                 9890    10430
NH       5    .040    4500    0.16    9100    .080    9910    .015    10070    0.16
NH   11770    0.12    13920
X1    8.91      50    9950.    10018.      70.      70.      70.
X2
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S      10                                                    1838.1    1838.1
X4         3  1840.0      2800    1836.5      6980    1838.0    10070
BT        -7     9890    1837.8                9910    1838.1                9950    1838.5    1832.8
BT             9988    1838.7    1832.8     10018    1838.5    1832.8    10070    1839.2
BT            10270    1838.0
GR1843.0       2650    1837.5      3050    1837.5      4500    1837.5      5350    1841.0      6530
GR1839.0       7700    1837.0      7800    1836.0      7880    1836.0      8140    1835.9      8550
GR1835.2       8850    1836.5      9100    1837.6      9340    1837.5      9870    1837.8      9890
GR1837.8       9910    1837.8      9950    1825.6      9950    1825.6      9958    1832.8      9958
GR1832.8       9965    1825.6      9965    1825.6      9973    1832.8      9973    1832.8      9980
GR1825.6       9980    1825.6      9988    1832.8      9988    1832.8      9995    1825.6      9995
GR1825.6      10003    1832.8     10003    1832.8     10010    1825.6     10010    1825.6     10018
GR1838.0      10018    1838.0     10270    1839.1     10430    1838.0     10800    1837.      11000.
GR1837.0      11770    1838.0     11940    1838.0     12530    1838.0     12810    1840.0     12870
GR1840.0      13200    1842.0     13250    1844.0     13580    1844.0     13900    1846.0     13920
DT         1   5520
ET             6.1                                     9910    10900
NC                                  0.3       0.5
NH         5    .040      4500     0.16      9100     .080      9910     .025     10070     0.16
NH     11770    0.12     13920
K1   8.911       35     9945.    10025.       5.        5.        5.
K3        10                                                    1838.1    1838.1
X4         2  1840.0      2800    1836.5      5980
GR1843.0       2650    1837.5      3050    1837.5      4500    1837.5      5350    1841.0      6530
GR1839.0       7700    1837.0      7800    1836.0      7880    1836.0      8140    1835.9      8550
GR1835.2       8850    1836.5      9100    1837.6      9340    1837.5      9870    1837.8      9890
GR1837.8       9910    1828.0      9945    1825.6      9960    1825.6     10015    1828.0     10025
GR1838.0      10070    1838.0     10270    1839.1     10430    1838.0     10800    1837.      11000.
GR1837.0      11770    1838.0     11940    1838.0     12530    1838.0     12810    1840.0     12870
GR1840.0      13200    1842.0     13250    1844.0     13580    1844.0     13900    1846.0     13920
DT         1   6400
ET             6.1                                     7186      7361
NH         5    .040      2000     0.16      7219     .025      7349     0.16      8360     .11
NH     10960
K1   9.06        32.     7219.    7349.      650.      830.      920.
GR1845.0       500    1840.0      1400    1840.0      2000    1841.0      2800    1844.0      4450
GR1841.0      4800    1842.5      4950    1840.9      5000    1840.0      5350    1840.0      7110
GR1842.3   007186    1840.5   007219    1840.7   007238    1833.3   007255    1828.1   007301
GR1832.1   007328    1841.1   007349    1841.9   007361    1840.3   007375    1840.7   007406
GR1840.3   007451    1840.0      7670    1840.0      8360    1841.0      8750    1841.2      9140
GR1842.0      9180    1842.5      9450    1843.1      9900    1844.0     10100    1846.0     10510
GR1846.0     10700    1846.5     10960
NC                                  0.1       0.3
NH         9    .040      4000     0.16      4850     .035      5750     0.13      6630     .030
NH    7212    .026      7447     .036      7909     .050      8700     0.16     11320
ET             6.1                                     6990      7900
K1   9.30        39     7212     7447      1040     1070      1250
K3        10                                          7900    1846.0
X4         1  1850.0      1150
GR1852.0       1000    1845.0      1880    1844.0      3080    1845.0      4000    1846.0      4700
GR1848.0       4850    1846.8      4950    1846.0      5000    1846.0      5300    1845.7      5430
GR1846.2       5750    1843.5      6150    1847.0      6990    1847.0      7152    1847.1      7212
GR1837.8   007232    1835.2   007252    1834.4   007263    1837.8   007291    1842.1   007307
GR1841.4       7327    1840.4      7346    1840.9      7376    1841.2      7390    1840.2      7407
GR1843.8       7422    1844.7      7447    1843.4      7468    1845.5      7840    1846.0      7900
GR1845.5       7930    1845.5      8700    1845.5      9520    1846.0      9760    1848.0     10000
GR1850.0      10400    1850.0     11080    1851.3     11150    1852.0     11320
ET             6.1                                    14400     16400
NC                                  0.3       0.5
NH         6.    .030     12650     .040     14000     .060     14700     .037     15370     .025
NH    15496    .037     16120     .055     17650     .080     18900
K1   9.41        43     15370.   15496.      340.      330.      570.
K3        10                                                    1849.8    1850.1
X4         3  1850.0      9700    1850.0     11800    1848.5     13410
GR1853.0       9200    1849.0     12200    1849.0     12650    1849.9     12760    1849.0     12960
GR1848.5      14000    1848.0     14150    1847.9     14250    1847.9     14700    1849.5     14900
GR1847.9   015000    1847.9   015065    1847.9   015118    1847.8   015134    1847.9   015242
GR1847.9   015264    1847.9   015306    1848.0   015352    1847.9   015370    1840.5   015389
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GR1840.5   015417   1845.5   015461   1845.4   015480   1846.5   015496   1847.4   015535
GR1847.5   015559   1847.2   015579   1847.4   015601   1847.5   015631   1848.9   015676
GR1846.1   015735   1848.3   015762   1846.1   015790   1847.2   015815   1848.2   015950
GR1849.5    16120   1849.3    16200   1849.0    16600   1849.0    17400   1850.0    17650
GR1850.0    18000   1852.0    19280   1854.0    18900
ET             6.1                               14400    16400
NH      8.    .030    12650     .040    14000     .060    14700     .037    15370     .015
NH  15496     .037    16120     .055    17650     .080    18900
X1  9.411       58   15391.   15459.       5.       5.        5
X3     10                                                1849.8   1850.1
X4      3   1850.0     9800   1850.0    11800   1850.5    12700   1849.9    13410
BT    -11    15000   1849.9   1847.9   15065   1849.9   1847.9    15134   1850.7   1847.9
BT           15264   1851.3   1847.9   15391   1851.4   1847.8    15459   1851.4   1847.8
BT           15559   1851.0   1847.5   15676   1851.0   1848.9    15735   1851.0   1846.1
BT           15762   1851.0   1848.3   15950   1851.1   1848.2
GR1860.0      8700   1850.0    12200   1850.0    12650   1849.9    12760   1849.9    12960
GR1848.5     14000   1848.9    14150   1849.9    14250   1849.9    14700   1849.9    14900
GR1847.9    015000   1847.9   015065   1847.9   015118   1847.8   015184   1847.9   015242
GR1847.9    015264   1847.9   015306   1848.0   015352   1847.9   015370   1847.8   015391
GR1840.5     15391   1840.5    15401   1847.3    15401   1847.8    15404   1840.5    15404
GR1840.5     15415   1847.8    15415   1847.8    15418   1840.5    15418   1840.5    15429
GR1847.8     15429   1847.8    15434   1840.5    15434   1840.5    15445   1847.8    15445
GR1847.3     15448   1840.5    15448   1840.5    15459   1847.8    15459   1847.4    15535
GR1847.5    015559   1847.2   015579   1847.4   015601   1847.5   015631   1848.9   015676
GR1846.1    015735   1848.3   015762   1846.1   015790   1847.2   015815   1848.2   015950
GR1849.5     16120   1850.1    16200   1850.1    16600   1850.1    17400   1850.1    17650
GR1850.0     18000   1852.0    18280   1854.0    18900
ET             6.1                               14100    15900
NH      5.    .090    12350     .035    14500.    .060    15000.    .015    15120.    .040
NH18630.
X1  9.43        48   15020.   15087.     110.     110.     110.
X3     10                                                1849.0   1850.1
X4      7   1850.0     9400   1850.0    11150   1849.9    13820   1849.8    14500   1849.9
X4  14680   1850.7    14750   1851.3    14880
BT    -10    15000   1851.4   1850.3   15000   1851.4   1850.0    15020   1851.4   1849.1
BT           15037   1850.1   1849.1   15120   1851.0   1851.0    15400   1851.8   1851.0
BT           15500   1851.2   1850.9   15600   1851.0   1850.0    15750   1850.2   1850.0
BT           16120   1850.0   1850.0
GR1860.0      8300   1850.0    11760   1850.0    12250   1850.0    12250   1850.0    12250
GR1850.0     12350   1850.0    12350   1850.0    12970   1850.0    13000   1849.2    13300
GR1851.4    15000.   1851.4   15000.   1851.4   15000.   1849.2    15020   1841.8    15020
GR1841.8     15029   1849.1    15029   1849.1    15034   1841.8    15034   1841.8    15043
GR1849.1     15043   1849.1    15048   1841.8    15048   1841.8    15057   1849.1    15057
GR1849.1     15064   1841.8    15064   1841.3    15073   1849.1    15073   1849.1    15078
GR1841.8     15078   1841.8    15087   1849.2    15087   1849.2    15087   1850.0    15100
GR 1850.    15100.    1851.   15120.   1851.0    15400   1850.0    15500   1850.0    15600
GR1850.2     15750   1850.1    16120   1850.1    16200   1850.1    17200   1850.8    17450
GR1851.0     17700   1852.2    17950   1852.7    18250   1854.1    18370   1855.2    18630
ET             6.1                               14100    15900
NC                                0.3      0.5
NH      5.    .090    12350     .035    14500.    .060    15000.    .025    15100.    .040
NH18630.
X1  9.431       31   15000.   15100.       5.       5.       5.
X3     10                                                1849.8   1850.1
GR1860.0      8300   1850.0     9400   1850.0     9400   1850.0     9400   1850.0     9400
GR1850.0     11500   1849.0    11750   1849.0    12250   1849.0    12250   1849.0    12250
GR1850.0     12350   1850.0    12350   1850.0    12350   1849.5    12450   1849.5    13700
GR1849.5    14000.   1850.0   14400.    1850.   15000.   1841.8   15040.   1841.8   15070.
GR 1850.    15100.    1851.   15120.   1851.0    15400   1850.0    15500   1850.0    16120
GR1849.5     16200   1849.5    17200   1850.0    17450   1852.0    18150   1854.0    18500
GR1854.2     18630
ET             6.1                                7280     8300
NH      6     .080     5000     .060     5675.    .035     7300.    .060     7655.    .027
NH 7845.      .060    11250
X1  9.47        87     7655     7845      185      185      185
X3     10
X4      1   1842.3     7728
GR1852.0      4200   1851.0     4459   1850.0     4900   1850.0     4900   1850.0     4900
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GR1851.6  005000  1851.4  005059  1850.7  005065  1850.9  005115  1850.4  005147
GR1850.9  005182  1851.0  005217  1850.4  005256  1850.8  005304  1849.7  005380
GR1850.1  005446  1850.4  005621  1850.4  005694  1850.1  005790  1849.9  005861
GR1849.9  005900  1849.6  005925  1849.3  005941  1849.7  005988  1849.9  006040
GR1849.9  006087  1849.2  006171  1849.2  006214  1848.9  006298  1849.2  006340
GR1849.5  006412  1849.5  006481  1849.6  006511  1849.2  006568  1848.4  006675
GR1850.3  006715  1849.7  006735  1850.4  006804  1850.4  006862  1849.6  006928
GR1849.9  006991  1849.9  007041  1849.9  007097  1850.4  007142  1851.2  007181
GR1850.7  007250  1850.1  007276  1850.3  007300  1850.7  007318  1851.2  007345
GR1851.0  007337  1851.4  007425  1851.4  007484  1851.8  007524  1850.5  007556
GR1850.7  007591  1851.2  007622  1852.0  007655  1851.3  007680  1844.5  007702
GR1842.3  007758  1844.6  007777  1843.8  007783  1850.4  007803  1850.7  007845
GR1850.4  007893  1850.3  007955  1850.4  007996  1850.3  008065  1850.1  008129
GR1849.3  008190  1850.1  008239  1849.7  008253  1849.2  008324  1850.0  008364
GR1851.4  008384  1849.7  008418  1849.9  008453  1849.9  008512  1850.8  008521
GR1848.3    9000  1848.3    9500  1849.2   10200  1850.0   10350  1852.0   10700
GR1854.0   11030  1856.0   11250
EJ
T1       COREOD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGF
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - 500-YEAR
J1                 5                                          1785.3
J2    15               -1                                              15


ER
EOF..
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1**************************************************
 *  WATER SURFACE PROFILES                        *
 *  VERSION OF NOVEMBER 1976                      *
 *  UPDATED AUGUST 1983                           *
 *                                                *
 *  RUN DATE   5-MAY-88 TIME   16:15:16           *
 **************************************************
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 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  THE HYDROLOGIC ENGINEERING CENTER  *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616            *
 *  (916) 440-2105 (FTS) 448-2105      *
 ***************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

C
T1      CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3      LVW LEFT OVERBANK BREAKOUT - LM TO LVB          50-YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
        0.       3.        0.        0.  0.000000      0.00      0.0       0.  1788.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      4.000     0.000  2870.000 23540.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     8.100     8.100     8.100     8.100  6200.000 11320.000  6200.000 11437.000     0.000
NC      0.070     0.070     0.070     0.100     0.300     0.000     0.000     0.000     0.000     0.000
          Model of 050 and 0100 breakouts in left overbank between Lamb Blvd
          and Lake Mead Blvd.  Use truncated xsecs from full HEC-2 model.
          Add 10.0 to xsec numbers from full model.
          Start at x-6.92 with full 0100 flow, and floodplain in LOB
          encroached to reasonable expansion limits.  050 overbank flow does
          not return to channel here; keep separate.  Use ET cards for
          x-6.92 to x-17.97 to set approx 1:1 expansion limits.
          Flows come from R4_MID_SF.out; split flow run for main channel.
X1      6.920    36.000 11321.000 11410.000   580.000   840.000   830.000     0.000     0.000     0.000
X4      1.000  1790.000   900.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1793.000   680.000  1798.000  1000.000  1788.000  2000.000  1787.000  3500.000  1788.000  4850.000
GR   1785.000  6450.000  1785.000  9200.000  1784.000  9550.000  1784.000 10200.000  1784.000 10200.000
GR   1787.300 11000.000  1787.700 11145.000  1786.500 11169.000  1786.600 11200.000  1787.000 11285.000
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GR	1791.300	11321.000	1781.800	11334.000	1777.700	11357.000	1777.700	11366.000	1779.000	11378.000
GR	1781.300	11406.000	1790.900	11410.000	1786.900	11426.000	1790.000	11437.000	1789.900	11504.000
GR	1788.300	11551.000	1788.100	11559.000	1788.100	11578.000	1788.100	11605.000	1788.100	11612.000
GR	1788.500	11622.000	1796.000	12100.000	1786.000	12300.000	1788.000	13600.000	1788.000	16450.000
GR	1792.300	17230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.300	0.000	2970.000	11930.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	8.100	8.100	0.000	0.000	0.000	6200.000	0.000	0.000
X1	17.140	14.000	7100.000	7200.000	580.000	580.000	580.000	0.000	0.000	0.000
GR	1800.300	450.000	1751.000	1050.000	1790.000	1500.000	1789.500	2300.000	1788.000	3700.000
GR	1789.300	4600.000	1789.000	6200.000	1788.000	7100.000	1788.000	7200.000	1788.000	10450.000
GR	1792.500	11200.000	1791.000	12000.000	1791.000	12114.000	1791.000	12150.000	0.000	0.000

ET	0.300	0.000	8.100	8.100	0.000	0.000	0.000	6850.000	0.000	0.000
X1	17.340	16.000	9600.000	8700.000	600.000	600.000	600.000	0.000	0.000	0.000
X4	2.300	1792.000	7300.000	1792.000	9600.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	150.000	1795.000	900.000	1792.000	3500.000	1792.000	5000.000	1792.200	6850.000
GR	1791.000	8600.000	1791.000	8700.000	1791.000	9600.000	1792.000	10000.000	1796.000	10580.000
GR	1796.300	12000.000	1796.300	12048.000	1795.800	12125.000	1796.600	12229.000	1795.700	12268.000
GR	1798.300	12321.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	0.000	8.100	8.100	0.000	0.000	0.000	6800.000	0.000	0.000
X1	17.500	13.000	9000.000	8290.000	1200.000	1200.000	1200.000	0.000	0.000	0.000
GR	1799.500	4300.000	1799.000	6250.000	1800.000	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.300	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	0.000	0.000	0.000	0.000
ET	0.300	0.000	8.100	8.100	0.000	0.000	0.000	7300.000	0.000	0.000
X1	17.680	15.000	9550.000	8700.000	370.000	370.000	370.000	0.000	0.000	0.000
GR	1802.300	4450.000	1801.000	5800.000	1801.500	7300.000	1801.000	7700.000	1800.000	8070.000
GR	1800.300	8350.000	1797.500	8550.000	1797.500	9700.000	1800.000	9060.000	1799.000	9250.000
GR	1799.300	9400.000	1800.000	9610.000	1804.000	10500.000	1804.400	11000.000	1808.300	11640.000
QT	4.300	0.000	2940.000	11470.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	8.100	8.100	0.000	0.000	0.000	8500.000	0.000	0.000
X1	17.970	12.000	9450.000	9500.000	1750.000	1750.000	1750.000	0.000	0.000	0.000
X4	1.000	1810.000	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1812.300	4600.000	1812.000	7500.000	1812.000	9500.000	1810.000	9450.000	1810.000	9500.000
GR	1815.200	12000.000	1816.600	12227.000	1815.600	12313.300	1813.600	12367.000	1815.100	12418.000
GR	1812.300	12442.000	1812.900	12454.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.190	14.000	7030.000	7100.000	1110.000	1110.000	1110.000	0.000	0.000	0.000
X4	3.300	1818.000	4920.000	1819.000	5310.000	1820.000	7800.000	0.000	0.000	0.000
GR	1820.000	3900.000	1816.000	7030.000	1816.000	7100.000	1820.000	8000.000	1820.000	8000.000
GR	1819.200	8000.000	1819.600	8169.000	1819.400	8408.000	1820.100	8794.000	1820.500	8849.000
GR	1821.500	8875.000	1820.300	8921.000	1822.600	8927.000	1823.900	8941.000	0.000	0.000
QT	4.000	0.000	2570.000	9720.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.270	8.000	6770.000	6800.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	1822.300	4430.000	1822.000	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	6800.000
GR	1819.500	7400.000	1824.000	9000.000	1824.000	9006.000	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.310	9.000	6770.000	6800.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	1824.300	4000.000	1823.800	5950.000	1823.500	6050.000	1821.000	6770.000	1821.000	6800.000
GR	1822.300	7800.000	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	0.000	0.000
NC	0.040	0.160	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.300	0.000	2280.000	6410.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.510	5.000	2020.000	3700.000	1500.000	1400.000	1450.000	0.000	0.000	0.000
X4	1.000	1830.500	2900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1832.300	0.000	1930.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.300	5970.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	18.350	6.000	1700.000	2550.000	1500.000	1500.000	1500.000	0.000	0.000	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	0.000	2280.000	4850.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.910	6.000	3050.000	4500.000	260.000	200.000	250.000	0.000	0.000	0.000
X4	2.000	1640.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19.060	7.000	1400.000	2000.000	520.000	520.000	520.000	0.000	0.000	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2000.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.300	6.000	1880.000	3080.000	700.000	850.000	800.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	1000.000	1845.000	1880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1848.000	4850.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	0.080	2650.000	0.040	4000.000	0.060	4900.000	0.000	0.000	0.000
X1	9.410	10.000	4250.000	4700.000	600.000	600.000	600.000	0.000	0.000	0.000
X4	3.000	1850.000	-300.000	1850.000	1800.000	1848.500	3410.000	0.000	0.000	0.000
GR	1853.000	-800.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
QT	4.000	0.000	13000.000	24000.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	2700.000	6120.000	0.000	0.000	0.000
NH	8.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.015
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	8900.000	0.000	0.000	0.000
X1	9.411	58.000	5391.000	5459.000	5.000	5.000	5.000	0.000	0.000	0.000
X4	2.000	1850.500	2700.000	1848.500	3410.000	0.000	0.000	0.000	0.000	0.000
BT	-19.000	2760.000	1849.900	1849.900	3410.000	1849.000	1848.500	4000.000	1848.900	1848.500
BT	0.000	4250.000	1849.900	1847.900	5065.000	1849.900	1847.900	5184.000	1850.700	1847.900
BT	0.000	5264.000	1851.300	1847.900	5391.000	1851.400	1847.800	5459.000	1851.400	1847.800
BT	0.000	5559.000	1851.000	1847.500	5676.000	1851.000	1848.900	5735.000	1851.000	1846.100
BT	0.000	5762.000	1851.000	1848.300	5950.000	1851.100	1848.200	6200.000	1850.100	1848.300
BT	0.000	6600.000	1850.100	1849.000	7400.000	1850.100	1849.000	7650.000	1850.100	1850.000
BT	0.000	8000.000	1850.000	1850.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1850.000	1800.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000
GR	1847.900	5264.000	1847.900	5306.000	1848.000	5352.000	1847.900	5370.000	1847.800	5391.000
GR	1840.500	5391.000	1840.500	5401.000	1847.800	5401.000	1847.800	5404.000	1840.500	5404.000
GR	1840.500	5415.000	1847.800	5415.000	1847.800	5418.000	1840.500	5418.000	1840.500	5429.000
GR	1847.300	5429.000	1847.800	5434.000	1840.500	5434.000	1840.500	5445.000	1847.800	5445.000
GR	1847.800	5448.000	1840.500	5448.000	1840.500	5459.000	1847.800	5459.000	1847.400	5535.000
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1850.000	7650.000
GR	1850.000	8000.000	1952.000	8280.000	1854.000	8900.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID ENDST

*PROF 1

CCHV= 0.10 CEHV= 0.30
*SECNO 6.920

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 6200.0 11437.0 TYPE= 1 TARGET= 5237.000
Model of Q50 and Q100 breakouts in left overbank between Lamb Blvd
and Lake Mead Blvd. Use truncated xsecs from full HEC-2 model.
Add 10.0 to xsec numbers from full model.
Start at x-6.92 with full Q100 flow, and floodplain in LOB
encroached to reasonable expansion limits. Q50 overbank flow does
not return to channel here; keep separate. Use ET cards for
x-6.92 to x-17.97 to set approx 1:1 expansion limits.
Flows come from R4_MID_SF.out; split flow run for main channel.

6.92	10.30	1789.00	0.00	0.00	1788.00	0.00	0.00	0.00	1791.00
2870.	2661.	209.	0.	14896.	659.	5.	0.	0.	1790.90
0.00	0.18	0.32	0.05	0.070	0.070	0.070	0.000	1777.70	6200.00
0.000016	580.	830.	840.	0	0	0	0.00	5188.89	11429.90

*SECNO 17.140

3235 SLOPE TOO STEEP,EXCEEDS 0.10

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 6200.0 12150.0 TYPE= 1 TARGET= -6200.000

17.14	0.28	1788.28	1788.28	0.00	1788.41	0.14	0.04	0.04	1788.00
2870.	66.	83.	2721.	35.	28.	914.	110.	59.	1788.00
0.05	1.88	2.99	2.98	0.070	0.070	0.070	0.000	1788.00	6848.74
0.108388	580.	580.	580.	20	26	0	0.00	3647.79	10496.53

*SECNO 17.340

3470 ENCROACHMENT STATIONS= 6850.0 12321.0 TYPE= 1 TARGET= -6850.000

17.34	1.38	1792.38	0.00	0.00	1792.40	0.02	3.97	0.01	1791.00
2870.	1095.	169.	1606.	1275.	138.	1416.	136.	106.	1791.00
0.22	0.86	1.22	1.13	0.070	0.070	0.070	0.000	1791.00	6850.00
0.002152	600.	600.	600.	10	0	0	0.00	3243.95	10093.95

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 17.600

3470 ENCROACHMENT STATIONS= 6800.0 11410.0 TYPE= 1 TARGET= -6800.000

17.60	1.53	1797.53	0.10	0.00	1797.64	0.11	5.22	0.03	1796.00
2870.	710.	1425.	735.	351.	444.	385.	192.	170.	1796.00
0.34	2.02	3.21	1.91	0.070	0.070	0.070	0.000	1796.00	7541.03
0.012979	1200.	1200.	1200.	8	0	0	0.00	1391.45	8932.48

*SECNO 17.680

3470 ENCROACHMENT STATIONS= 7300.0 11640.0 TYPE= 1 TARGET= -7300.000

17.68	2.62	1800.12	0.00	0.00	1800.18	0.06	2.54	0.00	1797.50
2870.	483.	1035.	1352.	314.	394.	917.	203.	183.	1797.50
0.40	1.54	2.63	1.47	0.070	0.070	0.070	0.000	1797.50	8023.30
0.004228	370.	370.	370.	3	0	0	0.00	1614.79	9638.08

*SECNO 17.970

3470 ENCROACHMENT STATIONS= 8501.0 12454.0 TYPE= 1 TARGET= -8500.000

17.97	1.64	1811.64	0.00	0.00	1811.71	0.07	11.53	0.00	1810.00
2840.	1281.	262.	1297.	637.	82.	641.	263.	248.	1810.00
0.63	2.01	3.19	2.01	0.070	0.070	0.070	0.000	1810.00	8672.15
0.011730	1750.	1750.	1750.	6	0	0	0.00	1615.15	10287.30

*SECNO 18.190

3265 DIVIDED FLOW

18.19	2.39	1818.39	0.00	0.00	1818.43	0.04	6.71	0.00	1816.00
2840.	1731.	395.	724.	1271.	167.	500.	306.	294.	1816.00
0.83	1.36	2.30	1.45	0.070	0.070	0.070	0.000	1816.00	4701.93
0.003680	1110.	1110.	1110.	5	0	0	0.00	2024.47	7518.15

*SECNO 18.270

18.27	1.04	1820.54	0.00	0.00	1820.62	0.08	2.16	0.01	1819.50
2570.	547.	81.	1942.	335.	31.	822.	318.	305.	1819.50
0.88	1.63	2.59	2.35	0.070	0.070	0.070	0.000	1819.50	6128.52
0.014007	350.	350.	350.	3	0	0	0.00	1643.36	7771.88

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROP	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 18.310

18.31	1.73	1822.73	0.00	0.00	1822.74	0.03	2.11	0.00	1821.00
2570.	523.	102.	1945.	417.	51.	1271.	326.	319.	1821.00
0.92	1.25	1.99	1.53	0.080	0.080	0.080	0.000	1821.00	6279.75
0.005650	250.	250.	250.	3	0	0	0.00	1713.38	7993.12

*SECNO 18.610

3265 DIVIDED FLOW

18.61	0.90	1829.90	0.00	0.00	1829.92	0.02	7.18	0.00	1829.00
2280.	1039.	329.	912.	719.	455.	1634.	401.	422.	1829.00
1.33	1.45	0.72	0.56	0.040	0.080	0.160	0.000	1829.00	424.90
0.004385	1500.	1450.	1400.	7	0	0	0.00	4550.47	5645.97

*SECNO 18.850

3265 DIVIDED FLOW

3280 CROSS SECTION 18.85 EXTENDED 0.50 FEET

18.85	1.50	1837.50	0.00	0.00	1837.53	0.03	7.61	0.00	1837.00
2280.	1302.	378.	599.	730.	422.	892.	485.	559.	1837.00
1.64	1.78	0.90	0.57	0.040	0.080	0.160	0.000	1836.00	208.64
0.005930	1500.	1500.	1500.	6	0	0	0.00	3424.93	4900.00

*SECNO 18.910

3265 DIVIDED FLOW

18.91	1.37	1838.47	0.00	0.00	1838.48	0.01	0.95	0.00	1837.50
2280.	59.	1389.	832.	47.	1413.	1745.	498.	578.	1837.50
1.72	1.24	0.98	0.48	0.040	0.080	0.160	0.000	1836.50	2952.54
0.002899	260.	250.	200.	3	0	0	0.00	3492.19	7548.69

*SECNO 18.960

*SECNO 19.360

3265 DIVIDED FLOW

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
19.06	1.15	1841.15	0.33	0.00	1841.22	0.07	2.72	0.02	1840.00
2280.	336.	1545.	399.	119.	689.	527.	525.	609.	1840.00
1.79	2.82	2.24	0.75	0.040	0.080	0.160	0.000	1840.00	1153.17
0.012100	520.	520.	520.	2	0	0	0.00	1711.16	4804.97

*SECNO 9.300

9.30	1.65	1845.65	0.33	0.00	1845.67	0.02	4.44	0.01	1845.00
2280.	31.	1598.	650.	32.	1389.	1217.	563.	650.	1844.00
2.02	0.99	1.15	0.53	0.040	0.080	0.160	0.000	1844.00	1783.97
0.003156	700.	800.	850.	5	0	0	0.00	2676.43	4460.40

1490 NH CARD USED
*SECNO 9.410
3280 CROSS SECTION 9.41 EXTENDED 0.36 FEET

9.41	0.96	1848.86	0.33	0.00	1848.94	0.08	3.25	0.02	1847.90
2280.	903.	1112.	265.	455.	433.	132.	588.	681.	1847.90
2.09	1.99	2.57	2.33	0.049	0.060	0.060	0.000	1847.90	3084.58
0.011346	600.	600.	600.	4	0	0	0.00	1815.42	4500.00

1490 NH CARD USED
*SECNO 9.411

3370 NORMAL BRIDGE,NRD= 19 MIN ELTRD= 1848.90 MAX ELLC= 1850.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 2700.0 6120.0 TYPE= 1 TARGET= 3420.000

9.41	10.54	1851.04	1851.04	0.00	1851.54	0.50	0.02	0.13	1647.80
13000.	8849.	3873.	273.	3918.	394.	268.	588.	681.	1847.80
2.09	2.26	9.83	1.04	0.042	0.015	0.037	0.000	1840.50	2700.00
0.003484	5.	5.	5.	20	6	0	-5235.11	3420.00	6120.00

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC. -- EGP
T3 LVW LEFT OVERBANK BREAKOUT - LM TO LVB 100-YEAR

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ

	3.	4.	0.	0.	0.00000M	0.00	0.0	0.	1791.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 6.920

3470 ENCROACHMENT STATIONS= 6201.0 11437.0 TYPE= 1 TARGET= 5237.000
Model of Q50 and Q100 breakouts in left overbank between Lamb Blvd and Lake Mead Blvd. Use truncated xsecs from full FEC-2 model. Add 10.0 to xsec numbers from full model. Start at x-6.92 with full Q100 flow, and floodplain in LOB encroached to reasonable expansion limits. Q50 overbank flow does not return to channel here; keep separate. Use ET cards for x-6.92 to x-17.97 to set approx 1:1 expansion limits. Flows come from R4_MID_SF.out; split flow run for main channel.

6.92	13.30	1791.00	0.00	1788.00	1791.01	0.01	0.00	0.00	1791.00
23540.	22597.	919.	23.	30223.	918.	62.	0.	0.	1790.90
0.09	0.75	1.00	0.38	0.070	0.070	0.070	0.000	1777.70	6200.00
0.000114	580.	830.	840.	0	0	0	0.00	5237.00	11437.00

*SECNO 17.140

3265 DIVIDED FLOW

3280 CROSS SECTION 17.14 EXTENDED 0.09 FEET

3470 ENCROACHMENT STATIONS= 6200.0 12150.0 TYPE= 1 TARGET= -6200.000

17.14	3.09	1791.09	0.00	1788.28	1791.10	0.01	0.09	0.00	1788.00
11930.	1910.	285.	9735.	2333.	309.	10860.	298.	68.	1788.00
0.18	0.82	0.92	0.90	0.070	0.070	0.070	0.000	1788.00	6200.00
0.000419	580.	580.	580.	2	0	0	0.00	4964.17	12150.00

*SECNO 17.340
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 6850.0 12321.0 TYPE= 1 TARGET= -6850.000

17.34	1.28	1792.28	1792.28	1792.38	1792.66	0.38	0.85	0.11	1791.00
11930.	4316.	737.	6877.	1091.	128.	1271.	408.	124.	1791.00
0.22	3.95	5.77	5.41	0.070	0.070	0.070	0.000	1791.00	6850.00
0.053280	600.	600.	600.	20	18	0	0.00	3218.10	10068.10

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
 *SECNO 17.600

 3470 ENCROACHMENT STATIONS=     6801.0     11410.0   TYPE=      1   TARGET=    -6800.000
     17.60       4.32   1800.02      0.00   1797.53   1800.08      0.06       7.39       0.03   1796.00
     11930.      3906.      2965.      5053.      2431.      1168.      2778.      530.       212.       1796.00
       0.39       1.61       2.54       1.32      0.070      0.070      0.070      0.000   1796.00   6800.00
  0.002235       1200.      1200.      1200.          8          0          0       0.00   3135.18   9935.18

 *SECNO 17.690

 3470 ENCROACHMENT STATIONS=     7303.0     11640.0   TYPE=      1   TARGET=    -7300.000
     17.68       3.82   1801.32      0.00   1800.12   1801.47      0.16       1.36       0.03   1797.50
     11930.      3016.      2510.      6404.      1223.       572.      2150.      574.       236.       1797.50
       0.42       2.47       4.39       2.92      0.070      0.070      0.070      0.000   1797.50   7447.66
  0.007161        370.       370.       370.          4          0          0       0.00   2455.03   9902.68

 *SECNO 17.970

 3265 DIVIDED FLOW

 3280 CROSS SECTION      17.97 EXTENDED       0.22 FEET

 3470 ENCROACHMENT STATIONS=     8503.0     12454.0   TYPE=      1   TARGET=    -8500.000
     17.97       3.12   1813.12      0.00   1811.64   1813.23      0.11      11.75       0.01   1810.00
     11470.      5599.       561.      5303.      2016.       156.      2346.      745.       335.       1810.00
       0.61       2.78       3.60       2.25      0.070      0.070      0.070      0.000   1810.00   8500.00
  0.006290       1750.      1750.      1750.          6          0          0       0.00   2516.19  12454.00

 *SECNO 18.190

 3265 DIVIDED FLOW

     18.19       3.51   1819.51      0.00   1818.39   1819.59      0.08       6.36       0.00   1816.00
     11470.      8183.       871.      2415.      3982.       246.      1107.      870.       418.       1816.00
       0.75       2.05       3.55       2.18      0.070      0.070      0.070      0.000   1816.00   4075.76
  0.005238       1110.      1110.      1110.          4          0          0       0.00   3955.88   8467.31
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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 *SECNO 18.270
     18.27       2.20   1821.70      0.00   1820.54   1821.81      0.11       2.21       0.01   1819.50
     9720.       3449.       214.      6057.      1504.        66.      2191.      907.       445.       1819.50
       0.79       2.29       3.24       2.75      0.070      0.070      0.070      0.000   1819.50   5389.95
  0.008093        350.       350.       353.          2          0          0       0.00   2795.03   8184.98

 *SECNO 18.310
     18.31       2.74   1823.74      0.00   1822.70   1823.84      0.10       2.04       0.00   1821.00
     9720.       2362.       271.      7088.      1092.        82.      2657.      929.       460.       1821.00
       0.82       2.16       3.29       2.57      0.080      0.080      0.080      0.000   1821.00   5889.87
  0.006194        250.       250.       253.          3          0          0       0.00   2385.69   8278.56

 *SECNO 18.610
     18.61       1.55   1830.55      0.00   1829.90   1830.59      0.03       6.74       0.01   1829.00
     6410.       3579.      1076.      1755.      1993.      1349.      2964.      1094.      593.       1829.00
       1.11       1.90       0.80       0.59      0.040      0.080      0.160      0.000   1829.00   180.89
  0.002474       1500.      1450.      1403.          6          0          0       0.00   5657.20   5838.09

 *SECNO 18.850
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3265 DIVIDED FLOW

3280 CROSS SECTION 18.85 EXTENDED 0.75 FEET

18.85	1.75	1837.75	0.00	1837.50	1837.88	0.13	7.26	0.03	1837.00
6410.	3921.	1134.	1355.	1112.	638.	1184.	1251.	752.	1837.00
1.26	3.53	1.78	1.15	0.040	0.080	0.160	0.000	1836.00	187.45
0.013418	1500.	1500.	1500.	5	0	0	0.00	3574.74	4900.00

*SECNO 18.910

3265 DIVIDED FLOW

3280 CROSS SECTION 18.91 EXTENDED 0.12 FEET

18.91	2.62	1839.12	0.00	1838.47	1839.14	0.02	1.24	0.01	1837.50
4850.	204.	2897.	1749.	131.	2349.	3149.	1273.	772.	1837.50
1.33	1.55	1.23	0.56	0.040	0.080	0.160	0.000	1836.50	2888.01
0.002318	260.	250.	200.	3	2	0	0.00	3990.10	7700.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 19.060

3265 DIVIDED FLOW

19.06	1.55	1841.55	0.00	1841.15	1841.69	0.14	2.52	0.04	1840.00
4850.	858.	2920.	1073.	217.	933.	951.	1319.	808.	1840.00
1.38	3.94	3.13	1.13	0.040	0.080	0.160	0.000	1840.00	1120.24
0.015783	520.	520.	520.	3	0	0	0.00	2067.70	4819.47

*SECNO 9.300

9.30	2.28	1846.28	0.00	1845.55	1846.31	0.03	4.61	0.01	1845.00
4850.	184.	3200.	1467.	122.	2152.	2208.	1381.	856.	1844.00
1.56	1.51	1.49	0.66	0.040	0.080	0.160	0.000	1844.00	1691.23
0.002942	700.	800.	850.	3	0	0	0.00	3030.75	4721.97

1490 NH CARD USED
*SECNO 9.410

3265 DIVIDED FLOW

3280 CROSS SECTION 9.41 EXTENDED 0.72 FEET

9.41	1.32	1849.22	0.00	1848.86	1849.33	0.11	2.99	0.03	1847.90
4850.	2552.	1784.	514.	1019.	592.	203.	1425.	895.	1847.90
1.62	2.50	3.01	2.53	0.047	0.060	0.060	0.000	1847.90	2113.38
0.010246	600.	600.	600.	5	0	0	0.00	2551.21	4900.00

1490 NH CARD USED
*SECNO 9.411

3370 NORMAL BRIDGE,NRD= 19 MIN ELTRD= 1848.90 MAX ELLC= 1850.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 2700.0 6120.0 TYPE= 1 TARGET= 3420.000

9.41	11.92	1851.52	1851.52	1851.04	1852.02	0.49	0.03	0.11	1847.80	
24000.	18508.	4386.	1106.	5185.	403.	569.	1425.	895.	1847.80	
1.62	3.57	10.89	1.94	0.043	0.015	0.037	0.000	1840.50	2700.00	
0.006373	5.	5.	5.	20	11	0	-5325.21	3420.00	6120.00	

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LVW LEFT OVERBANK BREAKC

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6.920	0.00	0.00	0.00	1777.70	2870.00	1788.00	0.00	1788.00	0.16	0.32	15560.10	7204.04
	6.920	0.00	0.00	0.00	1777.70	23540.00	1791.00	0.00	1791.01	1.14	1.00	31203.13	22018.90
*	17.140	580.00	0.00	0.00	1788.00	2870.00	1788.28	1788.28	1788.41	1083.88	2.99	976.78	87.17
	17.140	580.00	0.00	0.00	1788.00	11930.00	1791.09	0.00	1791.10	4.19	0.92	13502.11	5825.83
	17.340	600.00	0.00	0.00	1791.00	2870.00	1792.38	0.00	1792.40	21.52	1.22	2829.61	618.61
*	17.340	600.00	0.00	0.00	1791.00	11930.00	1792.28	1792.28	1792.66	532.80	5.77	2490.03	516.84
	17.600	1200.00	0.00	0.00	1796.00	2870.00	1797.53	0.00	1797.64	129.79	3.21	1180.08	251.91
	17.600	1200.00	0.00	0.00	1796.00	11930.00	1800.02	0.00	1800.08	22.35	2.54	6376.07	2523.50
	17.680	370.00	0.00	0.00	1797.50	2870.00	1800.12	0.00	1800.19	42.28	2.63	1624.10	441.39
	17.680	370.00	0.00	0.00	1797.50	11930.00	1801.32	0.00	1801.47	71.61	4.39	3984.77	1409.81
	17.970	1750.00	0.00	0.00	1810.00	2840.00	1811.64	0.00	1811.71	117.30	3.19	1363.31	262.22
	17.970	1750.00	0.00	0.00	1810.00	11470.00	1813.12	0.00	1813.23	62.90	3.60	4517.99	1446.18
	18.190	1110.00	0.00	0.00	1816.00	2840.00	1818.39	0.00	1818.43	36.80	2.30	1937.64	468.17
	18.190	1110.00	0.00	0.00	1816.00	11470.00	1819.51	0.00	1819.59	52.38	3.55	5334.47	1584.86
	18.270	350.00	0.00	0.00	1819.50	2570.00	1820.54	0.00	1820.62	140.07	2.59	1188.85	217.15
	18.270	350.00	0.00	0.00	1819.50	9720.00	1821.70	0.00	1821.81	80.93	3.24	3761.36	1080.45
	18.310	250.00	0.00	0.00	1821.00	2570.00	1822.70	0.00	1822.74	56.50	1.99	1738.38	341.90
	18.310	250.00	0.00	0.00	1821.00	9720.00	1823.74	0.00	1823.84	81.94	3.29	3831.05	1073.76
	18.610	1450.00	0.00	0.00	1829.00	2280.00	1829.90	0.00	1829.92	43.85	0.72	2807.41	344.31
	18.610	1450.00	0.00	0.00	1829.00	6410.00	1830.55	0.00	1830.59	24.74	0.80	6195.90	1288.74
	18.850	1500.00	0.00	0.00	1836.00	2280.00	1837.50	0.00	1837.53	59.30	0.90	2043.60	296.08
	18.850	1500.00	0.00	0.00	1836.00	6410.00	1837.75	0.00	1837.88	134.18	1.78	2933.48	553.37

1

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	18.910	250.00	0.00	0.00	1836.50	2280.00	1838.47	0.00	1838.48	28.99	0.98	3205.64	423.46

18.910	250.00	0.00	0.00	1836.50	4850.00	1839.12	0.00	1839.14	23.18	1.23	5628.73	1007.34
19.050	520.00	0.30	0.00	1840.00	2280.00	1841.15	0.00	1841.22	121.00	2.24	1335.25	207.27
19.060	520.00	0.00	0.00	1840.00	4850.00	1841.55	0.00	1841.69	157.83	3.13	2100.78	386.05
9.300	800.00	0.00	0.00	1844.00	2280.00	1845.65	0.00	1845.67	31.56	1.15	2637.34	405.88
9.300	800.00	0.00	0.00	1844.00	4850.00	1846.28	0.00	1846.31	29.42	1.49	4481.43	894.10
9.410	600.00	0.00	0.00	1847.90	2280.00	1848.86	0.00	1848.94	113.46	2.57	1020.04	214.05
9.410	600.00	0.00	0.00	1847.90	4850.00	1849.22	0.00	1849.33	102.46	3.01	1814.98	479.14
* 9.411	5.00	1848.90	1850.00	1840.50	13000.00	1851.04	1851.04	1851.54	34.84	9.83	4580.49	2202.40
* 9.411	5.00	1848.90	1850.00	1840.50	24000.00	1851.52	1851.52	1852.02	63.73	10.89	6156.98	3006.36

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LVW LEFT OVERBANK BREAKC

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6.920	2870.00	1788.00	0.00	0.00	0.00	5188.89	0.00
	6.920	23540.00	1791.00	3.00	0.00	3.00	5237.00	0.00
*	17.140	2870.00	1788.28	0.00	0.28	0.00	3647.79	580.00
	17.140	11930.00	1791.09	2.81	0.09	2.81	4964.17	580.00
	17.340	2870.00	1792.38	0.00	4.10	0.00	3243.85	600.00
*	17.340	11930.00	1792.28	-0.10	1.19	-0.10	3218.10	600.00
	17.600	2870.00	1797.53	0.00	5.15	0.00	1391.45	1200.00
	17.600	11930.00	1800.02	2.49	7.74	2.49	3135.18	1200.00
	17.680	2870.00	1800.12	0.00	2.59	0.00	1614.79	370.00
	17.680	11930.00	1801.32	1.19	1.29	1.19	2455.03	370.00
	17.970	2840.00	1811.64	0.00	11.52	0.00	1615.15	1750.00
	17.970	11470.00	1813.12	1.48	11.81	1.48	2516.19	1750.00
	18.190	2840.00	1818.39	0.00	6.75	0.00	2024.47	1110.00
	18.190	11470.00	1819.51	1.12	6.39	1.12	3955.88	1110.00
	18.270	2570.00	1820.54	0.00	2.15	0.00	1643.36	350.00
	18.270	9720.00	1821.70	1.16	2.19	1.15	2795.03	350.00
	18.310	2570.00	1822.70	0.00	2.16	0.00	1713.38	250.00
	18.310	9720.00	1823.74	1.04	2.04	1.04	2388.69	250.00
	18.610	2280.00	1829.90	0.00	7.20	0.00	4550.47	1450.00
	18.610	6410.00	1830.55	0.65	6.81	0.65	5657.20	1450.00
	18.850	2280.00	1837.50	0.00	7.60	0.00	3424.93	1500.00
	18.850	6410.00	1837.75	0.25	7.20	0.25	3574.74	1500.00
	18.910	2280.00	1838.47	0.00	0.98	0.00	3492.19	250.00
	18.910	4850.00	1839.12	0.65	1.37	0.65	3990.10	250.00
	19.060	2280.00	1841.15	0.00	2.67	0.00	1711.16	520.00
	19.060	4850.00	1841.55	0.41	2.44	0.41	2067.70	520.00
	9.300	2280.00	1845.65	0.00	4.51	0.00	2676.43	800.00
	9.300	4850.00	1846.28	0.63	4.73	0.63	3030.75	800.00
	9.410	2280.00	1848.86	0.00	3.20	0.00	1815.42	600.00

	9.410	4850.00	1845.22	1.36	2.93	0.36	2551.21	600.00
*	9.411	13000.00	1851.04	0.00	2.19	0.00	3420.00	5.00
*	9.411	24000.00	1851.52	0.49	2.31	0.49	3420.00	5.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 17.140 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 17.140 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 17.140 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 17.140 PROFILE= 1 SLOPE TOO STEEP

CAUTION SECNO= 17.340 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 17.340 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 17.340 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 9.411 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.411 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.411 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 9.411 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.411 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.411 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

EOF..

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SF
TN                BREAKOUT OVER ROB ABOVE LAMB
NS        3        6.76      7.14        -1        0.10      .002
NG        0     1783.0        830     1790.9        2050   1793.1
TN                BREAKOUT OVER LOB
NS        4        7.61      7.97        6.92      .080      .006
NG        0     1806.0           5     1806.0         300   1808.3      1930   1815.1
TN                BREAKOUT OVER LOB RIDGE
NS        3        7.97      8.27        6.92      .050      .006
NG        0     1815.1        1100    1823.9        1450   1824.0
TN                BREAKOUT OVER PECOS RD J/S LAKE MEAD
NS        7     8.270        8.61        6.92      .090      .005
NG        0     1824              5     1824           230     1826       235     1826       530   1826.4
NG      760     1827.2        2010    1830.0
TN                BREAKOUT OVER PECOS RD - LAKE MEAD TO CAREY
NS        3        8.61      8.90        6.92      .10       .005
NG        0     1830          1960    1837.0        2090   1839.0
TN                BREAKOUT OVER PECOS RD - CAREY TO LVB
NS        4        8.90      9.43        6.92      .14       .005
NG        0     1839.0           750  1842.5        1980   1848.0      2800   1850.8
TW                WEIR OVER LVB EAST OF PECOS - GOES TO OVERBANK MODEL
WS        2     9.411        9.43        6.92        3.0
WC    11400     1850        12350        1850
EE

      47
    6.75  Split flow run for Q100 and Q50 - LOB modeled separately
    6.75  Lamb Blvd - Normal Bridge routine - 1 ft debris loading
    6.75  Q500 restricted to 1:1 expansion from 6.92 to 6.16
    6.75  CL = 10000
    6.92  CL = 11370
    6.92  Upstream LOB overflows return to model.
    7.14  CL = 12260
    7.14  Q50 breakout in ROB reduce downstream flows.  Breakout not modeled.
    7.14  Q100 ROB breakout modeled separately.
    7.34  CL = 12370
    7.60  Owens Avenue Bridge - normal bridge routine - 2 ft debris loading
    7.60  CL = 11490
    7.68  CL = 11800
    7.97  CL = 12520
    7.97  Q50 breakout in LOB reduces downstream flows.  Breakout not modeled.
    7.97  Q100 breakout in LOB modeled separately.
    8.19  START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
    8.19  CL = 8980
    8.27  LAKE MEAD BLVD BRIDGE
    8.27  Q50 breakout in LOB reduces downstream flows.  Breakout not modeled.
    8.27  Q100 breakout in LOB modeled separately.
    8.27  Carey Ave Q25 breakout returns to channel
    8.27  CL = 9050
  8.271   Q25 breakout in ROB is subtracted from channel Q
    8.31  CL = 9080
    8.61  CL = 8010
    8.61  Q50 breakout over Pecos reduces d/s flows.  Breakout not modeled.
    8.61  Q100 breakout over Pecos modeled separately.
    8.85  CL = 7090
    8.90  CAREY AVE BRIDGE
    8.90  Normal bridge; approximation of arch culvert.
    8.90  May need to modify ER points for very low flows.
    8.90  CL = 10000
    8.91  CL = 10000
  8.911   Q25 reduced for LOB and ROB breakouts.  ROB returns downstream
  8.911   of Carey Ave bridge.  LOB returns at Pecos/Lake Mead.
  8.911   Q50 breakout in ROB does not return to channel.
    9.06  CL = 7310
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C    9.41  LAS VEGAS BLVD BRIDGE
C    9.41  025 has boundaries from 9.41 to 9.47 limited with ET cards
C    9.41  to make them consistent with location of breakouts upstream.
C    9.41  CL = 5430
C    9.43  Split flow moceled as weir flow over LVB; weir length limited to
C    9.43  approx 1000 ft by effective flow expansion from 9.47.
C    9.43  CL = 5050
C    9.47  CL = 7740
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  -50-YEAR
J1           3                                                    1784.0
J2     1          -1                                                        15
QT    4.    6400   13000   24000   34000
ET                     8.1     8.1   14940   15040              15040
NC .070      .090    .030     0.1     0.3
NH       9  0.130    4690   0.100   13425   0.130   14809   0.030   14942   0.035
NH   15039  0.045   16195   0.100   16755   0.045   21140   0.130   22860
X1    6.71     42   14942   15039     650     450     780
X3      10                                          1784.0  1784.0
X4       2  1790.0    5200  1795.0    5600
GR1796.0     2630  1792.0    3960  1792.0    4690  1784.0    8200  1784.0   12020
GR1784.0    13425  1780.0   14065  1780.0   14680  1777.4   14809  1777.6   14835
GR1778.5    14910  1779.0   14914  1784.8   14942  1773.0   14956  1769.3   14987
GR1769.3    14997  1769.3   15012  1771.9   15025  1784.8   15039  1781.9   15040
GR1781.9    15071  1781.0   15110  1781.3   15136  1781.2   15150  1781.2   15167
GR1780.0    15195  1782.1   15222  1782.1   15298  1781.8   15387  1779.8   15404
GR1779.8    15461  1781.6   15472  1781.0   15531  1780.0   15640  1780.0   15710
GR1782.0    16195  1782.0   16755  1784.0   21140  1784.0   21860  1788.0   22235
GR1792.0    22575  1796.0   22860
ET                     6.1     8.1     8.1    9925   10075              10075
NC                     0.3     0.5
X1    6.75     22    9928   10072     140     220     220
X3      10
GR    1790    160    1784    1150    1784    2940    1783    6700  1783.5    7000
GR1783.5      7800   1784    8250    1784    8800    1782    8900    1782    9250
GR    1780    9550   1780    9850    1783    9928  1771.4    9947  1779.9   10000
GR1771.4     10053   1783   10072    1783   12000  1783.5   12400  1783.5   15600
GR    1784   15900   1788   16900
ET              6.1     6.1     8.1     8.1    9925   10075              10075
X1   6.751     32    9928   10072       5       5       5
X3      10
X4       1  1771.4   10047
BT      -4    9928    1783    1783    9947    1783    1782   10053    1783    1782
BT           10072    1783    1783
GR    1790    160    1784    1150    1784    2940    1783    6700  1783.5    7000
GR1783.5      7800   1784    8250    1784    8800    1782    8900    1782    9250
GR    1780    9550   1780    9850    1783    9928  1771.4    9947  1771.4    9953
GR    1782    9953   1782    9957  1771.4    9957  1779.9    9998    1782    9998
GR    1782   10032  1779.9   10002  1771.4   10043    1782   10043    1782   10047
GR1771.4     10053   1783   10072    1783   12000  1783.5   12400  1783.5   15600
GR    1784   15900   1788   16900
ET              6.1     8.1     8.1    9927   10073              10075
X1    6.76                      100     100     100                0.2
X2               0                                1
X3      10
ET              6.1     8.1     8.1    9927   10073              10075
X1   6.761     22    9928   10072     140     220     220                0.2
X3      10
GR    1790    160    1784    1150    1784    2940    1783    6700  1783.5    7000
GR1783.5      7800   1784    8250    1784    8800    1782    8900    1782    9250
GR    1780    9550   1780    9850    1783    9928  1771.4    9947  1779.9   10000
GR1771.4     10053   1783   10072    1783   12000  1783.5   12400  1783.5   15600
GR    1784   15900   1788   16900
ET              6.1     8.1     8.1   11320   11437              11437
X1    6.92     36   11321   11410     580     840     830
X3      10
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X4          1  1790.0       900
GR1793.0      680      1788      1000      1788      2000      1787      3500      1786      4850
GR  1795     6450      1785      9200      1784      9550      1784     10200      1784     10200
GR1787.3    11000    1787.7     11145    1786.5     11169    1786.6     11200    1787.0     11289
GR1791.0    11321    1781.8     11334    1777.7     11357    1777.7     11366    1779.0     11378
GR1781.0    11406    1790.9     11410    1786.9     11426    1790.0     11437    1789.9     11504
GR1788.3    11551    1788.1     11559    1788.1     11578    1788.1     11605    1788.1     11612
GR1788.6    11622      1786     12100    1786.      12300      1788     13600      1788     16450
GR  1792    17230
ET                      6.1       6.1                11200     12370
VC                      0.1       0.3
X1   7.14       31     12150     12369       580      1250      1200
X3     10
GR  1800      450      1791      1050      1790      1500    1789.5      2300      1788      3700
GR  1789     4600      1789      6200      1788      7200      1788     10450    1792.5     11200
GR1791.0    12000    1791.0     12114    1791.0     12150    1787.0     12224    1779.2     12259
GR1779.2    12265    1792.4     12272    1785.6     12280    1792.0     12293    1792.0     12312
GR1792.8    12369    1791.6     12391    1793.1     12412    1792.8     12524    1792.6     12729
GR1791.5    12879    1791.8     12931      1792     12970      1794     13300      1795     14000
GR  1795    16200      1796     16630      1800     16800
ET                      6.1       8.1                7300                12320
VH          4        .050     10980       .070     12321      .025     12437      .160     13730
X1   7.34       33     12321     12437       600      1300      1050
X3     10
GR1800.0      150    1795.0       900    1790.0      3500    1792.0      5000    1792.0      6850
GR1791.0     9600    1791.0      9500    1792.0      9600    1792.0     10000    1796.0     10980
GR1796.0    12000    1796.3     12048    1795.8     12125    1796.6     12229    1795.7     12268
GR1798.0    12321    1786.7     12343    1786.2     12358    1785.5     12371    1787.2     12411
GR1796.5    12437    1794.1     12463    1794.1     12531    1794.1     12538    1796.9     12548
GR1797.2    12571    1795.3     12600    1794.2     12626    1794.6     12642    1799.6     12656
GR1804.4    12726    1800.5     12730    1804.0     13739
ET                      6.1       6.1                11200
VC                      0.3       0.5
VH          6        .045      6250       .055      8000       .045      9550       .060     11410       .025
VH      11577        0.16     12410
X1   7.60       24     11410     11577      1200      1350      1360
X3     10
GR1804.0      200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5     4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0     8450    1797.0      9800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0    11200    1804.5     11280    1803.9     11410    1793.8     11441    1793.8     11546
GR1803.8    11577    1804.8     11790    1805.7     11970    1808.0     12410
ET                      6.1       6.1                11200
VH          6        .045      6250       .055      8000       .045      9550       .060     11410       .025
VH      11577        0.16     12410
X1  7.601       39     11410     11577         5         5         5
X3     10
BT         -4    11410     1803.9     1803.9     11440     1803.9     1802.3     11547     1803.8     1802.3
BT           11577     1803.8     1803.9
GR1804.0      200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5     4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0     8450    1797.0      9800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0    11200    1804.5     11280    1803.9     11410    1793.9     11440    1802.3     11440
GR1802.3 11443.5     1793.8  11443.5     1793.8  11474.5     1802.3  11474.5     1802.3     11478
GR1793.8    11478    1793.8     11509    1802.3     11509    1802.3  11512.5     1793.8  11512.5
GR1793.8 11543.5     1802.3  11543.5     1802.3     11547     1793.8     11547     1803.8     11577
GR1803.8    11577    1804.8     11790    1805.7     11970    1808.0     12410
ET                      6.1       6.1                11200
VH          6        .045      6250       .055      8000       .045      9550       .060     11410       .025
VH      11577        0.16     12410
X1  7.610       39     11410     11577        70        70        70
X3     10
BT         -4    11410     1803.9     1803.9     11440     1803.9     1802.3     11547     1803.8     1802.3
BT           11577     1803.8     1803.8
GR1804.0      200    1800.0       600    1798.0      1300    1796.5      1600    1796.5      3300
GR1799.5     4300    1799.0      6250    1799.5      6800    1796.0      8000    1796.0      8290
GR1797.0     8450    1797.0      9800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0    11200    1804.5     11280    1803.9     11410    1793.9     11439    1802.3     11439
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GR1802.3 11444.5  1793.9 11444.5  1793.9 11473.5  1802.3 11473.5  1802.3  11479
GR1793.9  11479   1793.9  11508   1802.3  11508   1802.3 11513.5  1793.9 11513.5
GR1793.9 11542.5  1802.3 11542.5  1802.3  11547   1793.8  11547   1803.2  11577
GR1803.8  11577   1804.8  11799   1805.7  11979   1808.0  12410
ET                  6.1     6.1          11200
NH      6   .045    6250    .055    8000    .045    9550    .060   11410    .025
NH  11577   0.16   12410
X1  7.611     24   11410   11577       5       5       5
X3     10
GR1804.0     200  1800.0     600  1798.0    1300  1796.5    1600  1796.5    3300
GR1799.5    4300  1799.0    6250  1799.5    6800  1796.0    8000  1796.0    8290
GR1797.0    9450  1797.0    8800  1800.0    9550  1800.0    9930  1804.0   10730
GR1806.0   11200  1804.5   11280  1803.9   11410  1793.9   11441  1793.9   11547
GR1803.8   11577  1804.8   11790  1805.7   11970  1808.0   12410
ET                  6.1     6.1          11639
NH      6   .040    5800    .070    7700    .040   10500    .120   11640    .025
NH  11930   .150   13620
X1   7.68     32   11640   11930     290     220     280
X3     10                                          1803.0  1803.0
GR1810.0     400  1800.0    1650  1799.0    2200  1799.0    3750  1800.0    4000
GR1802.0    4450  1801.0    5800  1801.0    6900  1801.0    7700  1800.0    8070
GR1800.0    9350  1797.5    9550  1797.5    8700  1800.0    9060  1799.0    9250
GR1799.0    9400  1800.0    9610  1804.0   10500  1804.4   11000  1808.3   11640
GR1808.0   11710  1796.0   11760  1794.5   11790  1794.5   11830  1796.0   11840
GR1808.0   11870  1809.5   11930  1806.5   12200  1806.8   12470  1808.0   12570
GR1808.0   13100  1812.0   13620
ET                  6.1     6.1          12410
NC                          0.1     0.3
NH      5   .040    3400    .060   12470    .025   12766    .040   13400    .160
NH  14200
X1   7.97     34   12454   12563    1750    1340    1610
X3     10
X4      2 1813.0   11000 1813.0   11700
GR1816.0     500  1812.0    1000  1810.0    1800  1810.0    2400  1813.0    3400
GR1811.0    4600  1811.0    7500  1812.0    8500  1810.0    9450  1810.0   10000
GR1815.2   12000  1816.6   12227  1815.6   12313  1813.6   12367  1815.1   12418
GR1812.8   12442  1812.9   12454  1812.0   12470  1806.5   12503  1806.0   12515
GR1806.0   12526  1806.7   12540  1808.8   12561  1812.4   12563  1813.7   12597
GR1814.5   12669  1813.0   12701  1814.0   12736  1815.0   12756  1816.0   12766
GR1816.7   12794  1815.0   13250  1816.0   13400  1816.0   14200
ET                  6.1     6.1          8940
NH      6   .040    3800    .060    7800    .050    8941    .030    9014    .050
NH   9204   0.14   11140
X1   8.19     39    8941    9014    1110     930    1140
X3     10                                          1822.0  1822.0
GR1823.0     300  1817.0    1200  1816.0    2500  1820.0    3800  1818.0    4980
GR1819.0    5810  1816.0    7030  1820.0    7800  1820.0    8000  1820.0    8000
GR1819.2    8000  1815.6    8169  1819.4    8408  1820.1    8794  1820.5    8849
GR1821.5    8875  1820.3    8921  1822.6    8927  1823.9    8941  1812.6    8952
GR1810.6    8975  1810.6    8988  1813.2    9001  1814.1    9010  1823.9    9014
GR1820.9    9040  1823.5    9062  1826.7    9084  1826.3    9115  1820.8    9150
GR1819.5    9153  1821.5    9204  1822.0    9255  1823.0    9550  1823.0   10300
GR1823.0   10530  1824.0   10650  1824.0   10940  1824.5   11140
ET                  6.1     8.1          9000    9290    9000
NH      5   .040    4430    .060    9006    .025    9094    .030    9400    0.14
NH  10560
X1   8.27     23    9006.   9094.     350     300     330
X3     10                                          1825.0  1825.0
X4      3 1821.0    8000 1823.0    8650 1823.0    8850
GR1824.0     600  1820.0    1300  1819.0    2400  1820.0    3200  1824.0    4000
GR1822.0    4430  1819.5    5200  1821.0    5850  1819.5    6770  1819.5    7400
GR 1824.    9003.  1824.    9006.  1814.0   9018.  1813.7   905).  1814.0   9082.
GR1822.2    9094.  1823.    9100.  1823.0    9290  1824.0    9400  1824.5    9900
GR1825.0   10050  1825.0   10450  1826.0   10560
BT      1   5390
ET                  6.1     8.1          9000    9290    9000
NC                          0.3     0.5
NH      5   .040    4430    .060    9006    .015    9095    .030    9400    0.14
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NR 10560
X1  8.271        48    9017.    9095.       5       5       5
X3       10                                                    1825.0  1825.0
X4        3  1821.0    8000  1823.0    8650  1823.0    8850
BT       -4    9006  1824.0            9017  1824.1  1821.7    9025  1823.2  1821.7
BT              9095  1823.2  1821.7
GR1824.0       600  1820.0    1300  1819.0    2400  1820.0    3200  1824.0    4000
GR1822.0      4430  1819.5    5200  1821.0    5850  1819.5    6770  1819.5    7400
GR 1824.    9000.    1824.    9006.  1824.0    9017  1813.7  9017.0  1813.7    9025
GR1821.7   9028.3  1813.7   9028.3  1813.7  9034.3  1821.7  9034.3  1821.7  9037.6
GR1813.7   9037.6  1813.7   9043.6  1821.7  9043.6  1821.7  9047.2  1813.7  9047.2
GR1813.7   9057.2  1821.7   9057.2  1821.7    9060  1813.7    9060  1813.7    9070
GR1821.7     9070  1921.7     9073  1813.7    9073  1813.7    9083  1821.7    9083
GR1821.7   9086.6  1813.7   9096.6  1813.7  9095.0  1823.2    9095  1823.2    9095
GR1822.2     9096.    1823.    9100.  1823.0    9290  1824.0    9400  1824.5    9500
GR1825.0    10050  1825.0    10450  1826.0   10560
ET                    6.1       8.1             8900    9270    8900
NC   .055     0.14     .015       0.1     0.3
X1  8.31        48.    9040.    9116.     235.    235.    235.
X2
X3       10
X4        1  1824.0    8280
BT       -5    8940  1824.0            9040  1824.1  1822.0    9046  1823.2  1822.0
BT            9116.0  1824.1  1822.0    9120  1824.0
GR1826.5       800  1822.0    1200  1822.0    2400  1823.0    3200  1823.0    3200
GR1824.0      4000  1823.8    5850  1823.5    6050  1821.0    6770  1822.0    7800
GR 1826.    3900.    1826.    8940  1824.1    9040  1814.0  9040.0  1814.0    9046
GR1822.0      9046  1822.0   9051.3  1814.0  9051.3  1814.0  9055.3  1822.0  9055.3
GR1822.0   9060.6  1814.0   9060.6  1814.0  9064.6  1822.0  9064.6  1822.0  9070.2
GR1814.0   9070.2  1814.0   9078.2  1822.0  9078.2  1822.0  9083.0  1814.0    9083
GR1814.0      9091  1822.0     9051  1822.0    9096  1814.0    9096  1814.0    9104
GR1822.0      9104  1822.0   9109.6  1814.0  9109.6  1814.0  9116.0  1824.0    9116
GR1824.0    9120.    1826.    9140.    1824.    9148.  1823.6    9270  1823.6    9580
GR1824.0      9770  1826.0   10130  1826.0   11780
QT               1    5520
ET                    6.1       8.1             8900    9270    8900
NC   .055     0.14     .025       0.3     0.5
X1  8.311       23.    9014.    9140.       5.      5.      5.
X3       10
X4        1  1824.0    8280
GR1826.5       800  1822.0    1200  1822.0    2400  1823.0    3200  1823.0    3200
GR1824.0      4000  1823.8    5850  1823.5    6050  1821.0    6770  1822.0    7800
GR 1826.    3900.    1826.    8940  1824.1    9014.  1814.5  9034.    1814.  9075.
GR1814.5    9120.    1824.    9140.    1824.    9148.  1823.6    9270  1823.6    9580
GR1824.0      9770  1826.0   10130  1826.0   11780
ET                    6.1       6.1             6880
NC                              0.1     0.3
NH        7    .040     2020    .060    3700    0.16    5380    .040    7000    0.16
NH     7863    .025     8094    0.16   11250
X1  8.61        39.    7923.    8094.    1570.   1370.   1560.
X3       10                                                    1828.5  1828.5
X4        3  1830.5    2900  1830.0    7400  1832.0    7700
GR1832.0          0  1830.0     250  1829.0    2020  1829.0    3700  1829.0    5380
GR1831.0       5970  1827.0    6250  1827.0    6730  1830.0    6880  1825.1    7000
GR1833.1   007741  1833.1   007741  1833.1   007741  1833.1   007741  1833.1   007741
GR1832.7   007754  1830.2   007793  1830.2   007836  1832.8   007863  1832.6   007923
GR1829.9   007952  1822.7   007970  1818.9   008025  1820.1   008039  1822.1   008062
GR1830.3   008077  1832.3   008094  1832.3   008135  1832.4   008173  1832.0     8180
GR1832.0     8710  1832.0     9180  1832.0     9230  1832.0    10070  1832.4    10360
GR1833.0    10500  1834.0    10750  1834.0    11100  1836.0    11250
ET                    6.1       8.1             4900            4900  10080
NH        4    .040     1700    0.16    7007    .025    7188    0.16   11180
X1  8.85        49    7007.    7188.    1370.   1200.   1250.
X3       10                                                    1834.5  1834.5
X4        1  1836.0    4180
GR1840.0          0  1837.0     250  1837.0    1700  1837.0    2550  1840.0    3730
GR1837.0       4900  1833.3  005000  1834.2  005102  1833.9  005248  1834.6  005315
GR1833.9   005362  1834.0   005458  1834.2  005626  1834.0  005773  1833.5  005856
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GR1833.7  005977  1834.6  006004  1834.8  006111  1833.7  006220  1837.7    6395
GR1837.7  006554  1838.1  006837  1838.8  006858  1839.4  006879  1837.9  006900
GR1837.2  006953  1837.0  006981  1837.6  007007  1834.4  007013  1833.0  007025
GR1827.3  007031  1825.1  007044  1824.4  007064  1824.4  007099  1826.2  007119
GR1825.9  007122  1833.5  007134  1835.6  007142  1837.7  007163  1837.8  007188
GR1837.8    7250  1838.0    7420  1838.0    8170  1835.5    8550  1835.7    9570
GR1838.0   10080  1840.0   10450  1842.0   10870    1844   11180
QT    1    5450
ET                  6.1     8.1            7700   11000    7700   12530
NC                          0.3     0.5
NH     6     .040    4500    0.16    9100    .080    9910    .025   10070    0.16
NH 11770    0.12   13920
X1  8.90      35    9910.   10070.     170.     360.     230.
X3    10                                                1836.5  1836.5
X4     2  1840.0    2800  1836.5    6980
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1826.0    9950  1825.2    9955  1825.2   10020  1826.0   10025
GR1838.0   10070  1838.0   10270  1339.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13200  1842.0   13250  1844.0   13580  1844.0   13900  1846.0   13920
ET                  6.1     8.1            7700   11000    7700   12530
NH     6     .040    4500    0.16    9100    .080    9910    .015   10070    0.16
NH 11770    0.12   13920
X1 8.901      50    9950.   10019.      5.      5.      5.
X3    10                                                1837.8  1838.0
X4     3  1840.0    2800  1836.5    6980  1838.0   10070
BT    -7    9890  1837.8            9910  1838.1            9950  1838.5  1832.4
BT          9988  1838.7  1832.4   10019  1838.5  1832.4   10070  1838.2
BT         10270  1838.0
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1837.8    9950  1825.2    9950  1825.2    9959  1832.4    9959
GR1832.4    9964  1825.2    9964  1825.2    9974  1832.4    9974  1832.4    9979
GR1825.2    9979  1825.2    9989  1832.4    9989  1832.4    9994  1825.2    9994
GR1825.2   10004  1832.4   10004  1832.4   10009  1825.2   10009  1825.2   10019
GR1838.0   10019  1838.0   10270  1339.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13200  1842.0   13250  1844.0   13580  1844.0   13900  1846.0   13920
ET                  6.1     8.1            7700   11000    7700   12530
NH     5     .040    4500    0.16    9100    .080    9910    .015   10070    0.16
NH 11770    0.12   13920
X1  8.91      50    9950.   10018.     70.     70.     70.
X2
X3    10                                                1838.1  1838.1
X4     3  1840.0    2800  1836.5    6980  1838.0   10070
BT    -7    9890  1837.8            9910  1839.1            9950  1838.5  1832.8
BT          9988  1838.7  1832.8   10018  1838.5  1832.8   10070  1838.2
BT         10270  1838.0
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1837.8    9950  1825.6    9950  1825.6    9958  1832.8    9958
GR1832.8    9965  1825.6    9965  1825.6    9973  1832.8    9973  1832.8    9980
GR1825.6    9980  1825.6    9988  1832.8    9988  1932.8    9995  1825.6    9995
GR1825.6   10003  1832.8   10003  1832.8   10010  1825.6   10010  1825.6   10018
GR1838.0   10018  1838.0   10270  1339.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13200  1842.0   13250  1844.0   13580  1844.0   13900  1846.0   13920
QT    2    5520   13000
ET                  6.1     8.1            7700   11000    7700   12530
NC                          0.3     0.5
NH     5     .040    4500    0.16    9100    .080    9910    .025   10070    0.16
NH 11770    0.12   13920
X1 8.911      35    9945.   10025.      5.      5.      5.
X3    10                                                1838.1  1838.1
```

K4	2	1840.0	2500	1836.5	5980					
GR1843.0		2650	1837.5	3050	1837.5	4500	1837.5	5350	1841.0	6530
GR1839.0		7700	1837.0	7800	1836.0	7880	1836.0	8140	1835.9	8550
GR1835.2		8850	1836.5	9100	1837.6	9340	1837.5	9870	1837.8	9890
GR1837.8		9910	1828.0	9945	1825.6	9960	1825.6	10015	1828.0	10025
GR1838.0		10070	1838.0	10270	1839.1	10430	1838.0	10800	1837.	11000.
GR1837.0		11770	1838.0	11940	1838.0	12530	1838.0	12810	1840.0	12870
GR1840.0		13200	1842.0	13250	1844.0	13580	1844.0	13900	1846.0	13920
BT	1	6400								
ET			6.1	9.1		4850	7361	4850	8750	
NH	5	.040	2000	0.16	7219	.025	7349	0.16	8360	.11
NH	10960									
K1	9.06	32.	7219.	7349.	650.	830.	920.			
GR1845.0		500	1840.0	1400	1840.0	2000	1841.0	2800	1844.0	4450
GR1841.0		4830	1842.5	4850	1840.9	5000	1840.0	5350	1840.0	7110
GR1842.3		007186	1840.5	007219	1840.7	007238	1833.3	007255	1828.1	007301
GR1832.1		007328	1841.1	007349	1841.9	007361	1840.3	007375	1840.7	007406
GR1840.3		007451	1840.0	7670	1840.0	8360	1841.0	8750	1841.2	9140
GR1842.0		9180	1842.5	9450	1843.1	9900	1844.0	10100	1846.0	10510
GR1846.0		10700	1846.5	10960						
NC				0.1	0.3					
NH	9	.040	4000	0.16	4850	.035	5750	0.13	6630	.030
NH	7212	.026	7447	.036	7900	.050	8700	0.16	11320	
ET			6.1	6.1		4850	7900			
K1	9.30	39	7212	7447	1040	1070	1250			
K4	1	1850.0	1150							
GR1852.0		1000	1845.0	1880	1844.0	3080	1845.0	4000	1846.0	4700
GR1848.0		4850	1846.8	4950	1846.0	5000	1846.0	5300	1845.7	5430
GR1846.2		5750	1843.5	6150	1847.0	6990	1847.0	7162	1847.1	7212
GR1837.8		007232	1835.2	007252	1834.4	007263	1837.8	007291	1842.1	007307
GR1841.4		7327	1840.4	7346	1840.9	7376	1841.2	7390	1840.2	7407
GR1843.8		7422	1844.7	7447	1843.4	7468	1845.5	7840	1846.0	7900
GR1845.5		7980	1845.5	8700	1845.5	9520	1846.0	9760	1848.0	10000
GR1850.0		10400	1850.0	11080	1851.3	11150	1852.0	11320		
ET			6.1	6.1		12700	16400			
NC				0.3	0.5					
NH	8.	.080	12650	.040	14000	.060	14700	.037	15370	.025
NH	15496	.037	16120	.055	17650	.080	18900			
K1	9.41	43	15370.	15496.	340.	330.	570.			
K3	10							1849.8	1850.1	
K4	3	1850.0	9700	1850.0	11800	1848.5	13410			
GR1853.0		9200	1849.0	12200	1849.0	12650	1849.9	12760	1849.0	12960
GR1848.5		14000	1849.0	14150	1847.9	14250	1847.9	14700	1848.5	14900
GR1847.9		015000	1847.9	015065	1847.9	015118	1847.8	015134	1847.9	015242
GR1847.9		015264	1847.9	015306	1848.0	015352	1847.9	015370	1840.5	015389
GR1840.5		015417	1840.5	015461	1845.4	015480	1846.5	015496	1847.4	015535
GR1847.5		015559	1847.2	015579	1847.4	015601	1847.5	015631	1848.9	015676
GR1846.1		015735	1848.3	015762	1846.1	015790	1847.2	015815	1848.2	015950
GR1849.5		16120	1848.3	16200	1849.0	16600	1849.0	17400	1850.0	17650
GR1850.0		18000	1852.0	18280	1854.0	18900				
ET		6.1	6.1	6.1		12700	16400			
NH	8.	.080	12650	.040	14000	.060	14700	.037	15370	.015
NH	15496	.037	16120	.055	17650	.080	18900			
K1	9.411	58	15391.	15459.	5.	5.	5			
K3	10							1849.8	1850.1	
K4	3	1850.0	9800	1850.0	11800	1850.5	12700	1849.9	13410	
BT	-11	15000	1849.9	1847.9	15065	1849.9	1847.9	15184	1850.7	1847.9
BT		15264	1851.3	1847.9	15391	1851.4	1847.8	15459	1851.4	1847.8
BT		15559	1851.0	1847.5	15676	1851.0	1848.9	15735	1851.0	1846.1
BT		15762	1851.0	1848.3	15950	1851.1	1848.2			
GR1860.0		9700	1850.0	12200	1850.0	12650	1849.9	12760	1849.5	12960
GR1848.5		14000	1848.9	14150	1849.9	14250	1849.9	14700	1849.9	14900
GR1847.9		015000	1847.9	015065	1847.9	015118	1847.8	015184	1847.9	015242
GR1847.9		015264	1847.9	015306	1848.0	015352	1847.9	015370	1847.8	015391
GR1840.5		15391	1840.5	15401	1847.8	15401	1847.8	15414	1840.5	15404
GR1840.5		15415	1847.8	15415	1847.8	15418	1840.5	15418	1840.5	15429
GR1847.8		15429	1847.8	15434	1840.5	15434	1840.5	15445	1847.8	15445
GR1847.8		15448	1840.5	15448	1840.5	15459	1847.8	15459	1847.4	15535

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GR1847.5  015559  1847.2  015579  1847.4  015601  1847.5  015631  1848.9  015676
GR1846.1  015735  1848.3  015762  1846.1  015790  1847.2  015815  1848.2  015950
GR1849.5   16120  1850.1   16200  1850.1   16600  1850.1   17400  1850.1   17650
GR1850.0   18000  1852.0   18280  1854.0   18900
ET             6.1             6.1             6.1             12350   15900
NH     5.    .090   12350    .035   14500.    .060   15000.    .015   15120.    .040
NH18630.
K1  9.43       48   15020.   15087.     110.     110.     110.
X3    10                                                  1849.0  1850.1
X4     7  1850.0     9400  1850.0    11150  1849.9    13820  1849.8    14500  1849.9
X4 14680  1850.7    14750  1851.3    14890
BT   -10   15000  1851.4  1850.0    15000  1851.4  1850.0   15020  1851.4  1849.1
BT         15087  1850.1  1849.1    15120  1851.0  1851.0   15400  1851.8  1851.0
BT         15500  1851.2  1850.0    15600  1851.0  1850.0   15750  1850.2  1850.0
BT         16120  1850.0  1850.0
GR1860.0    8300  1850.0   11750  1850.0    12250  1850.0   12250  1850.0    12250
GR1850.0   12350  1850.0   12350  1850.0    12970  1850.0   13000  1849.2    13300
GR1851.4   15000.  1851.4   15000.  1851.4   15000.  1849.2   15020  1841.8    15020
GR1841.8   15029  1849.1   15029  1849.1    15034  1841.8   15034  1841.8    15043
GR1849.1   15043  1849.1   15048  1841.8    15048  1841.8   15057  1849.1    15057
GR1849.1   15064  1841.8   15064  1841.8    15073  1849.1   15073  1849.1    15078
GR1841.8   15078  1841.8   15087  1849.2    15087  1849.2   15087  1850.0    15100
GR 1850.   15100.  1851.   15120.  1851.0    15400  1850.0   15500  1850.0    15600
GR1850.2   15750  1850.1   16120  1850.1    16200  1850.1   17200  1850.8    17450
GR1851.0   17700  1852.2   17950  1852.7    18250  1854.1   18370  1855.2    18630
ET             6.1             6.1             6.1             12350   15900
NC                             0.3             0.5
NH     5.    .090   12350    .035   14500.    .060   15000.    .025   15100.    .040
NH18630.
K1 9.431       31   15000.   15100.       5.       5.       5.
X3    10                                                  1849.8  1850.1
GR1860.0    8300  1850.0    9400  1850.0     9400  1850.0    9400  1850.0     9400
GR1850.0   11500  1849.0   11750  1849.0    12250  1849.0   12250  1849.0    12250
GR1850.0   12350  1850.0   12350  1850.0    12350  1849.5   12450  1849.5    13700
GR1849.5   14000.  1850.0  14400.  1850.     15000.  1841.8  15040.  1841.8   15070.
GR 1850.   15100.  1851.   15120.  1851.0    15400  1850.0   15500  1850.0    16120
GR1849.5   16200  1849.5   17200  1850.0    17450  1852.0   18150  1854.0    18500
GR1854.2   18630
ET             6.1             6.1             4940    8521
NH     6    .080    5000    .060    5575.    .035    7300.    .060    7655.    .027
NH 7845.    .060   11250
X1  9.47       87    7655    7845      185      185      185
X3    10
X4     2  1852.2     4940  1842.3     7728
GR1852.0    4200  1851.0    4450  1852.5     4900  1852.5    4900  1852.5     4900
GR1851.6  005000  1851.4  005059  1850.7  005063  1850.9  005115  1850.4  005147
GR1850.9  005182  1851.0  005217  1850.4  005256  1850.8  005304  1849.7  005380
GR1850.1  005446  1850.4  005631  1850.4  005694  1850.1  005790  1849.9  005861
GR1849.9  005900  1849.6  005925  1849.3  005941  1849.7  005988  1849.9  006040
GR1849.9  006037  1849.2  006171  1849.2  006214  1848.9  006298  1849.2  006340
GR1849.5  006412  1849.5  006461  1849.6  006511  1849.2  006558  1848.4  006675
GR1850.3  006715  1849.7  006735  1850.4  006804  1850.4  006862  1849.6  006928
GR1849.9  006991  1849.9  007041  1849.9  007097  1850.4  007142  1851.2  007181
GR1850.7  007250  1850.1  007276  1850.3  007300  1850.7  007318  1851.2  007345
GR1851.0  007387  1851.4  007425  1851.4  007484  1851.8  007524  1850.8  007556
GR1850.7  007591  1851.2  007622  1852.0  007655  1851.3  007680  1844.5  007702
GR1842.3  007758  1844.6  007777  1843.8  007783  1850.4  007803  1850.7  007845
GR1850.4  007893  1850.3  007955  1850.4  007996  1850.3  008065  1850.1  008129
GR1849.3  008190  1850.1  008239  1849.7  008253  1849.2  008324  1850.0  008364
GR1851.4  008384  1849.7  008418  1849.9  008453  1849.9  008512  1850.8  008521
GR1848.3    9000  1848.3    9500  1849.2    10200  1850.0   10350  1852.0    10700
GR1854.0   11030  1856.0   11250
EJ
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3       LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  -100-year
J1             4                                                 1785.0
J2    15              -1                                                 15
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ER
EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   4-MAY-88 TIME   11:02:38          *
 *************************************************
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*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X        X     X              X     X
X      X  X        X                    X     X
XXXXXXXX  XXXX     X           XXXXX     XXXXX
X      X  X        X                    X
X      X  X        X     X              X
X      X  XXXXXXX   XXXXX               XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1      CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3      LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - 25-YEAR

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINC     Q          WSEL      FQ
        0.        2.        0.        0.  0.002000      0.00      0.0        0.  1780.900     0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000

QT        4.000   6400.000  13000.000  24000.000  84000.000      0.000      0.000      0.000      0.000      0.000
ET        0.000      0.000      0.000      0.000      0.100      0.000      0.000      0.000  19300.000      0.000
NC        0.070      0.080      0.030      0.100      0.300      0.000      0.000      0.000      0.000      0.000
NH        9.000      0.130   4690.000      0.100  13425.000      0.130  14809.000      0.030  14942.000      0.035
NH    15039.000      0.045  16195.000      0.100  16755.000      0.045  21140.000      0.130  22860.000      0.000
X1        6.710     42.000  14942.000  15139.000    650.000    450.000    780.000      0.000      0.000      0.000
X4        2.000   1790.000   5200.000   1785.000   5600.000      0.000      0.000      0.000      0.000      0.000
X3       10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    1796.000   2685.000   1792.000   3960.000   1792.000   4690.000   1784.000   8200.000   1784.000  12020.000
GR    1784.000  13425.000   1780.000  14065.000   1780.000  14680.000   1777.400  14809.000   1777.600  14835.000
GR    1778.500  14910.000   1779.000  14914.000   1784.800  14942.000   1772.000  14956.000   1769.300  14987.000
GR    1769.300  14997.000   1769.300  15012.000   1771.900  15025.000   1784.800  15039.000   1781.900  15040.000
GR    1781.900  15071.000   1781.000  15110.000   1781.300  15136.000   1781.200  15150.000   1781.200  15167.000
GR    1780.000  15195.000   1782.100  15222.000   1782.100  15298.000   1781.800  15387.000   1779.800  15404.000
GR    1779.800  15461.000   1781.600  15472.000   1781.000  15531.000   1780.000  15640.000   1780.000  15710.000
GR    1782.000  16195.000   1782.000  16755.000   1784.000  21140.000   1784.000  21860.000   1788.000  22235.000
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GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	8.100	0.000	0.000	0.000	14050.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
G500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

X1	6.750	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

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ET	0.000	6.100	0.000	0.000	8.100	9927.000	10072.000	0.000	14050.000	0.000
X1	6.751	32.000	9928.000	10072.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1771.400	10047.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	9928.000	1783.000	1783.000	9947.000	1783.000	1782.000	10053.000	1783.000	1782.000
BT	0.000	10072.000	1783.000	1783.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1771.400	9953.000
GR	1782.000	9953.000	1782.000	9957.000	1771.400	9957.000	1770.900	9998.000	1782.000	9998.000
GR	1782.000	10002.000	1770.900	10002.000	1771.400	10043.000	1782.000	10043.000	1782.000	10047.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10072.000	0.000	14050.000	0.000
X1	6.761	31.000	9928.000	10072.000	100.000	100.000	100.000	0.000	0.200	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10072.000	0.000	14050.000	0.000
X1	6.761	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	0.000	0.000	8.100	0.000	0.000	0.000	14100.000	0.000

CL = 11370

X1	6.920	35.000	11321.000	11410.000	580.000	840.000	830.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1790.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1793.000	680.000	1788.000	1000.000	1788.000	2000.000	1787.000	3500.000	1788.000	4850.000
GR	1785.000	6450.000	1785.000	9200.000	1784.000	9550.000	1784.000	10200.000	1784.000	10200.000
GR	1787.300	11000.000	1787.700	11145.000	1786.500	11169.000	1786.600	11200.000	1787.000	11289.000
GR	1791.000	11321.000	1781.800	11334.000	1777.700	11357.000	1777.700	11366.000	1779.000	11378.000
GR	1781.000	11406.000	1790.900	11410.000	1786.900	11426.000	1790.000	11437.000	1789.900	11504.000
GR	1788.300	11551.000	1788.100	11559.000	1788.100	11578.000	1788.100	11605.000	1788.100	11612.000
GR	1788.600	11622.000	1786.000	12100.000	1786.000	12300.000	1788.000	13600.000	1788.000	16450.000
GR	1792.000	17230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	11200.000	12370.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CL = 12263

X1	7.140	31.000	12150.000	12369.000	580.000	1250.000	1200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	450.000	1791.000	1050.000	1790.000	1500.000	1789.500	2300.000	1788.000	3700.000
GR	1789.000	4600.000	1789.000	6200.000	1788.000	7200.000	1788.000	10450.000	1792.500	11200.000

GR	1791.000	12000.000	1791.000	12114.000	1791.000	12150.000	1787.000	12224.000	1779.200	12259.000
GR	1779.200	12265.000	1782.400	12272.000	1785.600	12280.000	1792.000	12293.000	1792.000	12312.000
GR	1796.800	12369.000	1791.600	12391.000	1793.100	12412.000	1792.800	12524.000	1792.600	12729.000
GR	1791.500	12873.000	1791.800	12931.000	1792.000	12970.000	1794.000	13300.000	1795.000	14000.000

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GR	1795.000	16200.000	1756.000	16630.000	1800.000	16800.000	0.000	0.000	0.000	0.000
NH	4.000	0.050	10980.000	0.070	12321.000	0.025	12437.000	0.160	13730.000	0.000

CL = 12373

X1	7.340	33.000	12321.000	12437.000	600.000	1300.000	1650.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	150.000	1795.000	900.000	1790.000	3500.000	1792.000	5000.000	1792.000	6850.000
GR	1791.000	8600.000	1791.000	9580.000	1792.000	9600.000	1792.000	10000.000	1796.000	10580.000
GR	1796.000	12000.000	1796.300	12048.000	1795.800	12125.000	1796.600	12229.000	1795.700	12268.000
GR	1798.000	12321.000	1786.700	12343.000	1786.200	12358.000	1789.500	12371.000	1787.200	12411.000
GR	1796.500	12437.000	1794.100	12463.000	1794.100	12531.000	1794.100	12538.000	1796.500	12548.000
GR	1797.200	12571.000	1795.300	12600.000	1794.200	12626.000	1794.600	12642.000	1799.600	12656.000
GR	1804.400	12726.000	1800.500	12730.000	1804.000	13730.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.300	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING

CL = 11490

X1	7.600	24.000	11410.000	11577.000	1200.000	1350.000	1360.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11441.000	1793.800	11546.000
GR	1803.800	11577.000	1804.300	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11790.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11439.000	1802.300	11439.000

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GR	1802.300	11444.500	1793.900	11444.500	1793.900	11473.500	1802.300	11473.500	1802.300	11479.000
GR	1793.900	11479.000	1793.900	11508.000	1802.300	11508.000	1802.300	11513.500	1793.900	11513.500

GR	1793.900	11542.500	1802.300	11542.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11750.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.611	24.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	9450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11441.000	1793.900	11547.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
NH	6.000	0.040	5800.000	0.070	7700.000	0.040	10500.000	0.120	11640.000	0.025
NH	11930.000	0.160	13620.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 11800									
X1	7.680	32.000	11640.000	11930.000	290.000	220.000	280.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1810.000	400.000	1800.000	1650.000	1799.000	2200.000	1799.000	3750.000	1800.000	4000.000
GR	1802.000	4450.000	1801.000	5800.000	1801.000	6800.000	1801.000	7700.000	1800.000	8070.000
GR	1800.000	8350.000	1797.500	8550.000	1797.500	8700.000	1800.000	9060.000	1799.000	9250.000
GR	1799.000	9400.000	1800.000	9610.000	1804.000	10500.000	1804.400	11000.000	1808.300	11640.000
GR	1808.000	11710.000	1796.000	11760.000	1794.500	11790.000	1794.500	11830.000	1796.000	11840.000
GR	1808.000	11870.000	1809.500	11930.000	1806.500	12200.000	1806.800	12470.000	1808.000	12570.000
GR	1808.000	13100.000	1812.000	13620.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	12418.000	12669.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	3400.000	0.160	12470.000	0.025	12766.000	0.140	13400.000	0.160
NH	14200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 12520									
X1	7.970	34.000	12454.000	12563.000	1750.000	1340.000	1610.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	2.000	1813.000	11000.000	1813.000	11700.000	0.000	0.000	0.000	0.000	0.000
GR	1816.000	500.000	1812.000	1000.000	1810.000	1800.000	1810.000	2400.000	1813.000	3400.000
GR	1811.000	4600.000	1811.000	7500.000	1812.000	8500.000	1810.000	9450.000	1810.000	10000.000
GR	1815.200	12000.000	1816.600	12227.000	1815.600	12313.000	1813.600	12367.000	1815.100	12418.000
GR	1812.800	12442.000	1812.900	12454.000	1812.000	12470.000	1806.500	12503.000	1806.000	12515.000
GR	1806.000	12526.000	1806.700	12540.000	1808.800	12561.000	1812.400	12563.000	1813.700	12597.000
GR	1814.500	12669.000	1813.000	12701.000	1814.000	12736.000	1815.000	12756.000	1816.000	12766.000
GR	1816.700	12794.000	1815.000	13250.000	1816.000	13400.000	1816.000	14200.000	0.000	0.000
NH	6.000	0.040	3800.000	0.060	7800.000	0.050	8941.000	0.030	9014.000	0.050
NH	9204.000	0.140	11140.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE									
	CL = 8980									
X1	8.190	39.000	8941.000	9014.000	1110.000	930.000	1140.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1823.000	300.000	1817.000	1200.000	1816.000	2500.000	1820.000	3800.000	1818.000	4580.000
GR	1819.000	5810.000	1816.000	7030.000	1820.000	7800.000	1820.000	8000.000	1820.000	8600.000
GR	1819.200	8000.000	1819.600	8169.000	1819.400	8408.000	1820.100	8794.000	1820.500	8849.000

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GR	1821.500	8875.000	1820.300	8921.000	1822.600	8927.000	1823.900	8941.000	1812.500	8952.000
GR	1810.600	8975.000	1810.600	8988.000	1813.200	9001.000	1814.100	9010.000	1823.900	9014.000
GR	1820.900	9040.000	1823.500	9062.000	1826.700	9084.000	1826.300	9115.000	1820.800	9150.000
GR	1819.500	9163.000	1821.500	9204.000	1822.000	9255.000	1823.000	9550.000	1823.000	10300.000
GR	1823.000	10530.000	1824.000	10650.000	1824.000	10940.000	1824.500	11140.000	0.000	0.000
GT	1.000	6260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4430.000	0.060	9006.000	0.025	9094.000	0.030	9400.000	0.140
NH	10560.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	LAKE MEAD BLVD BRIDGE									
	CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL									
	CL = 9050									

X1	8.271	23.000	9006.000	9094.000	350.000	300.000	330.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1815.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9030.000	1824.000	9006.000	1814.000	9018.000	1813.700	9050.000	1814.000	9082.000
GR	1822.200	9094.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9900.000
GR	1825.000	10050.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
GT	1.000	5380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4430.000	0.060	9006.000	0.015	9095.000	0.120	9400.000	0.140
NH	10560.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL 8

X1	8.271	48.000	9017.000	9095.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
BT	-4.000	9006.000	1824.000	0.000	9017.000	1824.100	1821.700	9025.000	1823.200	1821.700
BT	0.000	9095.000	1823.200	1821.700	0.000	0.000	0.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1815.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9017.000	1813.700	9025.000
GR	1821.700	9028.300	1813.700	9028.300	1815.700	9034.300	1821.700	9034.300	1821.700	9037.600
GR	1813.700	9037.600	1813.700	9043.600	1821.700	9043.600	1821.700	9047.200	1813.700	9047.200
GR	1813.700	9057.200	1821.700	9057.200	1821.700	9060.000	1813.700	9060.000	1813.700	9070.000
GR	1821.700	9070.000	1821.700	9073.000	1813.700	9073.000	1813.700	9083.000	1821.700	9083.000
GR	1821.700	9086.600	1813.700	9086.600	1813.700	9095.000	1823.200	9095.000	1823.200	9095.000
GR	1822.200	9096.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9900.000
GR	1825.000	10050.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8940.000	9140.000	0.000	0.000	0.000
NC	0.055	0.140	0.315	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CL = 9080

X1	8.310	48.000	9040.000	9116.000	235.000	235.000	235.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-5.000	8940.000	1824.000	0.000	9040.000	1824.100	1822.000	9046.000	1823.200	1822.000
BT	0.000	9116.000	1824.100	1822.000	9120.000	1824.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9040.000	1814.000	9040.000	1814.000	9046.000

GR	1822.000	9046.000	1822.000	9051.300	1814.000	9051.300	1814.000	9055.300	1822.000	9055.300
GR	1822.000	9060.600	1814.000	9060.600	1814.000	9064.600	1822.000	9064.600	1822.000	9070.200
GR	1814.000	9070.200	1814.000	9078.200	1822.000	9078.200	1822.000	9083.000	1814.000	9083.000
GR	1814.000	9091.000	1822.000	9091.000	1822.000	9096.000	1814.000	9096.000	1814.000	9104.000
GR	1822.000	9104.000	1822.000	9109.600	1814.000	9109.600	1814.000	9116.000	1824.000	9116.000
GR	1824.000	9120.000	1826.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
GT	1.000	5520.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8900.000	9270.000	0.000	0.000	0.000
NC	0.055	0.140	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	8.311	23.000	9014.000	9140.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	1814.500	9034.000	1814.000	9075.000
GR	1814.500	9120.000	1824.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.040	2020.300	0.060	3700.000	0.160	5380.000	0.040	7000.000	0.160

NH	7863.000	0.025	8094.000	0.160	11250.000	0.000	0.000	0.000	0.000	0.000	
	CL = 8010										
X1	8.610	39.000	7923.000	8054.000	1570.000	1370.000	1560.000	0.000	0.000	0.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
X4	3.000	1830.500	2300.000	1820.000	7400.000	1832.000	7700.000	0.000	0.000	0.000	
GR	1832.000	0.000	1830.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000	
GR	1831.000	5970.000	1827.000	6250.000	1827.000	6730.000	1820.000	6880.000	1825.100	7000.000	
GR	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	
GR	1832.700	7754.000	1830.200	7793.000	1830.200	7836.000	1832.800	7863.000	1832.600	7923.000	
GR	1829.900	7952.000	1822.700	7970.000	1818.900	8025.000	1820.100	8039.000	1822.100	8062.000	
GR	1830.300	8077.000	1832.300	8094.000	1832.300	8135.000	1832.400	8173.000	1832.000	8180.000	
GR	1832.000	8710.000	1832.000	9140.000	1832.000	9230.000	1832.000	10070.000	1832.400	10360.000	
GR	1833.000	10500.000	1834.000	10750.000	1834.000	11100.000	1836.000	11250.000	0.000	0.000	
NH	4.000	0.040	1700.000	0.160	7007.000	0.025	7188.000	0.160	11180.000	0.000	
	CL = 7.90										
X1	8.850	49.000	7007.000	7188.000	1370.000	1200.000	1250.000	0.000	0.000	0.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1827.000	0.000	
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1840.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000	
GR	1837.000	4900.000	1833.300	5000.000	1834.200	5102.000	1832.900	5248.000	1834.600	5315.000	
GR	1833.900	5362.000	1834.000	5468.000	1834.200	5626.000	1834.000	5773.000	1833.500	5856.000	
GR	1833.700	5977.000	1824.600	6004.000	1824.800	6111.000	1822.700	6220.000	1827.700	6395.000	
GR	1837.700	6554.000	1838.100	6827.000	1838.800	6858.000	1839.400	6879.000	1837.900	6900.000	
GR	1837.200	6953.000	1837.000	6981.000	1837.600	7007.000	1834.400	7013.000	1833.000	7025.000	
GR	1827.300	7031.000	1825.100	7044.000	1824.400	7064.000	1824.400	7099.000	1826.200	7119.000	
GR	1825.900	7122.000	1833.500	7134.000	1835.600	7142.000	1837.700	7163.000	1837.800	7188.000	
GR	1837.800	7250.000	1838.000	7420.000	1838.000	8170.000	1835.500	8550.000	1835.700	9570.000	
GR	1838.000	10080.000	1840.000	10450.000	1842.000	10870.000	1844.000	11180.000	0.000	0.000	

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WT	1.000	5450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000	
NH	6.000	0.340	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160	
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	CAREY AVE BRIDGE										
	ARCH OPENINGS MODELED AS RCB*S. OK FOR CCE FLOWS, BUT FOR										
	LOWER FLOWS (NOT PRESSURE FLOW) SHOULD CHANGE GR CARDS.										
	CL = 10000										
X1	8.900	35.000	9910.000	10070.000	170.000	360.000	230.000	0.000	0.000	0.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000	
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000	
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000	
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000	
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000	
GR	1837.800	9910.000	1826.000	9950.000	1825.200	9955.000	1825.200	10020.000	1826.000	10025.000	
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000	
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000	
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000	
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160	
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
X1	8.900	50.000	9950.000	10019.000	5.000	5.000	5.000	0.000	0.000	0.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000	
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000	
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.400	
BT	0.000	9988.000	1838.700	1832.400	10019.000	1838.500	1832.400	10070.000	1838.200	0.000	
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000	
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000	
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000	
GR	1837.800	9910.000	1837.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000	
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000	
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000	
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000	

GR	1838.000	10019.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
ET	0.000	6.100	0.000	0.000	0.000	9890.000	10430.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000
	CL = 10000									
X1	8.910	50.000	9950.000	10018.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	3.000	1840.000	2300.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.800
BT	0.000	9988.000	1838.700	1832.800	10018.000	1838.500	1832.800	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.500	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.600	9950.000	1825.600	9958.000	1832.800	9958.000

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GR	1832.800	9965.000	1825.600	9965.000	1825.600	9973.000	1832.800	9973.000	1832.800	9980.000
GR	1825.600	9980.000	1825.600	9988.000	1832.800	9988.000	1832.800	9995.000	1825.600	9995.000
GR	1825.600	10003.000	1832.800	10003.000	1832.800	10010.000	1825.600	10010.000	1825.600	10018.000
GR	1838.000	10018.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
QT	1.000	5520.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9910.000	10900.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.125	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.

X1	8.911	35.000	9945.000	10025.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.500	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1828.000	9945.000	1825.600	9960.000	1825.600	10015.000	1828.000	10025.000
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
QT	1.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7186.000	7361.000	0.000	0.000	0.000
NH	5.000	0.040	2000.000	0.160	7219.000	0.025	7349.000	0.160	8260.000	0.110
NH	10960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 7310									
X1	9.060	32.000	7219.000	7349.000	650.000	830.000	820.000	0.000	0.000	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2000.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	1840.900	5000.000	1840.000	5350.000	1840.000	7110.000
GR	1842.300	7186.000	1840.500	7219.000	1840.700	7238.000	1833.300	7255.000	1828.100	7301.000
GR	1832.100	7323.000	1841.100	7349.000	1841.900	7361.000	1840.300	7375.000	1840.700	7406.000
GR	1840.300	7451.000	1841.000	7670.000	1840.000	8360.000	1841.000	8750.000	1841.200	9140.000
GR	1842.000	9180.000	1842.500	9450.000	1843.100	9900.000	1844.000	10100.000	1846.000	10510.000
GR	1846.000	10700.000	1846.500	10960.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4000.000	0.160	4850.000	0.035	5750.000	0.130	6630.000	0.030
NH	7212.000	0.026	7447.000	0.036	7900.000	0.050	8700.000	0.160	11320.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	6990.000	7900.000	0.000	0.000	0.000
	CL = 7270									
X1	9.300	39.000	7212.000	7447.000	1040.000	1070.000	1250.000	0.000	0.000	0.000

X3	10.000	0.000	1.000	0.000	0.000	7900.000	1846.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	10000.000	1845.000	10080.000	1844.000	3080.000	1845.000	40000.000	1846.000	4700.000
GR	1848.000	4850.000	1846.800	4952.000	1846.000	5000.000	1846.000	5300.000	1845.700	5430.000
GR	1846.200	5750.000	1843.500	6150.000	1847.000	6990.000	1847.000	7162.000	1847.100	7212.000
GR	1837.800	7232.000	1835.200	7252.000	1834.400	7263.000	1837.800	7291.000	1842.100	7307.000
GR	1841.400	7327.000	1840.400	7346.000	1840.900	7376.000	1841.200	7390.000	1840.200	7407.000
GR	1843.800	7422.000	1844.700	7447.000	1843.400	7468.000	1845.500	7840.000	1846.000	7900.000
GR	1845.500	7980.000	1845.500	8700.000	1845.500	9520.000	1846.000	9760.000	1848.000	10000.000

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GR	1850.000	1 400.000	1850.000	11 80.000	1851.300	11150.000	1852.000	11320.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	14400.000	16400.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.080	12650.000	0.040	14000.000	0.060	14700.000	0.037	15370.000	0.025
NH	15496.000	0.037	16120.000	0.055	17650.000	0.080	18900.000	0.000	0.000	0.000

LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 15430

X1	9.410	43.000	15370.000	15496.000	840.000	330.000	570.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
X4	3.000	1850.000	9700.000	1850.000	11800.000	1848.500	13410.000	0.000	0.000	0.000
GR	1853.000	9200.000	1849.000	12200.000	1849.000	12650.000	1849.900	12760.000	1849.000	12960.000
GR	1848.500	14000.000	1848.000	14150.000	1847.900	14250.000	1847.900	14700.000	1848.500	14900.000
GR	1847.900	15000.000	1847.900	15065.000	1847.900	15118.000	1847.800	15184.000	1847.900	15242.000
GR	1847.900	15264.000	1847.900	15306.000	1848.000	15352.000	1847.900	15370.000	1840.500	15389.000
GR	1840.500	15417.000	1840.500	15461.000	1845.400	15480.000	1846.500	15496.000	1847.400	15535.000
GR	1847.500	15559.000	1847.200	15579.000	1847.400	15601.000	1847.500	15631.000	1848.900	15676.000
GR	1846.100	15735.000	1848.300	15762.000	1846.100	15790.000	1847.200	15815.000	1848.200	15950.000
GR	1849.500	16120.000	1848.300	16200.000	1849.000	16600.000	1849.000	17400.000	1850.000	17650.000
GR	1850.000	18000.000	1852.000	18280.000	1854.000	18900.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	14400.000	16400.000	0.000	0.000	0.000
NH	8.000	0.080	12650.000	0.040	14000.000	0.060	14700.000	0.037	15370.000	0.015
NH	15496.000	0.037	16120.000	0.055	17650.000	0.080	18900.000	0.000	0.000	0.000
X1	9.411	58.000	15391.000	15459.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
X4	3.000	1850.000	9800.000	1850.000	11800.000	1850.500	12700.000	1849.900	13410.000	0.000
BT	-11.000	15000.000	1849.900	1847.900	15065.000	1849.900	1847.900	15184.000	1850.700	1847.900
BT	0.000	15264.000	1851.300	1847.900	15391.000	1851.400	1847.800	15459.000	1851.400	1847.800
BT	0.000	15559.000	1851.000	1847.500	15676.000	1851.000	1848.900	15735.000	1851.000	1846.100
BT	0.000	15762.000	1851.000	1848.300	15950.000	1851.100	1848.200	0.000	0.000	0.000
GR	1860.000	3700.000	1850.000	12200.000	1850.000	12650.000	1849.900	12760.000	1849.900	12960.000
GR	1848.500	14000.000	1848.900	14150.000	1845.900	14250.000	1849.900	14700.000	1849.900	14900.000
GR	1847.900	15000.000	1847.900	15065.000	1847.900	15118.000	1847.800	15184.000	1847.900	15242.000
GR	1847.900	15264.000	1847.900	15306.000	1848.000	15352.000	1847.900	15370.000	1847.800	15391.000
GR	1840.500	15391.000	1840.500	15401.000	1847.800	15401.000	1847.800	15404.000	1840.500	15404.000
GR	1848.500	15415.000	1847.800	15415.000	1847.800	15418.000	1840.500	15418.000	1840.500	15429.000
GR	1847.800	15429.000	1847.800	15434.000	1840.500	15434.000	1840.500	15445.000	1847.800	15445.000
GR	1847.800	15448.000	1840.500	15449.000	1840.500	15459.000	1847.800	15459.000	1847.400	15535.000
GR	1847.500	15559.000	1847.200	15579.000	1847.400	15601.000	1847.500	15631.000	1848.900	15676.000
GR	1846.100	15735.000	1848.300	15762.000	1846.100	15790.000	1847.200	15815.000	1848.200	15950.000
GR	1849.500	16120.000	1850.100	16200.000	1850.100	16600.000	1850.100	17400.000	1850.100	17650.000
GR	1850.000	18000.000	1852.000	18280.000	1854.000	18900.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	14100.000	15900.000	0.000	0.000	0.000
NH	5.000	0.090	12350.000	0.035	14500.000	0.060	15000.000	0.015	15120.000	0.040
NH	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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CL = 15050

X1	9.430	48.000	15020.000	15087.000	110.000	110.000	110.000	0.000	0.000	0.000

X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.000	1850.100	0.000
X4	7.000	1850.000	9400.000	1850.000	11150.000	1849.900	13620.000	1849.800	14500.000	1849.900
X4	14680.000	1850.700	14750.000	1851.300	14890.000	0.000	0.000	0.000	0.000	0.000
BT	-10.000	15000.000	1851.400	1850.000	15000.000	1851.400	1850.000	15020.000	1851.400	1849.100
BT	0.000	15087.000	1850.100	1849.100	15120.000	1851.000	1851.000	15400.000	1851.800	1851.000
BT	0.000	15500.000	1851.200	1850.000	15600.000	1851.000	1850.000	15750.000	1850.200	1850.000
BT	0.000	16120.000	1850.000	1850.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1860.000	8300.000	1850.000	11750.000	1850.000	12250.000	1850.000	12250.000	1850.000	12250.000
GR	1850.000	12350.000	1850.000	12350.000	1850.000	12970.000	1850.000	13000.000	1849.200	13300.000
GR	1851.400	15000.000	1851.400	15000.000	1851.400	15000.000	1849.200	15020.000	1841.800	15020.000
GR	1841.800	15029.000	1849.100	15029.000	1849.100	15034.000	1841.800	15034.000	1841.800	15043.000
GR	1849.100	15043.000	1849.100	15048.000	1841.800	15048.000	1841.800	15057.000	1849.100	15057.000
GR	1849.100	15064.000	1841.800	15064.000	1841.800	15073.000	1849.100	15073.000	1849.100	15078.000
GR	1841.800	15078.000	1841.800	15087.000	1849.200	15087.000	1849.200	15087.000	1850.000	15100.000
GR	1850.000	15100.000	1851.000	15120.000	1851.000	15400.000	1850.000	15500.000	1850.000	15600.000
GR	1850.200	15750.000	1850.100	16120.000	1850.100	16200.000	1850.100	17200.000	1850.800	17450.000
GR	1851.000	17700.000	1852.200	17950.000	1852.700	18250.000	1854.100	18370.000	1855.200	18630.000
ET	0.000	6.100	0.000	0.000	0.000	14100.000	15900.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.090	12350.000	0.035	14500.000	0.060	15000.000	0.025	15100.000	0.040
NH	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.431	31.000	15000.000	15100.000	5.000	5.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
GR	1860.000	8300.000	1850.000	9400.000	1850.000	9400.000	1850.000	9400.000	1850.000	9400.000
GR	1850.000	11500.000	1849.000	11750.000	1849.000	12250.000	1849.000	12250.000	1849.000	12250.000
GR	1850.000	12350.000	1850.000	12350.000	1850.000	12350.000	1849.500	12450.000	1849.500	13700.000
GR	1849.500	14500.000	1850.000	14400.000	1850.000	15000.000	1841.800	15040.000	1841.800	15070.000
GR	1850.000	15100.000	1851.000	15120.000	1851.000	15400.000	1850.000	15500.000	1850.000	16120.000
GR	1849.500	16200.000	1849.500	17200.000	1850.000	17450.000	1852.000	18150.000	1854.000	18500.000
GR	1854.200	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7280.000	8300.000	0.000	0.000	0.000
NH	6.000	0.080	5000.000	0.060	6675.000	0.035	7300.000	0.060	7655.000	0.027
NH	7845.000	0.060	11257.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 7740									
X1	9.470	87.000	7655.000	7845.000	185.000	185.000	185.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1842.300	7728.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	4200.000	1851.000	4450.000	1850.000	4900.000	1850.000	4900.000	1850.000	4900.000
GR	1851.600	5000.000	1851.400	5059.000	1850.700	5063.000	1850.900	5115.000	1850.400	5147.000
GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000

GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8191.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9503.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	LSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&IC	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 6.710

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1784.80 ELREA= 1784.80

6.71	11.50	1780.90	0.00	1780.90	1781.88	0.98	0.00	0.00	1784.80
6400.	0.	6400.	0.	0.	807.	0.	0.	0.	1784.80
0.00	0.00	7.93	0.00	0.000	0.035	0.000	0.000	1769.31	14946.63
0.002612	650.	784.	450.	0	0	0	0.00	88.14	15034.77

FLOW DISTRIBUTION FOR SECNO= 6.71 CHSEL= 1780.90

STA= 14947. 15039.
PER Q= 100.0
AREA= 807.1
VEL= 7.9

CCHV= 0.300 CEHV= 0.500
*SECNO 6.750

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.00 ELREA= 1783.00

LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

6.75	10.99	1781.89	0.00	0.00	1782.26	0.37	0.20	0.18	1783.00
6400.	0.	6400.	0.	0.	1319.	0.	5.	1.	1783.00
0.01	0.00	4.85	0.00	0.070	0.030	0.080	0.000	1770.90	9929.81
0.000511	140.	220.	220.	2	0	0	0.00	140.38	10070.19

FLOW DISTRIBUTION FOR SECNO= 6.75 CHSEL= 1781.89

STA= 9930. 10072.
PER Q= 100.0
AREA= 1319.4
VEL= 4.9

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&IC	ENDST

*SECNO 6.751

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.00 ELREA= 1783.00

```
     6.75     10.95  1781.85      0.00      0.00  1782.31      0.46      0.00      0.04  1783.00
     6400.        .     6400.        0.        0.     1182.        0.        6.        1.     1783.00
     0.01        0.00     5.42      0.00      0.070     0.030     0.080     0.000  1770.90   9929.88
 0.001102          5.        5.        5.         2         0         0      0.00   128.24  10070.12

FLOW DISTRIBUTION FOR SECNO=      6.75          CWSEL=    1781.85

STA=    9930.    10072.
  PER Q=    100.0
   AREA=   1181.9
    VEL=      5.4

*SECNO 6.760

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

3470 ENCROACHMENT STATIONS=    9927.0   10073.0  TYPE=     1  TARGET=     146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1783.20 ELREA=     1783.20

     6.76     10.86  1781.96      0.00      0.00  1782.42      0.46      0.11      0.00  1783.20
     6400.        .     6400.        0.        0.     1170.        0.        6.        1.     1783.20
     0.02        0.00     5.47      0.00      0.070     0.030     0.080     0.000  1771.10   9930.03
 0.001133         10.       10.       10.         2         0         0      0.00   127.93  10069.97

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=    1781.96

STA=    9930.    10072.
  PER Q=    100.0
   AREA=   1170.0
    VEL=      5.5

*SECNO 6.761

3470 ENCROACHMENT STATIONS=    9927.0   10073.0  TYPE=     1  TARGET=     146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1783.20 ELREA=     1783.20

     6.76     11.16  1782.26      0.00      0.00  1782.61      0.35      0.16      0.03  1783.20
     6400.        0.     6400.        0.        0.     1343.        0.       15.        2.     1783.20
     0.03        0.00     4.77      0.00      0.070     0.030     0.080     0.000  1771.10   9929.54
 0.000485         14.       220.      220.         2         0         0      0.00   140.92  10070.46

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=    1782.26

STA=    9930.    10072.
  PER Q=    100.0
   AREA=   1342.6
    VEL=      4.8

*SECNO 6.920

3301 HV CHANGED MORE THAN HVINS
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3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3695 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1790.90

CL = 11373

6.92	7.88	1785.58	1785.58	0.00	1788.56	2.97	1.04	1.31	1791.00
6400.	0.	6400.	0.	0.	462.	0.	32.	4.	1790.90
0.05	0.00	13.84	0.00	0.070	0.030	0.080	0.000	1777.78	11328.66
0.002826	530.	830.	840.	20	15	0	0.00	79.20	11407.85

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWIC	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.92 CWSEL= 1785.58

STA= 11329. 11410.
PER Q= 100.0
AREA= 462.5
VEL= 13.3

CCHV= 0.100 CEHV= 0.300
*SECNO 7.140

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12370.0 TYPE= 1 TARGET= 1170.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1798.80

CL = 12260

7.14	13.21	1792.41	0.00	0.00	1793.03	0.62	4.23	0.24	1791.00
6400.	666.	5734.	0.	746.	862.	0.	55.	13.	1798.80
0.10	0.89	6.65	0.00	0.070	0.030	0.080	0.000	1779.20	11245.31
0.002056	580.	1200.	1250.	3	0	0	0.00	1070.17	12315.48

0
FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1792.41

STA= 11245. 12077. 12114. 12150. 12369.
PER Q= 6.4 3.1 1.0 89.6
AREA= 534.0 161.3 50.9 862.3
VEL= 0.3 1.2 1.2 6.7

1490 NH CARD USED
*SECNO 7.340

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1798.00 ELREA= 1796.50

CL = 12370

7.34	8.57	1794.07	0.00	0.00	1795.58	1.51	2.29	0.27	1798.00
6400.	0.	6400.	0.	0.	649.	0.	78.	23.	1796.50
0.13	0.00	9.87	0.00	0.070	0.025	0.160	0.000	1785.50	12328.66
0.002419	600.	1050.	1300.	3	0	0	0.00	101.54	12430.20

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCHAR	TCPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1794.07

STA= 12329. 12437.
PER Q= 100.
AREA= 648.6
VEL= 9.9

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING
CL = 11490

7.60	4.74	1798.54	0.00	0.00	1800.52	1.98	4.71	0.23	1803.90
6400.	0.	6400.	0.	0.	567.	0.	97.	26.	1803.80
0.16	0.00	11.23	0.00	0.070	0.025	0.160	0.000	1793.80	11426.45
0.005355	12.	1350.	1350.	3	2	0	0.00	134.25	11560.70

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1798.54

STA= 11426. 11577.
PER Q= 100.
AREA= 567.2
VEL= 11.3

1490 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 11280.0 11790.0 TYPE= 1 TARGET= 510.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCHAR	TCPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	4.38	1798.78	1798.78	0.00	1800.98	2.21	0.03	0.12	1803.90
6400.	0.	6400.	0.	0.	537.	0.	97.	26.	1803.80
0.16	0.00	11.92	0.00	0.070	0.025	0.160	0.000	1793.80	11425.22
0.008288	5.	5.	5.	20	12	0	0.00	122.71	11561.93

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1798.78

STA= 11425. 11577.
PER Q= 100.
AREA= 536.3
VEL= 11.9

1490 NH CARD USED
*SECNO 7.610

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11280.0 11790.0 TYPE= 1 TARGET= 510.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	6.42	1800.22	0.00	0.00	1801.63	1.42	0.41	0.24	1803.90
6400.	0.	6400.	0.	0.	670.	0.	98.	26.	1803.80
0.17	0.00	9.55	0.00	0.070	0.025	0.160	0.000	1793.80	11420.67
0.004394	7.	7.	7.	5	0	0	0.00	124.60	11566.27

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1800.22

STA= 11421. 11577.
PER Q= 100.
AREA= 669.3
VEL= 9.6

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.611

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11280.0 11790.0 TYPE= 1 TARGET= 510.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	7.19	1801.09	0.00	0.00	1801.84	0.75	0.01	0.20	1803.90
6400.	0.	6400.	0.	0.	920.	0.	98.	26.	1803.80
0.17	0.00	6.95	0.00	0.070	0.025	0.160	0.000	1793.90	11418.71
0.001243	5.	5.	5.	3	0	0	0.00	150.07	11568.79

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1801.09

STA= 11419. 11577.
PER Q= 100.0
AREA= 920.4
VEL= 7.0

1490 NH CARD USED
*SECNO 7.680

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1808.30 ELREA= 1809.50

CL = 11800

7.68	6.61	1801.11	0.00	0.00	1802.96	1.85	0.57	0.55	1808.30
6400.	0.	6400.	0.	0.	586.	0.	103.	27.	1809.50
0.17	0.00	10.92	0.00	0.070	0.025	0.160	0.000	1754.50	11738.70
0.003886	290.	290.	220.	3	0	0	0.00	114.08	11852.78

FLOW DISTRIBUTION FOR SECNO= 7.68 CWSEL= 1801.11

STA= 11739. 11930.
PER Q= 100.0
AREA= 586.0
VEL= 10.9

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWIC	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 7.970
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12418.0 12669.0 TYPE= 1 TARGET= 251.000

CL = 12520

7.97	7.23	1813.23	1313.23	0.00	1815.52	2.29	6.84	0.13	1812.90
6400.	5.	6375.	21.	6.	524.	9.	124.	32.	1812.40
0.21	0.04	12.16	2.27	0.060	0.025	0.025	0.000	1806.00	12437.47
0.004672	1750.	1610.	1340.	20	8	0	0.00	147.35	12584.82

FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1813.23

STA= 12437. 12454. 12563. 12585.
PER Q= 0.1 99.6 0.3
AREA= 5.6 524.2 9.1
VEL= 0.3 12.2 2.3

1490 NH CARD USED
*SECNO 8.190

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1823.90 ELREA= 1823.90

START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	8.54	1819.14	0.00	0.00	1822.20	3.06	6.45	0.23	1823.90
6400.	0.	6400.	0.	0.	456.	0.	137.	35.	1823.90
0.23	0.00	14.04	0.00	0.060	0.030	0.025	0.000	1810.60	8545.59
0.006993	1110.	1140.	930.	2	0	0	0.00	66.47	9012.06

FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1819.14

STA= 8946. 9014.

PER Q= 100.
AREA= 455.3
VEL= 14.1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.270

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

LAKE MEAD BLVD BRIDGE
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
CL = 9150

8.27	8.24	1821.94	0.00	0.00	1823.62	1.68	1.28	0.14	1824.00
6260.	0.	6260.	0.	0.	602.	0.	141.	35.	1822.20
0.24	0.00	10.40	0.00	0.060	0.025	0.025	0.000	1813.70	9008.47
0.002448	350.	330.	300.	3	8	0	0.00	85.15	9093.62

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1821.94

STA= 9008. 9094.
PER Q= 100.
AREA= 601.8
VEL= 10.4

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	8.13	1821.83	0.00	0.00	1823.77	1.95	0.02	0.13	1824.00
5380.	0.	5380.	0.	0.	480.	0.	141.	35.	1823.20
0.24	0.00	11.20	0.00	0.060	0.015	0.025	0.000	1813.70	9017.00
0.004863	5.	5.	5.	2	0	0	-9.39	75.00	9095.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1821.83

STA= 9017. 9095.

PER G= 100.0
AREA= 480.4
VEL= 11.2

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.27 MAX ELLC= 1822.00

3470 ENCROACHMENT STATIONS= 8940.0 9140.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1824.10 ELREA= 1824.00

CL = 8080

8.31	8.34	1822.34	1821.75	0.00	1825.90	3.56	1.64	0.48	1824.10
5380.	0.	5380.	0.	0.	355.	0.	143.	36.	1824.00
0.25	0.00	15.15	0.00	0.155	0.015	0.140	0.000	1814.00	9040.00
0.010926	235.	235.	235.	5	5	0	-25.80	76.00	9116.00

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1822.34

STA= 9040. 9116.
PER Q= 100.0
AREA= 355.2
VEL= 15.1

CCHV= 0.300 CEHV= 0.500
*SECNO 8.311
3280 CROSS SECTION 8.31 EXTENDED 0.67 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8900.0 9270.0 TYPE= 1 TARGET= 370.000

SECNO / Q / TIME / SLOPE	DEPTH / WLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / ANCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	CLCSS / TLA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
8.31	12.67	1826.67	0.00	0.00	1826.90	0.23	0.00	1.00	1824.10
5520.	69.	5344.	108.	146.	1363.	371.	143.	36.	1824.00
0.25	0.47	3.92	0.29	0.055	0.025	0.140	0.000	1814.00	8900.00
0.000190	5.	5.	5.	3	0	0	0.00	370.00	9270.00

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1826.67

STA= 8900. 894 . 9014. 9140. 9148. 9270.
PER Q= 0.1 1.1 96.8 0.1 1.8
AREA= 26.6 119.6 1363.4 21.3 349.7
VEL= 0.3 0.5 3.9 0.3 0.3

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 8.610

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1832.60 ELREA= 1832.30

CL = 3010

8.61	7.71	1826.61	0.00	0.00	1826.00	1.39	0.75	0.35	1832.60
5520.	0.	5520.	0.	0.	584.	0.	187.	44.	1832.30
0.29	0.00	9.46	0.00	0.058	0.025	0.160	0.000	1818.90	7560.22
0.002808	1570.	1560.	1370.	4	0	0	0.00	110.63	8070.25

FLOW DISTRIBUTION FOR SECNO= 8.61 CWSEL= 1826.61

STA= 7960. 8394.
PER Q= 100.
AREA= 583.7
VEL= 9.5

1490 NH CARD USED
*SECNO 8.850

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.60 ELREA= 1837.00

CL = 7090

8.85	6.42	1831.42	0.00	0.00	1832.20	1.78	4.08	0.12	1837.60
5520.	0.	5520.	0.	0.	516.	0.	203.	47.	1837.80
0.32	0.00	10.70	0.00	0.058	0.025	0.160	0.000	1824.40	7027.72
0.003849	1370.	1250.	1200.	3	0	0	0.00	101.42	7129.14

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCFAR	TCF&IC	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.85 CWSEL= 1830.42

STA= 7028. 7188.
PER Q= 100.0
AREA= 515.6
VEL= 10.7

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

CAREY AVE BRIDGE
ARCH OPENINGS MODELED AS RCB'S. OK FOR CCE FLOWS, BUT FOR
LOWER FLOWS (NOT PRESSURE FLOW) SHOULD CHANGE GR CARDS.

CL = 10000

8.90	6.65	1831.85	0.00	0.00	1833.07	1.21	0.70	0.17	1837.80
5450.	0.	5450.	0.	0.	617.	0.	206.	48.	1838.00
0.33	0.00	8.34	0.00	0.058	0.025	0.160	0.000	1825.20	9930.17
0.002449	170.	230.	360.	3	0	0	0.00	116.76	10046.94

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1831.85

STA= 9930. 10097.
PER Q= 100.
AREA= 616.9
VEL= 8.8

1490 NH CARD USED
*SECNO 8.901

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.105 EGC= 1836.122 WSEL= 1832.186

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.105 EGC= 1836.110 WSEL= 1832.303

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.40

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

8.90	7.20	1832.40	1832.40	0.00	1836.11	3.71	0.02	1.25	1837.80
5450.	0.	5450.	0.	0.	353.	0.	206.	48.	1838.00
0.33	0.00	15.45	0.00	0.099	0.015	0.131	0.003	1825.20	9950.00
0.009185	5.	5.	5.	20	21	0	0.00	49.00	10019.00

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1832.40

STA=	9950.	10019.
PER Q=	100.0	
AREA=	352.8	
VEL=	15.4	

1490 NH CARD USED
*SECNO 8.910

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.800 EGLC= 1838.361 EGC= 1840.919 WSEL= 1839.807

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.800 EGLC= 1838.361 EGC= 1838.365 WSEL= 1832.791

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TCPLIC	ENDST

3470 ENCROACHMENT STATIONS= 9890. 10430.0 TYPE= 1 TARGET= 540.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 1838.10 ELREA= 1838.10

CL = 10000

8.91	7.20	1832.80	1832.80	0.00	1838.36	5.56	0.82	0.93	1837.80
5450.	.	5450.	0.	0.	288.	0.	206.	48.	1838.00
0.33	0.00	18.92	0.00	0.022	0.016	0.074	0.000	1825.60	9950.00
0.015562	70.	70.	70.	20	20	0	0.00	40.00	10018.00

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1832.80

STA= 9950. 10018.
PER Q= 100.0
AREA= 288.2
VEL= 18.9

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.911

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9910.0 10900.0 TYPE= 1 TARGET= 990.000
Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.

8.91	14.21	1839.81	0.00	0.00	1839.98	0.17	0.00	1.62	1828.00
5520.	535.	4116.	869.	242.	1107.	1544.	206.	48.	1828.00
0.33	2.21	3.72	0.56	0.025	0.029	0.051	0.000	1825.60	9910.00
0.000119	5.	5.	5.	4	0	0	0.00	990.00	10900.00

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1839.81

STA=	9910.	9945.	10025.	10070.	10270.	10430.	10800.	10900.
PER Q=	9.7	74.6	12.7	1.0	0.4	1.0	0.6	
AREA=	241.9	1106.9	306.5	362.3	201.8	466.7	206.2	
VEL=	2.2	3.7	2.3	0.2	0.1	0.1	0.2	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TCPLIC	ENDST

1490 NH CARD USED
*SECNO 9.060

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 7186.0 7361.0 TYPE= 1 TARGET= 175.000
CL = 7310

9.06	11.52	1839.62	0.00	0.00	1840.67	1.04	0.25	0.44	1840.50
6400.	.	6400.	0.	0.	780.	0.	241.	58.	1841.10
0.36	0.00	8.20	0.00	0.160	0.025	0.160	0.000	1828.10	7240.45
0.001372	650.	820.	830.	3	0	0	0.00	105.12	7345.57

FLOW DISTRIBUTION FOR SECNO= 9.06 CWSEL= 1839.62

```
STA=    7240.     7349.
  PER Q=     100.
   AREA=     780.5
    VEL=       8.2

CCHV=    0.100 CEHV=    0.300
1490 NH CARD USED
*SECNO 9.300

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=        0.0     7900.0  TYPE=      1  TARGET=     7895.999

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1847.10 ELREA=      1844.70

          CL = 7270
     9.30       8.24  1842.64  1842.64      0.00  1844.20       1.56       3.22       0.16  1847.10
     6400.         0.     6400.        0.        0.     638.         3.     261.        62.   1844.70
     0.40       0.00      10.33      0.00     0.160     0.026     0.036     0.000  1834.40  7221.60
 0.006470     1040.     1250.     1070.         4        14         0       0.00   195.56  7417.15

FLOW DISTRIBUTION FOR SECNO=       9.30          CWSEL=    1842.64

STA=    7222.     7447.
  PER Q=     100.
   AREA=     638.0
    VEL=      10.3


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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         CLOSS     BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTA        ELPIA       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


CCHV=    0.300 CEHV=    0.500
1491 NH CARD USED
*SECNO 9.410

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    14400.0    16400.0  TYPE=      1  TARGET=     2000.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1849.80 ELREA=      1850.10

          LAS VEGAS BLVD BRIDGE
          Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
          TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
          CL = 15430
     9.41       5.83  1846.33  1846.33      0.00  1848.56       2.23       3.44       0.34  1847.90
     6400.         .     6400.        0.        0.     534.         0.     269.        65.   1846.50
     0.41       0.00      12.00      0.00     0.160     0.026     0.036     0.000  1840.50 15374.04
 0.005644      840.      570.      330.         2        19         0       0.00   119.44 15493.48

FLOW DISTRIBUTION FOR SECNO=       9.41          CWSEL=    1846.33

STA=   15374.    15496.
  PER Q=     100.0
   AREA=     533.5
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     VEL=      12.0

1490 NH CARD USED
*SECNO 5.411

3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 1849.90 MAX ELLC= 1848.90

3685 20 TRIALS ATTEMPTED ▲SEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=   14400.0   16400.0  TYPE=     1  TARGET=    2000.000
1
   4-MAY-88     11:02:40                                                                    PAGE   28

    SECNO      DEPTH     C▲SEL     CRIWS     ▲SELK      EG        HV        HL        GLOSS     BANK ELEV
    6          GLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TRA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST

      9.41      10.39  1850.89   1850.89      0.00   1851.44      0.54      0.02      0.51   1847.80
    6400.       1584.     3199.     1617.      841.      394.      806.      269.       65.   1847.80
      0.41       1.88      8.12      2.01     0.042     0.015     0.040     0.000  1840.50 14400.00
 0.002377          5.        5.        5.        20         6         0 -2678.10  2000.00 16400.00
0
 FLOW DISTRIBUTION FOR SECNO=       9.41          CWSEL=    1850.89

 STA=   14400.   14700.   14900.   15000.   15118.   15391.   15459.   15950.   16120.   16400.
   PER Q=     5.6      6.1      9.7      3.1      0.3     50.0      3.4     17.1      4.7
    AREA=   298.4    198.9    199.5    107.9     36.2    394.2    211.6    347.6    246.5
     VEL=     1.2      2.0      3.1      1.9      0.5      8.1      1.0      3.2      1.2

1490 NH CARD USED
*SECNO 5.430

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 1850.00 MAX ELLC= 1851.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347  ENCROACHMENT STATIONS=   14100.0   15900.0  TYPE=     1  TARGET=    1800.000
          CL = 15050
      9.43      9.58  1851.38   1851.38      0.00   1851.86      0.48      0.30      0.02   1849.20
    6400.       2684.     2886.      830.     1031.      371.      383.      274.       65.   1849.20
      0.41       2.60      7.78      2.17     0.041     0.015     0.036     0.000  1841.80 14100.00
 0.003244        110.      110.      110.         2        13         0 -497.86  1782.13 15900.00
0
 FLOW DISTRIBUTION FOR SECNO=       9.43          CWSEL=    1851.38

 STA=   14100.   14500.   14680.   15020.   15087.   15750.   15900.
   PER Q=    31.4      8.1      2.4     45.1      6.2      6.7
    AREA=   621.8    276.1    133.5    371.1    202.1    180.6
     VEL=     3.2      1.9      1.2      7.8      2.0      2.4

 CCHV=    0.300 CEHV=    0.500
1490 NH CARD USED
*SECNO 9.431
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       ANCH      XNR       WTA       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 3470 ENCROACHMENT STATIONS=    14100.0    15900.0  TYPE=      1  TARGET=     1800.000
      9.43      9.91   1851.71      0.00      0.00   1851.94      0.23      0.01      0.07   1850.00
     6400.     1712.     3561.     1127.     1591.      704.     1024.      274.       70.   1850.00
      0.42      1.08      5.06      1.10     0.047     0.025     0.040     0.003   1841.80  14100.00
 0.000552         5.        5.        5.         3         0         0      0.00   1800.00  15900.00
0
 FLOW DISTRIBUTION FOR SECNO=       9.43          CWSEL=    1851.71

 STA=   14100.   14400.   15000.   15100.   15120.   15400.   15500.   15900.
   PER Q=    13.5     13.3     55.6      0.4      2.1      1.5     13.2
    AREA=   567.9   1023.3    703.6     24.1    197.6    120.6    682.2
     VEL=     1.5      0.8      5.1      1.1      3.7      1.0      1.2

 1490 NH CARD USED
 *SECNO 9.470

 3470 ENCROACHMENT STATIONS=     7280.0     8300.0  TYPE=      1  TARGET=     1020.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1852.00 ELREA=      1850.70

          CL = 7740
      9.47      9.45   1851.75      0.00      0.00   1852.20      0.45      0.15      0.11   1852.00
     6400.        .         .      949.         .      935.      752.      285.        75.   1850.70
      0.43      0.00      5.83      1.26     0.054     0.027     0.060     0.000   1842.30   7663.99
 0.001279      185.      185.      185.         3         0         0      0.00    636.00   8300.00
0
 FLOW DISTRIBUTION FOR SECNO=       9.47          CWSEL=    1851.75

 STA=    7664.    7845.    7893.    7955.    7996.    8065.    8129.    8190.    8239.    8253.    8300.
   PER Q=    85.2      2.9      1.5      1.0      1.7      1.8      2.8      2.2      0.5      2.4
    AREA=   935.0     57.5     86.7     57.3     96.5     99.1    124.9    100.4     25.9    104.0
     VEL=     5.8      1.0      1.1      1.1      1.1      1.2      1.4      1.4      1.3      1.5

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 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************

 T1      CORFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
 T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGP
 T3      LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - 500-YEAR

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        5.        0.        0.  0.000000      0.00      0.0       0.  1785.300     0.000

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000

1
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 6.710

6.71	16.00	1785.30	0.00	1780.90	1786.13	0.83	0.00	0.00	1784.80
84000.	33586.	17449.	32965.	15967.	1217.	6784.	0.	0.	1784.80
0.00	2.13	14.34	4.86	0.090	0.035	0.052	0.000	1769.30	5576.00
0.004452	650.	730.	450.	3	0	0	0.00	11179.15	16755.15

FLOW DISTRIBUTION FOR SECNO= 6.71 CWSEL= 1785.30

STA=	5576.	12020.	14365.	14680.	14835.	14910.	14942.	15039.	15167.	15298.	15461.	15640.	16195.	
PER Q=	9.1	6.8	9.0	5.9	8.0	1.2	20.8	3.2	3.1	4.9	5.8	17.4		
AREA=	7049.9	3938.6	3259.5	1054.2	543.8	121.4	1216.6	491.8	489.6	688.1	809.8	2456.5		
VEL=	1.1	1.5	2.3	4.7	12.4	8.3	14.3	5.4	5.4	5.9	6.0	6.9		
STA=	16195.	16755.	16755.											
PER Q=	4.3	0.0												
AREA=	1848.3	3.2												
VEL=	2.2	0.4												

CCHV= 0.300 CEHV= 0.500
*SECNO 6.750
LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 15000

6.75	14.97	1785.87	0.00	1781.89	1786.75	0.87	0.59	0.02	1783.20
84000.	46581.	25219.	12201.	22434.	1890.	6586.	103.	40.	1783.00
0.01	2.08	13.34	1.85	0.070	0.030	0.080	0.000	1770.90	841.13
0.002486	140.	220.	220.	4	0	0	0.00	11558.55	12400.08

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1785.87

STA=	841.	2940.	6700.	7800.	8800.	9250.	9550.	9850.	9928.	10072.	12000.	12400.		
PER Q=	6.8	20.0	6.1	4.0	4.9	5.3	7.2	1.1	30.9	12.3	2.2			
AREA=	3639.9	3918.5	2684.1	1584.4	1642.4	1461.6	1761.6	341.0	1890.1	5537.1	1048.9			
VEL=	1.6	1.9	1.9	1.7	2.5	3.0	3.4	2.8	13.3	1.9	1.8			

*SECNO 6.751

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

6.75	16.02	1786.92	0.00	1781.85	1787.00	0.08	0.01	0.24	1783.00
84000.	60650.	7919.	15430.	32016.	1782.	9018.	108.	42.	1783.00
0.01	1.89	4.44	1.71	0.070	0.030	0.080	0.000	1770.90	668.76
0.001396	5.	5.	5.	3	0	0	-125.00	11731.36	12400.11

```
 FLOW DISTRIBUTION FOR SECNO=      6.75          CWSEL=   1786.92

 STA=     669.    2940.    6700.    7800.    8800.    9250.    9550.    9850.    9928.   10072.   12000.   12400.
   PER Q=    10.9     27.6      8.3      6.0      5.6      5.5      7.1      1.2      9.4     15.5      2.9
    AREA=  5922.5  12846.5   3833.3   3029.1   2112.5   1775.0   2075.0    422.5   1782.3   7551.3   1466.8
     VEL=     1.5      1.8      1.8      1.7      2.2      2.6      2.9      2.4      4.4      1.7      1.6

 *SECNO 6.760

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

 3470 ENCROACHMENT STATIONS=       0.0   14050.0  TYPE=     1  TARGET=   14049.999
      6.76    15.96  1787.06     0.00  1781.96  1787.14     0.08     0.14     0.00  1783.20
     84000.   62390.    8224.   15387.   31482.    1799.    8884.     205.       69.  1783.20
       0.02     1.92     4.57     1.73     0.070    0.030    0.080    0.000  1771.10   678.28
  0.001460      100.      100.      100.        2        0        0  -100.01 11721.83 12400.11
0
 FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1787.06

 STA=     678.    2940.    6700.    7800.    8800.    9250.    9550.    9850.    9928.   10072.   12000.   12400.
   PER Q=    10.8     27.3      8.3      5.9      5.6      5.5      7.2      1.2      9.8     15.5      2.9
    AREA=  5791.7  12629.4   3769.8   2971.4   2086.5   1757.7   2057.7    418.0   1799.0   7439.9   1443.7
     VEL=     1.6      1.8      1.8      1.7      2.3      2.6      2.9      2.5      4.6      1.7      1.7

 *SECNO 6.761
      6.76    16.05  1787.15     0.00  1782.26  1787.45     0.30     0.20     0.11  1783.20
     84000.   52355.   18336.   13309.   32316.    2045.    9893.     363.      111.  1783.20
       0.04     1.62     8.97     1.46     0.070    0.030    0.080    0.000  1771.10   663.42
  0.001010      140.      220.      220.        2        0        0     0.00 11736.69 12400.11
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

 FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1787.15

 STA=     663.    2940.    6700.    7800.    8800.    9250.    9550.    9850.    9928.   10072.   12000.   12400.
   PER Q=     9.5     23.8      7.2      5.2      4.8      4.7      6.1      1.1     21.8     13.4      2.5
    AREA=  5996.1  12963.1   3868.9   3061.5   2127.0   1784.7   2084.7    425.0   2045.1   7613.6   1479.8
     VEL=     1.3      1.5      1.6      1.4      1.9      2.2      2.5      2.1      9.0      1.5      1.4

 *SECNO 6.920
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
          CL = 11370
      6.92    13.46  1791.16  1791.16  1785.58  1791.20     0.05     0.43     0.08  1791.08
     84000.   70429.    4494.    9077.   50839.     932.    8736.    1117.     288.  1790.90
       0.15     1.39     4.82     1.04     0.070    0.030    0.080    0.000  1777.70   815.17
  0.000477      580.      830.      840.       20       12        0     0.00 12784.52 13600.09

 FLOW DISTRIBUTION FOR SECNO=      6.92          CWSEL=   1791.16

 STA=     815.    2000.    3500.    4850.    6450.    9200.    9550.   10200.   11000.   11321.   11410.   12300.   13600.
   PER Q=     4.0      7.2      6.5     11.5     31.4      4.6      9.5      7.6      1.7      5.4      4.1      6.7
    AREA=  3421.5   5485.1   4936.6   7450.8  16931.0   2329.9   4651.9   4405.4   1227.2    932.2   3332.0   5403.8
     VEL=     1.1      1.1      1.1      1.3      1.6      1.6      1.7      1.4      1.2      4.8      1.0      1.0

 CCHV=   0.100 CEHV=   0.300
 *SECNO 7.140
```

3265 DIVIDED FLOW

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1798.80

CL = 1226

7.14	12.52	1791.72	0.00	1792.41	1791.90	0.18	0.65	0.04	1791.00
84000.	77663.	6337.	0.	30241.	754.	0.	1605.	464.	1798.80
0.22	2.57	8.40	0.00	0.070	0.030	0.060	0.000	1779.20	1002.12
0.003228	580.	1200.	1250.	2	0	0	0.00	10743.10	12292.43

FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1791.72

STA=	1002.	2300.	3700.	4600.	6200.	7200.	10450.	12150.	12369.
PER Q=	4.5	12.3	9.1	12.2	10.1	41.6	2.7	7.5	
AREA=	2142.7	4155.6	2896.4	4349.2	3218.3	12084.4	1397.4	754.1	
VEL=	1.8	2.5	2.6	2.3	2.6	2.9	1.6	8.4	

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.340
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CL = 12373

7.34	12.50	1798.00	1798.00	1794.07	1798.03	0.03	0.28	0.01	1798.00
84000.	80202.	3634.	163.	63857.	1082.	619.	2484.	625.	1796.50
0.35	1.26	3.36	0.26	0.050	0.025	0.160	0.000	1785.60	449.52
0.000171	630.	1950.	1300.	20	10	0	0.00	12202.01	12651.53

0

FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1798.00

STA=	450.	3500.	5000.	6850.	8600.	9500.	10000.	10980.	12321.	12437.	12652.
PER Q=	21.1	17.8	17.0	18.3	10.7	4.7	4.6	1.3	4.3	0.2	
AREA=	14984.7	10504.8	11105.9	11380.6	6302.9	3051.6	3923.1	2603.5	1081.8	619.3	
VEL=	1.2	1.4	1.3	1.4	1.4	1.3	1.0	0.4	3.4	0.3	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.600

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING

CL = 11490

7.60	10.11	1803.91	1803.91	1798.54	1803.95	0.04	0.22	0.00	1803.90
84000.	79438.	4562.	0.	56702.	1377.	1.	4193.	941.	1803.80
0.57	1.40	3.27	0.02	0.047	0.025	0.160	0.000	1793.80	209.16
0.000186	1210.	1360.	1350.	21	18	0	0.00	10694.45	11600.09

0

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1803.91

STA=	209.	1300.	1600.	3300.	4300.	6250.	6800.	8000.	8290.	8800.	9550.	11410.	11577.
PER Q=	6.1	3.8	25.7	10.4	13.6	3.1	10.9	4.9	7.1	6.7	2.4	5.4	
AREA=	4199.7	1997.5	12594.4	5908.4	9084.0	2562.1	7390.1	2293.4	3603.3	4056.3	3012.8	1376.6	
VEL=	1.2	1.6	1.7	1.5	1.3	1.0	1.2	1.8	1.7	1.4	0.7	3.3	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1491 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

7.60	10.12	1803.92	0.00	1798.78	1803.95	0.03	0.00	0.00	1803.90
840000.	82615.	1384.	0.	56712.	1056.	1.	4200.	942.	1803.80
0.57	1.46	1.31	0.02	0.047	0.160	0.160	0.000	1793.80	209.06
0.000201	5.	5.	5.	0	0	0	-212.35	10695.16	11600.30

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1803.92

STA=	209.	1300.	1600.	3300.	4300.	6250.	6800.	8000.	8290.	8800.	9550.	11410.	11577.
PER Q=	6.2	3.9	26.7	10.8	14.1	3.3	11.3	5.1	7.4	7.0	2.5	1.6	
AREA=	4200.8	1997.8	12596.0	5519.4	9085.9	2562.7	7391.3	2293.7	3603.8	4057.1	2014.0	1055.4	
VEL=	1.2	1.7	1.8	1.5	1.3	1.1	1.3	1.9	1.7	1.4	0.7	1.3	

1491 NH CARD USED
*SECNO 7.610

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

7.61	10.13	1803.93	0.00	1800.22	1803.96	0.03	0.01	0.00	1803.90
840000.	82747.	1253.	0.	56923.	994.	2.	4293.	969.	1803.80
0.58	1.45	1.26	0.02	0.047	0.160	0.160	0.000	1793.80	207.06
0.000200	70.	70.	70.	0	0	0	-212.23	10709.77	11604.56

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1803.93

STA=	207.	1300.	1600.	3300.	4300.	6250.	6800.	8000.	8290.	8800.	9550.	11410.	11577.
PER Q=	6.2	3.9	26.7	10.8	14.2	3.3	11.3	5.1	7.4	7.0	2.6	1.5	
AREA=	4222.6	2003.8	12630.1	5529.4	9124.9	2573.7	7418.3	2299.5	3614.8	4072.1	2037.3	994.3	
VEL=	1.2	1.7	1.8	1.5	1.3	1.1	1.3	1.9	1.7	1.4	0.7	1.3	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.611

3265 DIVIDED FLOW

7.61	10.03	1803.93	0.00	1801.09	1803.97	0.04	0.00	0.00	1803.90
840000.	79549.	4450.	0.	56940.	1372.	2.	4299.	961.	1803.80

0.58	1.40	3.24	0.02	0.047	0.025	0.160	0.000	1753.90	206.90	
0.000184	5.	5.	5.	0	0	0	0.00	10710.93	11604.90	

0
FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1803.93

STA=	207.	1300.	1600.	3300.	4300.	6250.	6800.	8000.	8290.	8800.	9550.	11410.	11577.
PER Q=	6.	3.8	25.7	10.4	13.6	3.1	10.9	4.9	7.1	6.7	2.5	5.3	
AREA=	4224.3	2004.3	12632.8	5931.0	5128.0	2574.6	7417.2	2300.0	3614.8	4073.3	3039.1	1371.7	
VEL=	1.2	1.6	1.7	1.5	1.3	1.0	1.2	1.8	1.7	1.4	0.7	3.2	

1490 NH CARD USED
*SECNO 7.680
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1808.30 ELREA= 1809.50

CL = 11800

7.68	14.15	1808.65	1808.65	1801.11	1808.66	0.02	0.03	0.01	1808.30	
64000.	81443.	2557.	0.	81941.	1677.	0.	4771.	1034.	1809.50	
0.66	0.99	1.52	0.00	0.044	0.025	0.160	0.000	1754.50	568.98	
0.000655	290.	280.	220.	20	14	0	0.00	11326.95	11895.93	

0
FLOW DISTRIBUTION FOR SECNO= 7.68 CWSEL= 1808.65

STA=	569.	1651.	2200.	3750.	4000.	4450.	5800.	6800.	7700.	8070.	8350.	8700.	9060.
PER Q=	4.1	7.2	22.2	3.3	4.4	11.7	5.6	5.0	4.0	3.3	5.7	5.4	
AREA=	4674.5	5031.5	14954.7	2267.0	3441.7	9650.1	7648.2	6883.4	3014.8	2421.5	3651.9	3563.3	
VEL=	0.7	1.2	1.2	1.2	1.1	1.0	0.6	0.6	1.1	1.2	1.3	1.3	

STA=	9060.	9400.	10500.	11640.	11930.
PER Q=	4.6	9.6	0.9	3.0	
AREA=	3185.4	7838.0	3694.8	1677.0	
VEL=	1.2	1.0	0.2	1.6	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 7.970

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CL = 12520

7.97	6.97	1812.97	1812.97	1813.23	1813.61	0.65	0.33	0.19	1812.90	
84000.	75851.	8159.	10.	18238.	495.	4.	6823.	1466.	1812.40	
0.75	4.17	15.37	2.43	0.052	0.025	0.025	0.000	1806.00	878.78	
0.008932	1750.	1610.	1340.	20	9	0	0.00	10220.54	12577.90	

0
FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1812.97

STA=	879.	1800.	2400.	3390.	4600.	7500.	8500.	9450.	10000.	10990.	12454.	12563.	12578.
PER Q=	10.5	15.4	8.0	3.2	25.0	5.3	6.2	9.4	5.3	0.0	9.7	0.0	
AREA=	1634.6	1781.8	1469.9	1163.9	5712.2	1469.7	1871.2	1633.3	1469.9	1.4	495.4	4.2	

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    VEL=      5.4       7.3       4.6       2.3       3.7       3.0       3.7       4.8       3.0       0.6      16.4       2.4

1490 NH CARD USED
*SECNO 8.190

3265 DIVIDED FLOW

3280 CROSS SECTION      8.19 EXTENDED      1.02 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
          START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
          CL = 8980
     8.19     13.42  1824.02  1824.02  1819.14  1824.07     0.05     0.86     0.06  1823.90
   84000.   80505.     2373.     623.    49388.     796.     1944.    7718.     1727.  1823.90
     0.94     1.64      3.61     2.32     0.048    0.030    0.096    0.000  1810.63   300.00
 0.000268    1110.     1140.     930.       20       25        0     0.00 10584.38 10948.30

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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      ANL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

FLOW DISTRIBUTION FOR SECNO=      8.19          CWSEL=    1824.02

STA=      300.     1200.     2500.     3800.     4980.     5810.     7030.     7800.     8408.     8921.     8941.     9014.    10948.
  PER Q=      6.6      27.2      18.7       8.4       6.9      13.4       7.4       4.1       3.1       0.0       3.4       0.7
   AREA=   3618.7    9777.0    7827.0    5524.5    4582.2    7955.3    4636.0    2665.5    2075.2      26.2     796.3    1944.2
    VEL=      1.5       2.3       2.0       1.2       1.3       1.4       1.3       1.3       1.2       0.7       3.6       0.3

1490 NH CARD USED
*SECNO 8.27
3280 CROSS SECTION      8.27 EXTENDED      1.06 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
          LAKE MEAD BLVD BRIDGE
          CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
          CL = 9050
     8.27     11.36  1825.06  1825.06  1821.94  1825.18     0.11     0.14     0.02  1824.80
   84000.   76887.     5977.    1235.    35953.    874.     1056.    8077.     1807.  1822.20
     0.58     2.14      6.73     1.17     0.049    0.025    0.039    0.000  1813.70   600.00
 0.000656     350.      330.     300.       20       13        0     0.00  9856.77 10456.77

0
FLOW DISTRIBUTION FOR SECNO=      8.27          CWSEL=    1825.06

STA=      600.     1300.     2400.     3200.     4000.     5200.     5850.     6770.     7400.     8000.     8650.     9006.     9094.
  PER Q=      5.1      21.8      15.8       5.9       8.3       6.7       9.5       8.3       6.2       3.2       0.7       7.0
   AREA=   2143.1    6117.7    4449.2    2449.2    4206.3    3127.5    4426.6    3503.8    2886.9    1990.0     652.9     873.8
    VEL=      2.3       3.0       3.0       2.0       1.7       1.8       1.8       2.0       1.8       1.3       1.0       6.7
STA=     9094.    10457.
  PER Q=      1.5
   AREA=   1055.5
    VEL=      1.2

CCHV=    0.300 CEHV=    0.500
1490 NH CARD USED
*SECNO 8.271
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3265 DIVIDED FLOW

3280 CROSS SECTION 8.27 EXTENDED 1.11 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	11.41	1825.11	0.00	1821.83	1825.15	0.08	0.00	0.01	1824.00	
84000.	80132.	2549.	1319.	36368.	620.	1118.	8081.	1809.	1823.20	
0.96	2.20	4.11	1.18	0.049	0.030	0.040	0.000	1813.70	600.00	
0.000688	5.	5.	5.	2	0	0	-116.69	9859.15	10462.04	

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1825.11

STA=	600.	1300.	2400.	3200.	4000.	5200.	5850.	6770.	7400.	8000.	8650.	9017.	9095.
PER Q=	5.4	22.6	16.4	6.1	8.7	7.0	9.9	8.6	6.5	3.3	0.8	3.0	
AREA=	2176.6	6170.4	4487.6	2487.6	4263.9	3158.7	4479.7	3534.0	2915.7	2021.2	681.6	620.2	
VEL=	2.1	3.1	3.1	2.1	1.7	1.9	1.9	2.1	1.9	1.4	1.0	4.1	

STA=	9095.	10462.
PER Q=	1.6	
AREA=	1118.4	
VEL=	1.2	

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

CL = 9080

8.31	11.26	1825.26	0.00	1822.34	1825.65	0.39	0.37	0.09	1824.10
84000.	77243.	5521.	1236.	18303.	478.	1135.	8238.	1859.	1824.00
0.99	4.22	11.55	1.09	0.055	0.015	0.140	0.000	1814.00	909.56
0.006557	235.	235.	235.	0	0	0	-125.60	8772.69	9998.14

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1825.26

STA=	910.	2430.	3200.	4000.	5850.	6770.	7800.	8280.	9040.	9116.	9998.
PER Q=	24.2	11.4	5.4	8.1	13.8	24.5	4.9	0.5	6.6	1.5	
AREA=	4395.4	2214.0	1414.0	2529.7	2496.1	3880.5	1086.4	284.8	478.1	1135.4	
VEL=	4.6	4.3	3.2	2.7	4.4	5.3	3.8	1.6	11.5	1.1	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 8.311

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3268 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      8.31     11.55  1825.55  1825.55  1826.67  1826.44     0.89     0.02     0.25  1824.10
    84000.    64411.   18419.    1170.   20515.    1223.    1379.    8240.    1860.   1824.00
      0.99      3.14     15.06     0.85     0.055     0.025    0.140    0.000  1814.00   864.47
 0.003245         5.       5.        5.       20         5        0     0.00  8567.33 10048.94
0
FLOW DISTRIBUTION FOR SECNO=      8.31          CWSEL=   1825.55

STA=      884.    2400.    3200.    4000.    5850.    6770.    7800.    8280.    9014.    9140.   10049.
  PER Q=    19.7      9.4      4.8      7.8     18.7     19.4      4.2      0.6     21.9      1.4
   AREA=  4819.6   2439.7   1639.7   3051.9   2755.7   4171.2   1223.8    413.1   1222.8   1378.8
    VEL=     3.4      3.2      2.5      2.1      3.3      3.9      2.9      1.3     15.1      0.8

CCHV=   0.100 CEHV=   0.300
1490 NH CARD USED
*SECNO 8.610

3265 DIVIDED FLOW

3280 CROSS SECTION      8.61 EXTENDED      0.65 FEET


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
          CL = 8010
      8.61     13.75  1832.65  1832.65  1826.61  1833.03     0.38     3.90     0.05  1832.60
    84000.    69222.   14363.     416.    26233.    1376.    1350.    9173.    2200.   1832.30
      1.10      2.64     10.44     0.30     0.059     0.025    0.160    0.000  1818.90     0.00
 0.001973     157.     1563.     1370.       20        26        8     0.00 10339.85 10417.79
0
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       INA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

FLOW DISTRIBUTION FOR SECNO=      8.61          CWSEL=   1832.65

STA=        0.    2020.    2600.    3700.    5380.    5970.    6250.    6730.    6880.    7000.    7700.    7923.    8094.
  PER Q=    24.6      6.8      6.2      7.1      5.5      4.8     16.9      3.2      3.6      3.3      0.1     17.1
   AREA=  5983.4   2551.0   2318.2   6128.1   1562.1   1021.4   2710.9    622.2    611.7   2533.4    191.3   1375.7
    VEL=     3.5      2.2      2.2      1.0      3.2      3.5      5.2      4.3      4.9      1.1      0.6     10.4
STA=     8094.   10418.
  PER Q=     0.5
   AREA=  1389.3
    VEL=     0.3

1490 NH CARD USED
*SECNO 8.650
3280 CROSS SECTION      8.65 EXTENDED      0.04 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
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3720 CRITICAL DEPTH ASSUMED
CL = 7390

8.85	15.64	1840.04	1840.04	1830.42	1841.30	1.26	3.29	0.27	1837.60	
84000.	44223.	28086.	11687.	22541.	1826.	9820.	10140.	2516.	1837.80	
1.16	1.96	15.38	1.19	0.104	0.025	0.160	0.000	1824.40	0.00	
0.003210	1370.	1250.	1200.	20	12	0	0.00	10458.15	10458.15	

FLOW DISTRIBUTION FOR SECNO= 8.85 CWSEL= 1840.04

STA=	0.	1700.	2550.	4900.	5248.	5626.	5977.	6395.	7007.	7188.	8550.	9570.	10458.
PER Q=	24.4	3.4	6.1	4.1	4.6	4.6	4.0	1.4	33.4	3.8	7.7	2.5	
AREA=	4791.3	2583.9	5281.2	2004.7	2242.2	2174.1	2120.5	1344.8	1825.8	3281.3	4527.6	2010.8	
VEL=	4.3	1.1	1.0	1.7	1.7	1.8	1.6	0.9	15.4	1.0	1.4	1.0	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CAREY AVE BRIDGE
ARCH OPENINGS MODELED AS RCB'S. OK FOR CCE FLOWS, BUT FOR
LOWER FLOWS (NOT PRESSURE FLOW) SHOULD CHANGE GR CARDS.
CL = 10000

8.90	15.70	1840.90	1840.90	1831.85	1842.21	1.31	0.60	0.02	1837.80	
84000.	44521.	29568.	9912.	23199.	1934.	9030.	10317.	2571.	1838.00	
1.17	1.92	15.29	1.10	0.089	0.025	0.143	0.000	1825.20	2755.02	
0.002453	170.	230.	360.	4	5	0	0.00	10423.61	13222.49	

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1840.90

STA=	2755.	4500.	5350.	7700.	8550.	9100.	9870.	9910.	10070.	11770.	12530.	13222.	
PER Q=	26.4	3.6	5.1	6.1	4.7	6.8	0.3	35.2	6.8	3.5	1.5		
AREA=	5487.2	2389.7	5183.9	3945.2	2867.3	2699.2	127.0	1933.6	5507.9	2288.7	1232.9		
VEL=	4.3	1.3	0.8	1.3	1.4	2.1	2.0	15.3	1.3	1.3	1.0		

1490 NH CARD USED
*SECNO 8.901

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.40

8.90	17.31	1842.51	0.00	1832.40	1842.59	0.08	0.01	0.37	1837.80
84000.	63203.	4174.	16623.	34941.	623.	14345.	10322.	2572.	1838.00
1.17	1.81	6.70	1.16	0.086	0.015	0.127	0.000	1825.20	2674.56
0.001278	5.	5.	5.	3	0	0	-488.59	10659.39	13333.95

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1842.51

STA=	2675.	3050.	4500.	5350.	6530.	7700.	8140.	8550.	8850.	9340.	9870.	9950.	10019.
PER Q=	3.9	33.6	4.9	3.3	5.4	3.4	3.7	3.0	5.5	6.0	2.3	5.0	
AREA=	1097.3	7262.7	4257.5	3845.4	5117.8	2623.9	2689.1	2087.6	2974.8	2628.1	356.7	622.6	
VEL=	3.3	3.9	1.0	0.7	0.9	1.1	1.2	1.2	1.6	1.9	5.3	6.7	
STA=	10019.	10270.	11000.	11770.	12530.	13334.							
PER Q=	3.2	3.2	5.2	5.1	2.9								
AREA=	1093.9	3099.9	4241.8	3511.7	2397.7								
VEL=	2.5	1.9	1.2	1.2	1.3								

1490 NH CARD USED
*SECNO 8.910

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

CL = 10000

8.91	17.01	1842.61	0.00	1832.83	1842.68	0.07	0.09	0.00	1837.80	
84000.	64908.	3679.	15413.	35651.	560.	14674.	10403.	2589.	1838.00	
1.18	1.82	6.56	1.05	0.086	0.015	0.141	0.000	1825.60	2669.68	
0.001262	70.	70.	70.	2	0	0	-455.59	10680.39	13350.06	

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1842.61

STA=	2670.	3050.	4500.	5350.	6530.	7700.	8140.	8550.	8850.	9340.	9870.	9950.	10018.	
PER Q=	4.0	34.5	5.1	3.5	5.6	3.5	3.8	3.1	5.7	6.2	2.3	4.4		
AREA=	1134.2	7404.3	4340.5	3960.6	5232.0	2666.8	2725.1	2116.9	3022.7	2679.9	364.5	560.4		
VEL=	3.0	3.9	1.0	0.7	0.9	1.1	1.2	1.2	1.6	1.9	5.4	6.6		
STA=	10018.	10270.	11000.	11770.	12530.	13350.								
PER Q=	3.4	3.3	5.4	4.0	2.3									
AREA=	1122.6	3171.2	4317.0	3535.9	2477.0									
VEL=	2.5	3.9	1.0	0.9	0.8									

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.911
Q25 REDUCED FOR LOB AND ROB BREAKCUTS. ROB RETURNS DOWNSTREAM OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.

8.91	16.84	1842.44	0.00	1839.81	1842.86	0.42	0.01	0.17	1828.00	
84000.	54263.	15466.	14271.	34597.	1317.	14347.	10409.	2591.	1828.00	
1.18	1.57	11.74	0.99	0.085	0.025	0.128	0.000	1825.60	2678.10	
0.000939	5.	5.	5.	2	0	0	0.00	10644.17	13322.27	

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1842.44

STA=	2678.	3050.	4500.	5350.	6980.	7700.	8550.	9100.	9870.	9945.	10025.	10070.	11000.	
PER Q=	3.2	28.1	4.1	4.1	3.2	6.0	4.5	7.7	3.5	18.4	4.0	3.5		
AREA=	1078.6	7160.1	4197.3	5421.4	3375.4	5252.8	3713.4	3883.7	522.3	1317.0	424.7	3935.8		
VEL=	2.5	3.3	0.8	0.6	0.8	1.0	1.0	1.7	5.7	11.7	8.0	0.7		
STA=	11000.	11770.	12530.	13322.										
PER Q=	4.4	3.2	1.8											
AREA=	4187.3	3457.9	2341.2											
VEL=	0.9	0.8	0.7											

1496 NH CARD USED
*SECNO 9.060

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CL = 7510

9.06	16.46	1844.56	1844.56	1839.62	1845.78	1.22	1.16	0.40	1840.50	
84000.	46448.	23187.	14365.	22363.	1399.	9203.	11083.	2755.	1841.10	
1.21	2.08	16.58	1.56	0.100	0.025	0.133	0.000	1828.10	579.45	
0.003408	650.	820.	830.	23	6	0	0.00	9635.06	10214.51	

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELPIA	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.06 CWSEL= 1844.56

STA=	579.	1400.	2000.	2800.	4450.	5250.	7110.	7219.	7349.	8360.	8750.	9180.	10215.
PER Q=	8.4	19.4	5.3	3.5	3.9	14.2	0.5	27.6	7.9	3.8	3.1	2.3	
AREA=	1870.3	2735.2	3246.9	3396.7	2727.7	8023.1	363.3	1358.7	4504.5	1582.9	1467.2	1648.4	
VEL=	3.8	6.0	1.4	0.9	1.2	1.5	1.2	16.6	1.5	2.0	1.8	1.2	

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.300

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 0.0 7900.0 TYPE= 1 TARGET= 7899.999
CL = 7270

9.30	13.78	1848.18	0.00	1842.64	1848.64	0.46	2.78	0.08	1847.10	
84000.	52668.	18774.	12558.	16466.	1875.	5954.	11780.	2976.	1844.70	
1.28	3.20	10.01	2.11	0.043	0.026	0.057	0.000	1834.40	1416.16	
0.003962	1040.	1250.	1370.	1	0	0	0.00	8619.24	10035.40	

FLOW DISTRIBUTION FOR SECNO= 9.30 CWSEL= 1848.18

STA=	1416.	3080.	4000.	5300.	5750.	6990.	7212.	7447.	7840.	8700.	10035.
PER Q=	22.6	15.8	4.8	3.9	14.9	0.7	22.3	7.7	5.2	2.1	
AREA=	5149.2	3382.8	2870.1	1015.2	3789.5	258.8	1875.3	1473.1	1887.2	2553.2	
VEL=	3.7	3.9	1.4	3.2	3.3	2.4	10.0	4.4	2.3	0.7	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.410
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 15430

9.41	10.95	1851.45	1851.45	1846.33	1852.31	0.87	1.68	0.20	1847.90	
84000.	42414.	17613.	23973.	13377.	1175.	6663.	12136.	3111.	1846.50	
1.31	3.17	14.99	3.60	0.050	0.025	0.047	0.000	1840.50	9458.91	
0.003306	840.	570.	330.	20	13	0	0.00	8743.61	18202.52	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELPIA	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1851.45

STA=	9459.	11800.	12650.	13410.	14000.	14250.	14700.	14900.	15065.	15242.	15370.	15496.	15601.
PER Q=	5.1	4.1	8.5	9.1	3.1	6.3	3.9	3.4	4.1	2.9	21.0	3.2	
AREA=	3212.1	1879.6	1832.3	1738.5	829.1	1595.9	645.3	556.2	633.9	450.8	1175.2	444.4	
VEL=	1.3	1.8	3.9	4.4	3.2	3.3	5.1	5.2	5.4	5.3	15.0	6.1	

STA=	15601.	15735.	15950.	16600.	17400.	18203.
PER Q=	3.3	6.0	7.1	6.6	2.4	

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   AREA=     498.3     859.3    1763.7    1957.2    1139.4
    VEL=       5.6       5.8       3.4       2.8       1.8

1490 NH CARD USED
*SECNO 9.411

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 1849.90 MAX ELLC= 1848.90

3680 20 TRIALS ATTEMPTED WSEL,CWSEL
3690 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     9.41     11.16  1851.66  1851.66  1850.89  1852.48     0.82     0.03     0.01  1847.80
   84000.    56759.    7291.   19950.   10429.     412.    4158.   12138.    3112.   1847.80
     1.31      5.44     17.7      4.8    0.054    0.015    0.052    0.000  1840.50  9617.14
 0.016301        5.       5.       5.       20       10        0 -2862.48  8615.59 18232.73

FLOW DISTRIBUTION FOR SECNO=      9.41          CWSEL=   1851.66

STA=    9617.   11800.   12650.   12960.   14000.   14150.   14700.   14900.   15000.   15391.   15459.   16120.   16600.
  PER Q=     13.6      5.6      4.0     26.4      3.5      5.8      3.1      2.3      2.3      8.7      7.6      4.4
    AREA=  3476.7  1413.0   510.8  2560.9   444.3  1019.3   352.5   276.2   375.5   412.0   985.5   773.9
     VEL=      3.3      3.3      6.7      8.6      6.5      4.8      7.5     10.1      5.1     17.7      6.5      4.8
STA=   16600.   17400.   18000.   18233.
  PER Q=      6.9      4.4      1.5
    AREA=  1249.9   954.9   193.4
     VEL=      4.6      3.8      2.1

1490 NH CARD USED
*SECNO 9.430
3280 CROSS SECTION      9.43 EXTENDED      0.35 FEET

3301 HV CHANGED MORE THAN HVINS

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLCSS    BANK ELEV
    G         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 1850.00 MAX ELLC= 1851.00

          CL  = 15050
     9.43     11.25  1853.05     0.00  1851.38  1853.26     0.21     0.60     0.18  1849.20
   84000.    53760.    4045.   26196.   17774.     482.    7238.   12189.    3134.   1849.20
     1.32      3.02     8.39     3.62    0.053    0.015    0.039    0.000  1841.80  9064.94
 0.002669       110.     110.     110.        2        0        0  -542.91  9185.06 18250.00

0
FLOW DISTRIBUTION FOR SECNO=      9.43          CWSEL=   1853.05

STA=    9965.   11150.   11750.   12250.   12970.   13300.   13820.   14500.   14890.   15020.   15087.   15600.   16120.
  PER Q=     12.1      3.9      3.3     11.0      6.7     10.9     12.3      3.2      0.7      4.8      3.6      6.5
    AREA=  5840.8  1827.6  1523.0  2193.1  1125.2  1817.9  2173.2  1053.9   219.5   482.3   892.5  1438.4
     VEL=      1.7      1.9      1.8      4.2      5.0      5.1      4.8      2.5      2.6      8.4      3.4      3.8
STA=   16120.   17200.   17700.   18250.
  PER Q=     14.9      4.8      1.3
    AREA=  3181.7  1165.5   540.3
     VEL=      3.9      3.4      2.1

CCHV=    0.300  CEHV=    0.500
1490 NH CARD USED
*SECNO 9.431
     9.43     11.24  1853.04     0.00  1851.71  1853.30     0.26     0.01     0.03  1850.00
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84000.	47509.	8341.	28150.	19082.	837.	8896.	12192.	3136.	1850.00	
1.32	2.49	9.37	3.16	0.054	0.025	0.040	0.000	1841.80	9066.05	
0.001699	5.	5.	5.	2	0	0	0.00	9265.23	18331.28	

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1853.04

STA=	9066.	11500.	12250.	13700.	14000.	14400.	15000.	15100.	16120.	17200.	17450.	18150.	18331.
PER Q=	11.4	5.8	23.6	5.1	6.1	4.6	9.9	9.9	16.0	3.3	4.2	0.1	
AREA=	6682.3	2901.9	5102.0	1060.8	1314.4	1821.5	836.6	2756.6	3798.8	821.5	1425.1	93.9	
VEL=	1.4	1.7	3.9	4.1	3.9	2.1	10.0	3.0	3.5	3.4	2.5	1.0	

1490 NH CARD USED
*SECNO 9.470
3280 CROSS SECTION 9.47 EXTENDED 1.38 FEET

CL = 7740

9.47	11.07	1853.37	0.00	1851.75	1853.75	0.38	0.40	0.06	1852.00
84000.	33259.	12609.	38141.	10595.	1243.	11409.	12302.	3169.	1850.70
1.33	3.14	10.14	3.34	0.055	0.027	0.060	0.000	1842.30	4200.00
0.002823	185.	185.	185.	2	0	0	0.00	6726.88	10526.88

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.47 CWSEL= 1853.37

STA=	4200.	4900.	5360.	5694.	5988.	6214.	6412.	6675.	6862.	7041.	7250.	7655.	7845.
PER Q=	3.9	3.6	3.4	3.6	3.2	3.4	4.5	3.8	3.9	3.4	2.9	15.0	
AREA=	1762.5	1253.8	994.9	1010.7	650.0	834.7	1097.2	630.5	624.9	607.5	928.5	1242.9	
VEL=	1.9	2.4	2.8	3.0	3.2	3.4	3.4	5.1	5.2	4.7	2.7	10.1	
STA=	7845.	8190.	8453.	9000.	9500.	10200.	10700.	10927.					
PER Q=	3.7	3.4	7.8	11.7	14.1	4.5	3.2						
AREA=	1083.2	933.1	2064.4	2537.5	3237.5	1397.5	156.0						
VEL=	2.8	3.1	3.2	3.9	3.7	2.7	1.0						

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - LAMB BL

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
6.710	0.00	0.00	0.00	1765.30	6400.00	1781.90	0.00	1781.88	20.12	7.93	807.13	1426.75
6.710	0.00	0.00	0.00	1765.30	84000.00	1785.30	0.00	1786.13	44.52	14.34	23968.15	12589.83

	6.750	220.00	0.00	0.00	1770.90	6400.00	1781.89	0.00	1782.26	5.11	4.85	1319.38	2831.89
	6.750	220.00	0.00	0.00	1770.90	84000.00	1785.87	0.00	1786.75	24.86	13.34	30909.58	16847.45
	6.751	5.00	1783.00	1783.00	1770.90	6400.00	1781.85	0.00	1782.31	11.02	5.42	1181.88	1927.64
	6.751	5.00	1783.00	1783.00	1770.90	84000.00	1786.92	0.00	1787.00	13.96	4.44	42816.80	22479.96
	6.760	100.00	1783.00	1783.20	1771.10	6400.00	1781.96	0.00	1782.42	11.33	5.47	1165.97	1901.19
	6.760	100.00	1783.00	1783.20	1771.10	84000.00	1787.06	0.00	1787.14	14.60	4.57	42164.74	21987.21
	6.761	220.00	0.00	0.00	1771.10	6400.00	1782.26	0.00	1782.61	4.85	4.77	1342.64	2907.26
	6.761	220.00	0.00	0.00	1771.10	84000.00	1787.15	0.00	1787.45	10.10	8.97	43454.61	26426.35
•	6.920	830.00	0.00	0.00	1777.70	6400.00	1785.58	1785.58	1788.56	80.28	13.84	462.46	714.36
*	6.920	830.00	0.00	0.00	1777.70	84000.00	1791.16	1791.16	1791.20	4.77	4.82	60507.33	38457.60
	7.140	1200.00	0.00	0.00	1779.20	6400.00	1792.41	0.00	1793.03	20.56	6.65	1608.47	1411.34
	7.140	1200.00	0.00	0.00	1779.20	84000.00	1791.72	0.00	1791.90	32.28	8.40	30995.39	14785.31
	7.340	1050.00	0.00	0.00	1785.50	6400.00	1794.07	0.00	1795.58	24.19	9.87	648.57	1301.37
*	7.340	1050.00	0.00	0.00	1785.50	84000.00	1798.00	1798.00	1798.03	1.71	3.36	65557.95	64231.41
	7.600	1360.00	0.00	0.00	1793.80	6400.00	1796.54	0.00	1800.52	53.55	11.28	567.18	874.60
*	7.600	1360.00	0.00	0.00	1793.80	84000.00	1803.91	1803.91	1803.95	1.86	3.27	58080.82	61516.27
•	7.601	5.00	1803.80	1803.90	1793.80	6400.00	1796.78	1796.78	1800.98	82.86	11.92	536.79	702.96
	7.601	5.00	1803.80	1803.90	1793.80	84000.00	1803.92	0.00	1803.95	2.01	1.31	57769.16	59210.55
	7.610	70.00	1803.80	1803.90	1793.80	6400.00	1800.22	0.00	1801.63	43.94	9.55	669.83	965.52
	7.610	70.00	1803.80	1803.90	1793.80	84000.00	1803.53	0.00	1803.96	2.00	1.26	57918.95	59454.08

	SECNO	XLCH	ELTRD	ELLC	ELMIN	G	CHSEL	CRILS	EG	10K*S	VCH	AREA	.01K
	7.611	5.00	0.00	0.00	1793.90	6400.00	1801.09	0.00	1801.84	12.43	6.95	920.44	1814.92
	7.611	5.00	0.00	0.00	1793.90	84000.00	1803.93	0.00	1803.97	1.84	3.24	58313.00	61871.31
	7.680	280.00	0.00	0.00	1794.50	6400.00	1801.11	0.00	1802.96	38.86	10.92	585.99	1026.63
*	7.680	280.00	0.00	0.00	1794.50	84000.00	1808.65	1808.65	1808.66	0.55	1.52	83617.80	113520.11
*	7.970	1610.00	0.00	0.00	1806.00	6400.00	1813.23	1813.23	1815.52	46.72	12.16	538.93	936.35
*	7.970	1610.00	0.00	0.00	1806.00	84000.00	1812.97	1812.97	1813.61	89.32	16.37	18797.85	8887.85
	8.190	1140.00	0.00	0.00	1810.60	6400.00	1819.14	0.00	1822.20	69.93	14.04	455.85	765.36
*	8.190	1140.00	0.00	0.00	1810.60	84000.00	1824.02	1824.02	1824.07	2.68	3.61	51828.10	51335.79
	8.270	330.00	0.00	0.00	1813.70	6260.00	1821.94	0.00	1823.62	24.48	10.40	601.80	1265.17
*	8.270	330.00	0.00	0.00	1813.70	84000.00	1825.06	1825.06	1825.18	6.56	6.73	37882.52	32785.22
	8.271	5.00	1823.20	1821.70	1813.70	5380.00	1821.83	0.00	1823.77	48.63	11.20	480.40	771.52
	8.271	5.00	1823.20	1821.70	1813.70	84000.00	1825.11	0.00	1825.19	6.88	4.11	38106.67	32029.45
	8.310	235.00	1823.20	1822.00	1814.00	5380.00	1822.34	1821.75	1825.90	109.26	15.15	355.20	514.78
	8.310	235.00	1823.20	1822.00	1814.00	84000.00	1825.26	0.00	1825.65	65.57	11.55	19916.43	10373.45
	8.311	5.00	0.00	0.00	1814.00	5520.00	1826.67	0.00	1826.90	1.90	3.92	1880.66	4004.66
*	8.311	5.00	0.00	0.00	1814.00	84000.00	1825.55	1825.55	1826.44	32.45	15.06	23116.40	14745.45
*	8.610	1560.00	0.00	0.00	1818.90	5520.00	1826.61	0.00	1828.00	28.08	9.46	583.72	1041.74
	8.610	1560.00	0.00	0.00	1818.90	84000.00	1832.65	1832.65	1833.03	19.73	10.44	28998.09	18909.66
	8.850	1250.00	0.00	0.00	1824.40	5520.00	1838.42	0.00	1832.20	38.45	10.70	515.65	889.73
*	8.850	1250.00	0.00	0.00	1824.40	84000.00	1840.04	1840.04	1841.30	32.10	15.38	34186.98	14826.67
	8.900	230.00	0.00	0.00	1825.20	5450.00	1831.85	0.00	1833.07	24.45	8.84	616.86	1101.36
*	8.900	230.00	0.00	0.00	1825.20	84000.00	1840.90	1840.90	1842.21	24.53	15.29	34162.89	16961.84

*	8.901	5.00	1837.80	1832.40	1825.20	5450.00	1832.40	1832.40	1836.11	91.85	15.45	352.80	568.67
	8.901	5.00	1837.80	1832.40	1825.20	84000.00	1842.51	0.00	1842.59	12.78	6.70	49908.07	23497.33
*	8.910	70.00	1837.80	1832.60	1825.60	5450.00	1832.83	1832.60	1838.36	155.62	18.92	288.00	436.85
	8.910	70.00	1837.80	1832.80	1825.60	84000.00	1842.61	0.00	1842.68	12.62	6.56	50885.44	23645.25
	8.911	5.00	0.00	0.00	1825.60	5520.00	1839.81	0.00	1839.98	1.19	3.72	2892.38	5065.68
	8.911	5.00	0.00	0.00	1825.60	84000.00	1842.44	0.00	1842.86	9.39	11.74	50260.79	27409.96
	9.060	320.00	0.00	0.00	1828.10	6400.00	1839.62	0.00	1840.67	13.72	8.20	780.47	1728.03
*	9.060	320.00	0.00	0.00	1828.10	84000.00	1844.56	1844.56	1845.78	34.08	16.58	32964.70	14388.19
*	9.300	1250.00	0.00	0.00	1834.40	6400.00	1842.64	1842.64	1844.20	64.70	10.03	638.02	795.66
	9.300	1250.00	0.00	0.00	1834.40	84000.00	1848.18	0.00	1848.64	19.62	10.01	24294.49	18962.40
*	9.410	570.00	0.00	0.00	1840.50	6400.00	1846.33	1846.33	1848.56	56.44	12.00	533.53	851.96
*	9.410	570.00	0.00	0.00	1840.50	84000.00	1851.45	1851.45	1852.31	33.08	14.99	21214.72	14604.84

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
*	9.411	5.00	1849.90	1848.90	1840.50	6400.00	1851.89	1851.89	1851.44	23.77	8.12	2040.61	1312.75
*	9.411	5.00	1849.90	1848.90	1840.50	84000.00	1851.66	1851.66	1852.48	163.01	17.70	14998.82	6579.10
*	9.430	110.00	1850.00	1851.00	1841.80	6400.00	1851.38	1851.38	1851.86	32.44	7.78	1785.05	1123.64
	9.430	110.00	1850.00	1851.00	1841.80	84000.00	1853.05	0.00	1853.26	26.69	8.39	25495.06	16258.10
	9.431	5.00	0.00	0.00	1841.80	6400.00	1851.71	0.00	1851.94	5.52	5.06	3319.26	2725.02
	9.431	5.00	0.00	0.00	1841.80	84000.00	1853.04	0.00	1853.30	16.99	9.97	28815.33	20377.25
	9.470	185.00	0.00	0.00	1842.30	6400.00	1851.75	0.00	1852.20	12.79	5.83	1687.23	1789.76
	9.470	185.00	0.00	0.00	1842.30	84000.00	1853.37	0.00	1853.75	28.23	10.14	23247.33	15808.96

LAS VEGAS WASH - LAMB EL

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6.710	6400.00	1781.90	0.00	0.00	0.00	88.14	0.00
	6.710	84000.00	1785.30	4.40	0.00	4.40	11179.15	0.00
	6.750	6400.00	1781.89	0.00	0.99	0.00	140.38	220.00
	6.750	84000.00	1785.87	3.98	0.57	3.98	11558.95	220.00
	6.751	6400.00	1781.85	0.00	-0.04	0.00	128.24	5.00
	6.751	84000.00	1786.92	5.07	1.05	5.07	11731.36	5.00
	6.760	6400.00	1781.96	0.00	0.11	0.00	127.93	100.00
	6.760	84000.00	1787.36	5.10	0.14	5.10	11721.83	100.00
	6.761	6400.00	1782.26	0.00	0.30	0.00	140.92	220.00
	6.761	84000.00	1787.15	4.89	0.09	4.89	11736.69	220.00
*	6.920	6400.00	1785.58	0.00	3.32	0.00	79.20	830.00
*	6.920	84000.00	1791.16	5.58	4.01	5.58	12784.92	830.00
	7.140	6400.00	1792.41	0.00	6.83	0.00	1078.17	1200.00
	7.140	84000.00	1791.72	-0.69	0.56	-0.69	10743.10	1200.00

	7.34(	6400.00	1754.37	0.00	1.66	0.00	101.54	1050.00
*	7.340	84000.00	1798.30	3.94	6.28	3.94	12202.01	1050.00
	7.600	6400.00	1798.54	0.00	4.47	0.00	134.25	1360.00
*	7.600	84000.00	1803.91	5.37	5.91	5.37	10694.45	1360.00
*	7.601	6400.00	1798.78	0.00	0.24	0.00	122.71	5.00
	7.601	84000.00	1803.92	5.14	0.01	5.14	10695.16	5.00
	7.610	6400.00	1800.22	0.00	1.44	0.00	124.69	70.00
	7.610	84000.00	1803.93	3.71	0.01	3.71	10709.77	70.00
	7.611	6400.00	1801.09	0.00	0.88	0.00	150.07	5.00
	7.611	84000.00	1803.93	2.84	0.00	2.84	10710.93	5.00
	7.680	6400.00	1801.11	0.00	0.02	0.00	114.08	280.00
*	7.680	84000.00	1808.65	7.54	4.72	7.54	11326.95	280.00
*	7.970	6400.00	1813.23	0.00	12.12	0.00	147.35	1610.00
*	7.970	84000.00	1812.97	-0.26	4.32	-0.26	10220.54	1610.00
	8.190	6400.00	1819.14	0.00	5.91	0.00	66.47	1140.00
*	8.190	84000.00	1824.02	4.88	11.05	4.88	10584.38	1140.00
	8.270	6260.00	1821.94	0.00	2.80	0.00	85.15	330.00
*	8.270	84000.00	1825.06	3.12	1.04	3.12	9856.77	330.00

SECNO	Q	CMSEL	DIFMSP	DIFMSX	DIFKMS	TOPMID	XLCH
8.271	5380.00	1821.83	0.00	-0.12	0.00	76.00	5.00
8.271	84000.00	1825.11	3.28	0.05	3.28	9859.15	5.00
8.310	5380.00	1822.34	0.00	0.51	0.00	76.00	235.00
8.310	84000.00	1825.26	2.92	0.15	2.92	8772.69	235.00
8.311	5520.00	1826.67	0.00	4.33	0.00	370.00	5.00
* 8.311	84000.00	1825.55	-1.12	0.29	-1.12	8967.33	5.00
8.610	5520.00	1826.61	0.00	-0.06	0.00	110.03	1560.00
* 8.610	84000.00	1832.65	6.04	7.10	6.04	10339.85	1560.00
8.850	5520.00	1830.42	0.00	3.81	0.00	101.42	1250.00
* 8.850	84000.00	1840.04	9.62	7.39	9.62	10458.15	1250.00
8.900	5450.00	1831.35	0.00	1.44	0.00	116.76	230.00
* 8.900	84000.00	1840.40	9.05	0.86	9.05	10423.61	230.00
* 8.901	5450.00	1832.40	0.00	0.55	0.00	49.00	5.00
8.901	84000.00	1842.51	10.11	1.61	10.11	10659.39	5.00
* 8.910	5450.00	1832.80	0.00	0.40	0.00	40.00	70.00
8.910	84000.00	1842.61	9.81	0.10	9.81	10680.39	70.00
8.911	5520.00	1839.81	0.00	7.01	0.00	950.00	5.00
8.911	84000.00	1842.44	2.63	-0.17	2.63	10644.17	5.00
9.060	6400.00	1839.62	0.00	-0.19	0.00	105.12	620.00
* 9.060	84000.00	1844.56	4.93	2.12	4.93	9635.06	820.00
* 9.300	6400.00	1842.64	0.00	3.01	0.00	195.56	1250.00
9.300	84000.00	1848.18	5.55	3.62	5.55	8619.24	1250.00
* 9.410	6400.00	1846.33	0.00	3.69	0.00	119.44	570.00

*	9.41[illegible]	84[illegible]	1851.45	5.12	3.26	5.12	8743.61	570.00
*	9.411	6400.00	1850.39	0.00	4.57	0.00	2000.00	5.00
*	9.411	84000.00	1851.66	0.77	0.22	0.77	8615.59	5.00
*	9.430	6400.00	1851.38	0.00	0.49	0.00	1782.13	110.00
	9.430	84000.00	1853.05	1.67	1.39	1.67	9185.06	110.00
	9.431	6400.00	1851.71	0.00	0.33	0.00	1800.00	5.00
	9.431	84000.00	1853.04	1.32	-0.02	1.32	9265.23	5.00
	9.470	6400.00	1851.75	0.00	0.04	0.00	636.00	185.00
	9.470	84000.00	1853.37	1.63	0.34	1.63	6726.88	185.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 6.920 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.920 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.920 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 6.920 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.920 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.920 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.340 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.340 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.340 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.600 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.600 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.600 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.601 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.601 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.601 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.680 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.680 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.680 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.970 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.970 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.970 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 7.970 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.970 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.97[illegible] PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.190 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.190 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.190 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.270 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.270 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.270 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.311 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.311 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.311 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.61[illegible] PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.610 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.610 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=     8.850  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     8.850  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.850  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     8.900  PROFILE= 2  CRITICAL DEPTH ASSUMED
1
   4-MAY-88    11:02:40                                                  PAGE   54

 CAUTION  SECNO=     8.900  PROFILE= 2  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=     8.901  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     8.901  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.901  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     8.910  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     8.910  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.910  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.060  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.060  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.060  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.300  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.300  PROFILE= 1  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=     9.410  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.410  PROFILE= 1  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.410  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.410  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.410  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.411  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.411  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.411  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=     9.411  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.411  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.411  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.430  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.430  PROFILE= 1  MINIMUM SPECIFIC ENERGY

1
   4-MAY-88    11:06:34                                                  PAGE    1


  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************



EOF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   5-MAY-88 TIME   11:37:57          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X           XXXXX   XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX              XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************


SPLIT FLOW BEING PERFORMED

SF


TN          BREAKOUT OVER ROB ABOVE LAME
NS      3     6.76      7.14        -1       0.10      .002
NG      0  1783.0        330   1790.9        2050   1793.1

TN          BREAKOUT OVER LOB
NS      4     7.61      7.97      6.92       .080      .006
NG      0  1806.0           5   1806.0        300   1808.3      1930   1815.1

TN          BREAKOUT OVER LOB RIDGE
NS      3     7.97      8.27      6.92       .050      .006
NG      0  1815.1        1100  1823.9        1450   1824.0

TN          BREAKOUT OVER PECOS RD U/S LAKE MEAD
NS      7    8.270      8.61      6.92       .090      .005
NG      0     1824           5    1824        230      1826       235      1826       530   1826.4
NG    760  1827.2        2010  1830.0

TN          BREAKOUT OVER PECOS RD - LAKE MEAD TO CAREY
NS      3     8.61      8.90      6.92        .10      .005
NG      0     1830      1960   1837.0        2090   1839.0

TN          BREAKOUT OVER PECOS RD - CAREY TO LVE
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NS      4      8.90       9.43       6.92        .14       .005
NC      0   1639.0        750    1842.5       1980    1848.0      2800   1850.8

T1              WEIR OVER LVB EAST OF PECOS - GOES TO OVERBANK MODEL
WS          2  9.411       9.43       6.92        3.0
WC  11400      1850      12350       1850
```



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C
I1      CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
I2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC. --  EGP
I3      LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  -50-YEAR

J1  ICHECK      INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
        0.        3.        0.        0.  0.000000      0.00      0.        0.  1784.000      0.000

J2  NPROF     IPLOT     PRFWS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000

GT      4.000   6400.000  13000.000  24000.000  84000.000      0.000      0.000      0.000      0.000      0.000
ET      0.000      0.000      0.000      8.100      8.100  14940.000  15040.000      0.000  15040.000      0.000
NC      0.070      0.080      0.030      0.100      0.300      0.000      0.000      0.000      0.000      0.000
NH      9.000      0.130   4690.000      0.100  13425.000      0.130  14809.000      0.130  14942.000      0.035
NH  15039.000      0.045  16195.000      0.100  16755.000      0.045  21140.000      0.130  22860.000      0.000
X1      6.710     42.300  14942.000  15039.000    650.000    450.000    780.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000   1784.000   1784.000      0.000
X4      2.000   1790.000   5200.000   1785.000   5600.000      0.000      0.000      0.000      0.000      0.000
GR   1796.000   2680.000   1792.000   3960.000   1792.000   4690.000   1784.000   8200.000   1784.000  12020.000
GR   1784.000  13425.000   1780.000  14965.000   1780.000  14680.000   1777.400  14809.000   1777.600  14835.000
GR   1778.500  14910.000   1779.000  14914.000   1784.800  14942.000   1773.000  14956.000   1765.300  14987.000
GR   1769.300  14997.000   1769.300  15012.000   1771.900  15025.000   1784.800  15039.000   1781.900  15040.000
GR   1781.900  15071.000   1781.000  15110.000   1781.300  15136.000   1781.200  15150.000   1781.200  15167.000
GR   1780.000  15195.000   1782.100  15222.000   1782.100  15298.000   1781.800  15387.000   1779.800  15404.000
GR   1779.800  15461.000   1781.500  15472.000   1781.000  15531.000   1780.000  15640.000   1780.000  15710.000
GR   1782.000  16195.000   1782.000  16755.000   1784.000  21140.000   1784.000  21860.000   1788.000  22235.000
GR   1792.000  22575.000   1796.000  22860.000      0.000      0.000      0.000      0.000      0.000      0.000

ET      0.000      0.000      6.100      8.100      8.100   9925.000  10075.000      0.000  10075.000      0.000
NC      0.000      0.000      0.000      0.300      0.500      0.000      0.000      0.000      0.000      0.000
        SPLIT FLOW RUN FOR Q100 AND Q50 - LOB MODELED SEPARATELY
        LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
        Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
        CL = 10000
X1      6.750     22.000   9928.000  10072.000    140.000    220.000    220.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR   1790.000    160.000   1784.000   1150.000   1784.000   2940.000   1783.000   6700.000   1783.500   7000.000
GR   1783.500   7800.000   1784.000   8250.000   1784.000   8800.000   1782.000   8900.000   1782.000   9250.000
GR   1760.000   9550.000   1780.000   5850.000   1783.000   9928.000   1771.400   9947.000   1770.900  10000.000
GR   1771.400  10053.000   1783.000  10072.000   1783.000  12000.000   1783.500  12400.000   1783.500  15600.000
GR   1784.000  15900.000   1788.000  16500.000      0.000      0.000      0.000      0.000      0.000      0.000

ET      0.000      6.100      6.100      8.100      8.100   9925.000  10075.000      0.000  10075.000      0.000
X1      6.751     32.000   9928.000  10072.000      5.000      5.000      0.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
X4      1.000   1771.400  10047.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
BT     -4.000   9928.000   1783.000   1783.000   9947.000   1783.000   1782.000  10053.000   1783.000   1782.000
BT      0.000  10072.000   1783.000   1783.000      0.000      0.000      0.000      0.000      0.000      0.000
GR   1790.000    160.000   1784.000   1150.000   1784.000   2940.000   1783.000   6700.000   1783.500   7000.000
GR   1783.500   7800.000   1784.000   8250.000   1784.000   8800.000   1782.000   8900.000   1782.000   9250.000
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GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1771.400	9953.000
GR	1782.000	9953.000	1782.000	9957.000	1771.400	9957.000	1770.900	9998.000	1782.000	9998.000
GR	1782.000	10002.000	1770.900	10002.000	1771.400	10043.000	1782.000	10043.000	1782.000	10047.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	8.100	9927.000	10072.000	0.000	10075.000	0.000
X1	6.760	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.200	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	8.100	9927.000	10072.000	0.000	10075.000	0.000
X1	6.761	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	1600.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	6250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	8.100	11320.000	11437.000	0.000	11437.000	0.000

CL = 11370
UPSTREAM LOB OVERFLOWS RETURN TO MODEL.

X1	6.920	36.000	11321.000	11410.000	580.000	840.000	830.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1790.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1793.000	680.000	1788.000	1000.000	1788.000	2000.000	1787.000	3500.000	1788.000	4850.000
GR	1785.000	5450.000	1785.000	9200.000	1784.000	9550.000	1784.000	10200.000	1784.000	10200.000
GR	1787.300	11000.000	1787.700	11145.000	1786.500	11169.000	1786.600	11200.000	1787.000	11289.000
GR	1791.000	11321.000	1781.800	11334.000	1777.700	11357.000	1777.700	11366.000	1779.000	11378.000
GR	1781.000	11406.000	1790.900	11410.000	1786.900	11426.000	1790.000	11437.000	1789.900	11504.000
GR	1788.300	11551.000	1788.100	11559.000	1786.100	11578.000	1788.100	11605.000	1788.100	11612.000
GR	1788.600	11622.000	1786.000	12100.000	1786.000	12300.000	1788.000	13600.000	1788.000	16450.000
GR	1792.000	17230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	11200.000	12370.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CL = 12260
Q50 BREAKOUT IN ROB REDUCE DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 ROB BREAKOUT MODELED SEPARATELY.

X1	7.140	31.000	12150.000	12369.000	580.000	1250.000	1200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1600.000	450.000	1791.000	1050.000	1790.000	1500.000	1789.500	2300.000	1788.000	3700.000
GR	1789.000	4600.000	1789.000	9200.000	1788.000	7200.000	1788.000	10450.000	1792.500	11200.000
GR	1791.000	12000.000	1791.000	12114.000	1791.000	12150.000	1787.000	12224.000	1779.200	12255.000
GR	1779.200	12265.000	1782.400	12272.000	1785.600	12280.000	1792.000	12293.000	1792.000	12312.000
GR	1792.800	12369.000	1791.600	12391.000	1793.100	12412.000	1792.800	12524.000	1792.600	12729.000
GR	1791.500	12873.000	1791.800	12931.000	1792.000	12970.000	1794.000	13300.000	1795.000	14000.000
GR	1795.000	15200.000	1796.000	16630.000	1800.000	16800.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	6.100	8.100	0.000	7300.000	0.000	12320.100	0.000	0.000
NH	4.000	0.050	10980.000	0.070	12321.000	0.025	12437.000	0.160	13730.000	0.000

CL = 12370

X1	7.340	33.000	12321.000	12437.000	600.000	1300.000	1050.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	150.000	1795.000	900.000	1790.000	3500.000	1792.000	5000.000	1792.000	6850.000
GR	1791.000	8600.000	1791.000	9500.000	1792.000	9600.000	1792.000	10000.000	1796.000	10980.000
GR	1796.000	12000.000	1796.300	12048.000	1795.800	12125.000	1796.600	12229.000	1795.700	12268.000
GR	1798.000	12321.000	1786.700	12343.000	1786.200	12358.000	1785.500	12371.000	1787.200	12411.000
GR	1796.500	12437.000	1794.100	12463.000	1794.100	12531.000	1794.100	12538.000	1796.900	12548.000
GR	1797.200	12571.000	1795.300	12600.000	1794.200	12626.000	1794.600	12642.000	1799.600	12656.000
GR	1804.400	12726.000	1800.500	12730.000	1804.000	13730.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	11200.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.00	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING
CL = 11490

X1	7.600	24.000	11410.000	11577.000	1200.000	1350.000	1366.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11441.000	1793.800	11546.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000

ET	0.000	0.000	6.100	6.100	0.000	11200.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.601	39.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11440.000	1802.300	11440.000
GR	1802.300	11443.500	1793.800	11443.500	1793.800	11474.500	1802.300	11474.500	1802.300	11478.000
GR	1793.800	11478.000	1793.800	11509.000	1802.300	11509.000	1802.300	11512.500	1793.800	11512.500
GR	1793.800	11543.500	1802.300	11543.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000

ET	0.000	0.000	6.100	6.100	0.000	11200.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000

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GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11439.000	1802.300	11439.000
GR	1802.300	11444.500	1793.900	11444.500	1793.900	11473.500	1802.300	11473.500	1802.300	11479.000
GR	1793.900	11479.000	1793.900	11508.000	1802.300	11508.000	1802.300	11513.500	1793.900	11513.500
GR	1793.900	11542.500	1802.300	11542.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000

ET	0.000	0.000	6.100	6.100	0.000	11200.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.611	24.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11441.000	1793.900	11547.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000

ET	0.000	0.000	6.100	6.100	0.000	11639.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	5800.000	0.070	7700.000	0.040	10500.000	0.120	11640.000	0.025
NH	11930.000	0.160	13620.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CL = 11800

X1	7.680	32.000	11640.000	11930.000	290.000	220.000	280.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1810.000	400.000	1800.000	1650.000	1799.000	2200.000	1799.000	3750.000	1800.000	4000.000
GR	1802.000	4450.000	1801.000	5800.000	1801.000	6800.000	1801.000	7700.000	1800.000	8070.000

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 GR    1800.000    8350.000    1797.500    8550.000    1797.500    8700.000    1800.000    9060.000    1799.000    9250.000
 GR    1799.000    9400.000    1800.000    9610.000    1804.000   10500.000    1804.400   11000.000    1808.300   11640.000
 GR    1806.000   11710.000    1796.000   11760.000    1794.500   11790.000    1794.500   11830.000    1796.000   11840.000
 GR    1808.000   11870.000    1809.500   11930.000    1806.500   12200.000    1806.800   12470.000    1808.000   12570.000
 GR    1808.000   13100.000    1812.000   13620.000       0.000       0.000       0.000       0.000       0.000       0.000

 ET       0.000       0.000       6.100       6.100       0.000   12410.000       0.000       0.000       0.000       0.000
 NC       0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
 NH       5.000       0.040    3400.000       0.060   12470.000       0.025   12766.000       0.040   13400.000       0.160
 NH   14200.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
          CL = 12520
          Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS.  BREAKOUT NOT MODELED.
          Q100 BREAKOUT IN LOB MODELED SEPARATELY.
 X1       7.971      34.000   12454.000   12563.000    1750.000    1340.000    1610.000       0.000       0.000       0.000
 X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
 X4       2.000    1813.000   11000.000    1813.000   11700.000       0.000       0.000       0.000       0.000       0.000
 GR    1816.000     500.000    1812.000    1000.000    1810.000    1800.000    1810.000    2400.000    1813.000    3400.000
 GR    1811.000    4600.000    1811.000    7500.000    1812.000    8500.000    1810.000    9450.000    1810.000   10000.000
 GR    1815.200   12000.000    1816.600   12227.000    1815.600   12313.000    1813.600   12367.000    1815.100   12418.000
 GR    1812.800   12442.000    1812.900   12454.000    1812.000   12470.000    1806.500   12503.000    1806.000   12515.000
 GR    1806.000   12526.000    1806.700   12540.000    1808.800   12561.000    1812.400   12563.000    1813.700   12597.000
 GR    1814.500   12669.000    1813.000   12701.000    1814.000   12736.000    1815.000   12756.000    1816.000   12766.000
 GR    1816.700   12794.000    1815.000   13250.000    1816.000   13400.000    1816.000   14200.000       0.000       0.000
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 ET       0.000       0.000       6.100       6.100       0.000    8940.000       0.000       0.000       0.000       0.000
 NH       6.000       0.040    3800.000       0.060    7800.000       0.050    8941.000       0.030    9014.000       0.050
 NH    9204.000       0.140   11140.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
          START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
          CL = 8980
 X1       6.199      39.000    8941.000    9014.000    1110.000     930.000    1140.000       0.000       0.000       0.000
 X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000    1822.000    1822.000       0.000
 GR    1823.000     300.000    1817.000    1200.000    1816.000    2500.000    1820.000    3800.000    1818.000    4980.000
 GR    1819.000    5810.000    1816.000    7030.000    1820.000    7800.000    1820.000    8000.000    1820.000    8000.000
 GR    1819.200    8000.000    1819.600    8169.000    1819.400    8408.000    1820.100    8794.000    1820.500    8849.000
 GR    1821.500    8875.000    1820.300    8921.000    1822.600    8927.000    1823.900    8941.000    1812.500    8952.000
 GR    1810.600    8975.000    1810.600    8988.000    1813.200    9001.000    1814.100    9010.000    1823.900    9014.000
 GR    1820.900    9040.000    1823.500    9062.000    1826.700    9084.000    1826.300    9115.000    1820.800    9150.000
 GR    1819.500    9163.000    1821.500    9204.000    1822.000    9255.000    1823.000    9550.000    1823.000   10300.000
 GR    1823.000   10530.000    1824.000   10650.000    1824.000   10940.000    1824.500   11140.000       0.000       0.000

 ET       0.000       0.000       6.100       8.100       0.000    9000.000    9290.000    9000.000       0.000       0.000
 NH       5.000       0.040    4430.000       0.060    9006.000       0.025    9094.000       0.030    9400.000       0.140
 NH   10560.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
          LAKE MEAD BLVD BRIDGE
          Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS.  BREAKOUT NOT MODELED.
          Q100 BREAKOUT IN LOB MODELED SEPARATELY.
          CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
          CL = 9150
 X1       8.270      23.000    9006.000    9094.000     350.000     300.000     330.000       0.000       0.000       0.000
 X3      10.000       0.000       0.000       0.000       0.000       0.000       0.000    1825.000    1825.000       0.000
 X4       3.000    1821.000    8000.000    1823.000    8650.000    1823.000    8850.000       0.000       0.000       0.000
 GR    1824.000     600.000    1820.000    1300.000    1819.000    2400.000    1820.000    3200.000    1824.000    4000.000
 GR    1822.000    4430.000    1819.500    5200.000    1821.000    5850.000    1819.500    6770.000    1819.500    7400.000
 GR    1824.000    9000.000    1824.000    9006.000    1814.000    9018.000    1813.700    9050.000    1814.000    9082.000
 GR    1822.200    9094.000    1823.000    9100.000    1823.000    9290.000    1824.000    9400.000    1824.500    9900.000
 GR    1825.000   10850.000    1825.000   10450.000    1826.000   10560.000       0.000       0.000       0.000       0.000

 GT       1.000    5380.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
 ET       0.000       0.000       6.100       8.100       0.000    9000.000    9290.000    9000.000       0.000       0.000
 NC       0.000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.000
 NH       5.000       0.040    4430.000       0.060    9006.000       0.015    9095.000       0.030    9400.000       0.140
 NH   10560.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
          Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q
 X1       8.271      48.000    9017.000    9095.000       5.000       5.000       5.000       0.000       0.000       0.000
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X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
BT	-4.000	9006.000	1824.000	0.000	9017.000	1824.100	1821.700	9025.000	1823.200	1821.700
BT	0.000	9095.000	1823.200	1821.700	0.000	0.000	0.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1815.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9017.000	1813.700	9025.000
GR	1821.700	9028.300	1813.700	9028.300	1813.700	9034.300	1821.700	9034.300	1821.700	9037.600
GR	1813.700	9037.600	1813.700	9043.600	1821.700	9043.600	1821.700	9047.200	1813.700	9047.200
GR	1813.700	9057.200	1821.700	9057.200	1821.700	9060.000	1813.700	9060.000	1813.700	9070.000
GR	1821.700	9070.000	1821.700	9073.000	1813.700	9073.000	1813.700	9083.000	1821.700	9083.000
GR	1821.700	9086.600	1813.700	9086.600	1813.700	9095.000	1823.200	9095.000	1823.200	9095.000
GR	1822.200	9096.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9500.000

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GR	1825.000	1 951.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	8900.000	9270.000	8900.000	0.000	0.000
NC	0.055	0.140	0.015	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CL = 9080									
X1	8.310	48.000	9040.000	9116.000	235.000	235.000	235.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-5.000	8940.000	1824.000	0.000	9040.000	1824.100	1822.000	9046.000	1823.200	1822.000
BT	0.000	9116.000	1824.100	1822.000	9120.000	1824.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1822.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9040.000	1814.000	9040.000	1814.000	9046.000
GR	1822.000	9046.000	1822.000	9051.300	1814.000	9051.300	1814.000	9055.300	1822.000	9055.300
GR	1822.000	9060.600	1814.000	9060.600	1814.000	9064.600	1822.000	9064.600	1822.000	9070.200
GR	1814.000	9070.200	1814.000	9078.200	1822.000	9078.200	1822.000	9083.000	1814.000	9083.000
GR	1814.000	9091.000	1822.000	9091.000	1822.000	9096.000	1814.000	9096.000	1814.000	9104.000
GR	1822.000	9104.000	1822.000	9109.600	1814.000	9109.600	1814.000	9116.000	1824.000	9116.000
GR	1824.000	9120.000	1826.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
GT	1.000	5520.000	0.100	0.100	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	8900.000	9270.000	8900.000	0.000	0.000
NC	0.055	0.140	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	8.311	23.000	9014.000	9140.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	1814.500	9034.000	1814.000	9075.000
GR	1814.500	9120.000	1824.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	6880.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.040	2020.000	0.060	3700.000	0.160	5380.000	0.040	7000.000	0.160
NH	7863.000	0.025	8094.000	0.160	11250.000	0.000	0.000	0.000	0.000	0.000

CL = 8010
Q50 BREAKOUT OVER PECOS REDUCES D/S FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT OVER PECOS MODELED SEPARATELY.

X1	8.610	39.000	7923.000	8094.000	1570.000	1370.000	1560.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1828.500	1828.500	0.000
X4	3.000	1830.500	2900.000	1830.000	7400.000	1832.000	7700.000	0.000	0.000	0.000
GR	1832.000	0.000	1830.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.000	5970.000	1827.000	6250.000	1827.000	6730.000	1830.000	6880.000	1825.100	7000.000
GR	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000
GR	1832.700	7754.000	1830.200	7793.000	1830.200	7836.000	1832.600	7863.000	1832.600	7923.000
GR	1829.900	7952.000	1822.700	7970.000	1818.900	8025.000	1820.100	8039.000	1822.100	8062.000
GR	1830.300	8077.000	1832.300	8094.000	1832.300	8135.000	1832.400	8173.000	1832.000	8180.000
GR	1832.000	8710.000	1832.000	9180.000	1832.000	9230.000	1832.000	10070.000	1832.400	10360.000

GR	1833.000	10500.000	1834.000	10750.000	1834.000	11100.000	1836.000	11250.000	0.000	0.000

ET	0.000	0.000	6.100	8.100	0.000	4900.000	0.000	4900.000	10080.000	0.000
NH	4.000	0.040	1700.000	0.160	7007.000	0.025	7188.000	0.160	11189.000	0.000
	CL = 7 90									
X1	8.850	49.000	7007.000	7188.000	1370.000	1200.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1834.500	1834.500	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	1833.300	5000.000	1834.200	5102.000	1833.900	5248.000	1834.600	5315.000
GR	1833.900	5362.000	1834.000	5458.000	1834.200	5626.000	1834.000	5773.000	1833.500	5856.000
GR	1833.700	5977.000	1834.600	6004.000	1834.800	6111.000	1833.700	6220.000	1837.700	6395.000
GR	1837.700	6554.000	1838.100	6837.000	1838.800	6858.000	1839.400	6879.000	1837.900	6900.000
GR	1837.200	6953.000	1837.000	6981.000	1837.600	7007.000	1834.400	7013.000	1833.000	7025.000
GR	1827.300	7031.000	1825.100	7044.000	1824.400	7064.000	1824.400	7099.000	1826.200	7119.000
GR	1825.900	7122.000	1833.500	7134.000	1835.600	7142.000	1837.700	7163.000	1837.800	7188.000
GR	1837.800	7250.000	1838.000	7420.000	1838.000	8170.000	1838.500	8550.000	1835.700	9578.000
GR	1836.000	10080.000	1840.000	10450.000	1842.000	10870.000	1844.000	11180.000	0.000	0.000

GT	1.000	5460.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	0.000	7700.000	11000.000	7700.000	12530.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9510.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CAREY AVE BRIDGE									
	NORMAL BRIDGE; APPROXIMATION OF ARCH CULVERT.									
	MAY NEED TO MODIFY GR POINTS FOR VERY LOW FLOWS.									
	CL = 10000									
X1	8.900	35.000	9910.000	10070.000	170.000	360.000	230.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1836.500	1836.500	0.000
X4	2.000	1840.000	2803.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.200	9955.000	1825.200	10020.000	1826.000	10025.000
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000

ET	0.000	0.000	6.100	8.100	0.000	7700.000	11000.000	7700.000	12530.000	0.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9510.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.901	50.000	9950.000	10019.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	3.000	1840.000	2803.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.400
BT	0.000	9988.000	1838.700	1832.400	10019.000	1838.500	1832.400	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000

GR	1836.000	10019.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000

ET	0.000	0.000	6.100	8.100	0.000	7700.000	11000.000	7700.000	12530.000	0.000

NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9510.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 10000									
X1	8.910	50.000	9950.000	10018.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.800
BT	0.000	9988.000	1838.700	1832.800	10018.000	1838.500	1832.800	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.600	9950.000	1825.600	9958.000	1832.800	9958.000
GR	1832.800	9965.000	1825.600	9965.000	1825.600	9973.000	1832.800	9973.000	1832.800	9980.000
GR	1825.600	9980.000	1825.600	9988.000	1832.800	9988.000	1832.800	9995.000	1825.600	9995.000
GR	1825.600	10003.000	1832.800	10003.000	1832.800	10010.000	1825.600	10010.000	1825.600	10018.000
GR	1838.000	10018.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
GT	2.000	5520.000	13000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	0.000	7700.000	11000.000	7700.000	12530.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9510.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.									
	Q50 BREAKOUT IN ROB DOES NOT RETURN TO CHANNEL.									
X1	8.911	35.000	9945.000	10025.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1828.000	9945.000	1825.600	9960.000	1825.600	10015.000	1828.000	10025.000
GR	1838.000	10070.000	1833.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
GT	1.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	8.100	0.000	4850.000	7361.000	4850.000	8750.000	0.000
NH	5.000	0.040	2000.000	0.160	7219.000	0.025	7349.000	0.160	8360.000	0.110
NH	10960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	CL = 7310									
X1	9.060	32.000	7219.000	7349.000	650.000	830.000	820.000	0.000	0.000	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2800.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	1840.900	5000.000	1840.000	5350.000	1840.000	7110.000
GR	1842.300	7186.000	1840.500	7219.000	1840.700	7238.000	1832.300	7255.000	1828.100	7301.000
GR	1832.100	7328.000	1841.100	7349.000	1841.900	7361.000	1840.300	7375.000	1840.700	7406.000
GR	1840.300	7451.000	1840.000	7670.000	1840.000	8360.000	1841.000	8750.000	1841.200	9140.000
GR	1842.000	9180.000	1842.500	9450.000	1843.100	9900.000	1844.000	10100.000	1846.000	10510.000
GR	1846.000	10700.000	1846.500	10960.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	4000.000	0.160	4850.000	0.035	5750.000	0.120	6630.000	0.030
NH	7212.000	0.026	7447.000	0.036	7500.000	0.050	8700.000	0.160	11320.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	4850.000	7500.000	0.000	0.000	0.000
	CL = 7270									
X1	9.300	39.000	7212.000	7447.000	1040.000	1070.000	1250.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	1000.000	1845.000	1880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1848.000	4850.000	1846.800	4950.000	1846.000	5000.000	1846.000	5300.000	1845.700	5430.000
GR	1846.200	5750.000	1843.500	6150.000	1847.000	6990.000	1847.000	7162.000	1847.100	7212.000

GR	1837.800	7232.000	1835.200	7252.000	1834.400	7263.000	1837.800	7291.000	1842.100	7307.000
GR	1841.400	7327.000	1840.400	7346.000	1840.900	7376.000	1841.200	7390.000	1840.200	7407.000
GR	1843.800	7422.000	1844.700	7447.000	1843.400	7468.000	1845.500	7840.000	1846.000	7900.000
GR	1845.500	7980.000	1845.500	8700.000	1845.500	9520.000	1846.000	9760.000	1848.000	10000.000
GR	1850.000	1 400.000	1850.000	11080.000	1851.300	11150.000	1852.000	11320.000	0.000	0.000
ET	0.000	0.000	6.100	6.100	0.000	12700.000	16400.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.080	12650.000	0.040	14000.000	0.060	14700.000	0.037	15370.000	0.025
NH	15496.000	0.037	16120.000	0.055	17650.000	0.080	18900.000	0.000	0.000	0.000

LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 5430

X1	9.410	43.000	15370.000	15456.000	840.000	330.000	570.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
X4	3.000	1850.000	9700.000	1850.000	11800.000	1848.500	13410.000	0.000	0.000	0.000
GR	1853.000	9200.000	1849.000	12200.000	1849.000	12650.000	1849.900	12760.000	1849.000	12960.000
GR	1848.500	14000.000	1848.000	14150.000	1847.900	14250.000	1847.900	14700.000	1848.500	14900.000
GR	1847.900	15090.000	1847.900	15065.000	1847.900	15118.000	1847.800	15184.000	1847.900	15242.000
GR	1847.900	15264.000	1847.900	15306.000	1848.000	15352.000	1847.900	15370.000	1840.500	15389.000
GR	1840.500	15417.000	1840.500	15461.000	1845.400	15480.000	1846.500	15496.000	1847.400	15535.000
GR	1847.500	15559.000	1847.200	15579.000	1847.400	15601.000	1847.500	15631.000	1848.900	15676.000
GR	1846.100	15735.000	1848.300	15762.000	1846.100	15790.000	1847.200	15815.000	1848.200	15950.000
GR	1849.500	16120.000	1848.300	16200.000	1849.000	16600.000	1849.000	17400.000	1850.000	17650.000
GR	1850.000	18000.000	1852.000	18280.000	1854.000	18900.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	12700.000	16400.000	0.000	0.000	0.000
NH	8.000	0.080	12650.000	0.040	14000.000	0.060	14700.000	0.037	15370.000	0.015
NH	15496.000	0.037	16120.000	0.055	17650.000	0.080	18900.000	0.000	0.000	0.000

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X1	9.411	58.000	15391.000	15459.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
X4	3.000	1850.000	9800.000	1850.000	11800.000	1850.500	12700.000	1849.900	13410.000	0.000
BT	-11.000	15000.000	1849.900	1847.900	15065.000	1849.900	1847.900	15184.000	1850.700	1847.900
BT	0.000	15264.000	1851.300	1847.900	15291.000	1851.400	1847.800	15459.000	1851.400	1847.800
BT	0.000	15559.000	1851.000	1847.500	15676.000	1851.000	1848.900	15735.000	1851.000	1846.100
BT	0.000	15762.000	1851.000	1848.300	15950.000	1851.100	1848.200	0.000	0.000	0.000
GR	1860.000	8700.000	1850.000	12200.000	1850.000	12650.000	1849.900	12760.000	1849.900	12960.000
GR	1848.500	14000.000	1848.900	14150.000	1849.900	14250.000	1849.900	14700.000	1849.900	14900.000
GR	1847.900	15090.000	1847.900	15065.000	1847.900	15118.000	1847.800	15184.000	1847.900	15242.000
GR	1847.900	15264.000	1847.900	15306.000	1848.000	15352.000	1847.900	15370.000	1847.800	15391.000
GR	1840.500	15391.000	1840.500	15401.000	1847.800	15401.000	1847.800	15404.000	1840.500	15404.000
GR	1840.500	15415.000	1847.800	15415.000	1847.800	15418.000	1840.500	15418.000	1840.500	15429.000
GR	1847.800	15429.000	1847.800	15434.000	1840.500	15434.000	1840.500	15445.000	1847.800	15445.000
GR	1847.800	15448.000	1840.500	15448.000	1840.500	15459.000	1847.800	15459.000	1847.400	15535.000
GR	1847.500	15559.000	1847.200	15579.000	1847.400	15601.000	1847.500	15631.000	1848.900	15676.000
GR	1846.100	15735.000	1848.300	15762.000	1846.100	15790.000	1847.200	15815.000	1848.200	15950.000
GR	1849.500	16120.000	1850.100	16200.000	1850.100	16600.000	1850.100	17400.000	1850.100	17650.000
GR	1850.000	18000.000	1852.000	18280.000	1854.000	18900.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	12350.000	15900.000	0.000	0.000	0.000
NH	5.000	0.090	12350.000	0.035	14500.000	0.060	15000.000	0.015	15120.000	0.040
NH	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SPLIT FLOW MODELED AS WEIR FLOW OVER LVB; WEIR LENGTH LIMITED TO
APPROX 1000 FT BY EFFECTIVE FLOW EXPANSION FROM 9.47.
CL = 5050

X1	9.430	48.000	15020.000	15087.000	110.000	110.000	110.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.000	1850.100	0.000
X4	7.000	1850.000	9400.000	1850.000	11150.000	1849.900	13820.000	1849.800	14500.000	1849.900
X4	14680.000	1850.700	14750.000	1851.300	14890.000	0.000	0.000	0.000	0.000	0.000
BT	-10.000	15000.000	1851.400	1850.000	15000.000	1851.400	1850.000	15020.000	1851.400	1849.100
BT	0.000	15087.000	1850.100	1849.100	15120.000	1851.000	1851.000	15400.000	1851.800	1851.000
BT	0.000	15500.000	1851.200	1850.000	15600.000	1851.000	1850.000	15750.000	1850.200	1850.000
BT	0.000	16120.000	1850.000	1850.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	1860.000	8300.000	1850.000	11750.000	1850.000	12250.000	1850.000	12250.000	1850.000	12250.000
GR	1850.000	12350.000	1850.000	12350.000	1850.000	12970.000	1850.000	13000.000	1849.200	13300.000
GR	1851.400	15000.000	1851.400	15000.000	1851.400	15000.000	1849.200	15020.000	1841.800	15020.000
GR	1841.800	15029.000	1849.100	15029.000	1849.100	15034.000	1841.800	15034.000	1841.800	15043.000
GR	1849.100	15043.000	1849.100	15048.000	1841.800	15048.000	1841.800	15057.000	1849.100	15057.000
GR	1849.100	15064.000	1841.800	15064.000	1841.800	15073.000	1849.100	15073.000	1849.100	15078.000
GR	1841.800	15073.000	1841.800	15087.000	1849.200	15087.000	1849.200	15087.000	1850.000	15100.000
GR	1850.000	15100.000	1851.000	15120.000	1851.000	15400.000	1850.000	15500.000	1850.000	15600.000
GR	1850.200	15750.000	1850.100	16120.000	1850.100	16200.000	1850.100	17200.000	1850.800	17450.000
GR	1851.000	17700.000	1852.200	17950.000	1852.700	18250.000	1854.100	18370.000	1855.200	18630.000
ET	0.000	6.100	6.100	6.100	0.000	12350.000	15900.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.090	12350.000	0.033	14500.000	0.060	15000.000	0.025	15100.000	0.040
NH	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.431	31.000	15000.000	15100.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1849.800	1850.100	0.000
GR	1860.000	8300.000	1850.000	9400.000	1850.000	9400.000	1850.000	9400.000	1850.000	9400.000
GR	1850.000	11500.000	1849.000	11750.000	1849.000	12250.000	1849.000	12250.000	1849.000	12250.000
GR	1850.000	12350.000	1850.000	12350.000	1850.000	12350.000	1849.500	12450.000	1849.500	13700.000

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GR	1849.500	14000.000	1850.000	14400.000	1850.000	15000.000	1841.800	15040.000	1841.800	15070.000
GR	1850.000	15100.000	1851.000	15120.000	1851.000	15400.000	1850.000	15500.000	1850.000	16120.000
GR	1849.500	16200.000	1849.500	17200.000	1850.000	17450.000	1852.000	18150.000	1854.000	18500.000
GR	1854.200	18630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.100	6.100	6.100	0.000	4940.000	8521.000	0.000	0.000	0.000
NH	6.000	0.080	5000.000	0.060	6675.000	0.035	7300.000	0.060	7655.000	0.027
NH	7645.000	0.060	11250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 7740									
X1	9.470	37.000	7655.000	7845.000	185.000	185.000	185.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	2.000	1852.200	4940.000	1842.300	7728.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	4200.000	1851.000	4450.000	1852.500	4900.000	1852.500	4900.000	1852.500	4900.000
GR	1851.600	5000.000	1851.400	5059.000	1850.700	5063.000	1850.900	5115.000	1850.400	5147.000
GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	OLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T%A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300

1490 NH CARD USED
*SECNO 6.710

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1784.00 ELREA= 1784.00

6.71	14.70	1784.00	0.00	1784.00	1785.79	1.79	0.00	0.00	1784.80
11724.	0.	11724.	0.	0.	1091.	0.	0.	0.	1784.80
0.00	0.00	10.74	0.00	0.000	0.035	0.000	0.000	1769.30	14942.95
0.002801	650.	780.	450.	0	3	0	0.00	95.18	15038.13

FLOW DISTRIBUTION FOR SECNO= 6.71 CWSEL= 1784.00

STA= 14943. 15039.
PER Q= 100.0
AREA= 1091.3
VEL= 10.7

CCHV= 0.300 CEHV= 0.500
*SECNO 6.750

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9925.0 10075.0 TYPE= 1 TARGET= 150.000
SPLIT FLOW RUN FOR Q100 AND Q50 - LOB MODELED SEPARATELY
LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

6.75	14.88	1785.78	0.00	1785.78	1786.38	0.60	0.23	0.36	1783.00
11724.	5.	11714.	5.	5.	1876.	8.	8.	1.	1783.00
0.01	0.64	6.24	0.56	0.070	0.030	0.080	0.000	1770.50	9925.00
0.000550	140.	220.	220.	2	0	0	0.00	150.00	10075.00

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1785.78

STA= 9925. 9928. 10072. 10075.
PER Q= 0.1 99.9 0.0
AREA= 8.5 1876.3 8.3
VEL= 0.6 6.2 0.6

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	WOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.751

3371 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

3470 ENCROACHMENT STATIONS= 9925.0 10075.0 TYPE= 1 TARGET= 150.000

6.75	14.77	1785.67	0.00	1785.67	1786.50	0.82	0.01	0.11	1783.00
11724.	14.	11697.	12.	6.	1603.	8.	8.	1.	1783.00
0.01	1.76	7.30	1.54	0.070	0.030	0.080	0.000	1770.50	9925.00
0.004337	5.	5.	5.	2	0	0	-125.00	150.00	10075.00

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1785.67

STA= 9925. 9928. 10072. 10075.
PER Q= 0.1 99.8 0.1
AREA= 8.2 1603.0 8.0
VEL= 1.8 7.3 1.5

*SECNO 6.760

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

6.76	15.06	1786.16	0.00	1786.16	1786.92	0.77	0.41	0.02	1783.20
11724.	3.	11718.	3.	3.	1669.	3.	12.	1.	1783.20
0.01	1.08	7.02	0.94	0.070	0.030	0.080	0.000	1771.10	9527.00
0.003805	100.	100.	100.	2	0	0	-100.01	146.00	10073.00

FLOW DISTRIBUTION FOR SECNO= 6.76 CWSEL= 1786.16

STA=	9927.	9928.	10072.	10073.
PER Q=	0.0	93.9	0.0	
AREA=	3.1	1669.2	3.0	
VEL=	1.1	7.0	0.9	

*SECNO 6.761

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

6.76	15.56	1786.66	0.00	1786.66	1787.21	0.55	0.22	0.07	1783.20
11724.	1.	11721.	1.	3.	1975.	3.	21.	2.	1783.20
0.02	0.39	5.93	0.34	0.070	0.030	0.080	0.000	1771.10	9527.00
0.000463	140.	220.	220.	2	0	0	0.00	146.00	10073.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.76 CWSEL= 1786.66

STA=	9927.	9928.	10072.	10073.
PER Q=	0.0	100.0	0.0	
AREA=	3.5	1975.4	3.5	
VEL=	0.4	5.9	0.3	

*SECNO 6.920

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 11320.0 11437.0 TYPE= 1 TARGET= 117.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1790.90

CL = 11370
UPSTREAM LOB OVERFLOWS RETURN TO MODEL.

6.92	10.93	1788.63	1788.63	1788.63	1792.84	4.20	0.98	1.63	1791.00
11724.	0.	11724.	0.	0.	713.	0.	46.	4.	1790.90
0.04	0.00	16.45	0.00	0.070	0.030	0.080	0.000	1777.70	11324.35
0.007259	560.	830.	840.	20	15	0	0.00	84.74	11409.08

FLOW DISTRIBUTION FOR SECNO= 6.92 CWSEL= 1788.63

STA=	11324.	11410.
PER Q=	100.0	
AREA=	712.5	
VEL=	16.5	

CCHV= 0.100 CEHV= 0.300
*SECNO 7.140

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12370.0 TYPE= 1 TARGET= 1170.000
CL = 12260
Q50 BREAKOUT IN ROB REDUCE DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.

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Q100 ROB BREAKOUT MODELED SEPARATELY.

7.14	15.72	1794.92	0.00	1794.92	1795.12	0.20	1.88	0.40	1791.00	
10136.	3857.	6278.	1.	3125.	1411.	2.	96.	14.	1792.80	
0.13	1.23	4.45	0.38	0.070	0.030	0.080	0.000	1779.20	11200.00	
0.000688	580.	1200.	1250.	4	0	0	0.00	1170.00	12370.00	

FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1794.92

STA=	11200.	12000.	12114.	12150.	12369.	12370.
PER Q=	30.3	6.1	1.9	61.5	0.0	
AREA=	2536.7	447.0	141.2	1411.2	2.1	
VEL=	1.2	1.4	1.4	4.4	0.4	

1496 NH CARD USED
*SECNO 7.340

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7300.0 13730.0 TYPE= 1 TARGET= -7300.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1798.00 ELREA= 1796.50

CL = 12370

7.34	8.97	1794.47	1794.47	1794.44	1797.82	3.35	1.42	0.94	1798.00	
10136.	0.	10136.	0.	0.	690.	0.	143.	25.	1796.50	
0.15	0.00	14.69	0.00	0.052	0.025	0.160	0.000	1785.50	12327.87	
0.005063	600.	1050.	1300.	20	11	0	0.00	103.47	12431.33	

0 FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1794.47

STA=	12328.	12437.
PER Q=	100.0	
AREA=	690.1	
VEL=	14.7	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.600

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING
CL = 11490

7.60	7.54	1801.44	0.00	1801.41	1803.09	1.66	4.76	0.51	1803.90
10136.	0.	10136.	0.	0.	982.	0.	169.	29.	1803.80
0.19	0.00	10.32	0.00	0.052	0.026	0.160	0.000	1793.80	11417.56
0.002564	1200.	1360.	1350.	3	0	0	0.00	182.11	11569.67

FLOW DISTRIBUTION FOR SECNO= 7.60 CHSEL= 1801.44

STA= 11418. 11577.
PER Q= 100.0
AREA= 981.7
VEL= 10.3

1490 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.87 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	7.37	1801.17	0.00	1801.14	1803.39	2.22	0.02	0.28	1803.90
10136.	0.	10136.	0.	0.	849.	0.	170.	29.	1803.80
0.19	0.00	11.94	0.00	0.052	0.026	0.160	0.000	1793.80	11418.08
0.005817	5.	5.	5.	2	0	0	0.00	137.05	11569.13

FLOW DISTRIBUTION FOR SECNO= 7.60 CHSEL= 1801.17

STA= 11418. 11577.
PER Q= 100.0
AREA= 846.6
VEL= 11.9

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.610

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	7.77	1801.57	0.00	1801.54	1803.81	2.24	.41	0.31	1803.90	
10136.	0.	10136.	0.	0.	844.	0.	171.	29.	1803.80	
0.19	0.00	12.00	0.00	0.052	0.025	0.160	0.000	1793.80	11416.73	
0.005844	70.	70.	70.	2	0	0	0.00	122.61	11570.34	

0
FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1801.57

STA= 11417. 11577.
PER Q= 100.0
AREA= 844.4
VEL= 12.0

1490 NH CARD USED
*SECNO 7.611

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	9.25	1803.15	0.00	1803.11	1804.18	1.03	0.01	0.36	1803.90	
10136.	0.	10136.	0.	0.	1242.	0.	171.	29.	1803.80	
0.19	0.00	8.16	0.00	0.052	0.025	0.160	0.000	1793.90	11412.33	
0.001283	5.	5.	5.	4	0	0	0.00	162.69	11575.02	

0
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TOA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1803.15

STA= 11412. 11577.
PER Q= 100.0
AREA= 1242.4
VEL= 8.2

1490 NH CARD USED
*SECNO 7.680

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11639.0 13620.0 TYPE= 1 TARGET= -11635.000
CL = 11800

7.68	8.55	1803.05	0.00	1803.01	1805.42	2.38	0.57	0.67	1808.30	
10136.	0.	10136.	0.	0.	819.	0.	178.	30.	1805.50	
0.19	0.00	12.37	0.00	0.052	0.025	0.160	0.000	1794.50	11730.64	
0.003696	280.	280.	220.	3	0	0	0.00	126.98	11857.62	

0
FLOW DISTRIBUTION FOR SECNO= 7.68 CWSEL= 1803.05

STA= 11731. 11930.
PER Q= 100.0
AREA= 819.2
VEL= 12.4

CCHV= 0.100 CEHV= 0.300

1490 NH CARD USED
*SECNO 7.970

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12410.0 14200.0 TYPE= 1 TARGET= -12410.000
CL = 12520

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Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT IN LOB MODELED SEPARATELY.

7.97	9.60	1815.60	1815.60	1815.58	1817.11	1.51	4.67	0.09	1812.90
10165.	149.	8392.	1624.	78.	782.	426.	215.	42.	1812.40
0.24	1.93	10.73	3.81	0.060	0.025	0.026	0.000	1806.00	12410.00
0.002395	1750.	1610.	1340.	20	8	0	0.00	602.88	13339.98

FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1815.60

STA=	12410.	12454.	12563.	12597.	12665.	12736.	13340.
PER Q=	1.5	82.6	4.6	4.0	6.0	1.3	
AREA=	77.5	782.1	86.7	108.0	132.7	99.0	
VEL=	1.9	10.7	5.4	3.8	4.6	1.3	

1490 NH CARD USED
*SECNO 8.190

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8940.0 11140.0 TYPE= 1 TARGET= -8940.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1822.00 ELREA= 1822.00

START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	10.54	1821.14	1821.14	1821.10	1825.73	4.59	4.51	0.92	1823.90
10165.	0.	10165.	0.	0.	591.	0.	239.	50.	1823.90
0.26	0.00	17.20	0.00	0.060	0.030	0.055	0.000	1810.60	8943.67
0.008095	1110.	1140.	930.	20	11	0	0.00	69.21	9012.87

FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1821.14

STA=	8944.	9014.
PER Q=	100.0	
AREA=	591.1	
VEL=	17.2	

1490 NH CARD USED
*SECNO 8.270

3301 HV CHANGED MORE THAN HVINS

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SECNO	DEPTH	CWSEL	CRIWS	∆SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9000.0 9290.0 TYPE= 1 TARGET= 290.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

LAKE MEAD BLVD BRIDGE
Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT IN LOB MODELED SEPARATELY.
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
CL = 9.53

8.27	11.22	1824.92	0.00	1824.86	1827.20	2.28	1.23	0.23	1824.00
10432.	0.	10432.	0.	0.	861.	244.	0.	50.	1822.20
0.27	0.00	12.12	0.00	0.060	0.025	0.055	0.000	1813.70	9006.00
0.002173	350.	330.	300.	3	6	0	0.00	88.00	9094.00

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1824.92

STA= 9006. 9094.
PER Q= 100.0
AREA= 861.
VEL= 12.1

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3280 CROSS SECTION 8.27 EXTENDED 0.90 FEET

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

347. ENCROACHMENT STATIONS= 9000.0 9290.0 TYPE= 1 TARGET= 290.000
Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	13.20	1826.90	1825.36	1826.83	1827.66	0.76	0.01	0.46	1824.00
10432.	309.	5989.	4134.	49.	755.	762.	245.	51.	1823.20
0.27	6.35	7.94	5.42	0.019	0.030	0.030	0.000	1813.70	9000.00
0.002004	5.	5.	5.	13	15	9	-116.69	287.16	9290.00

SECNO	DEPTH	CWSEL	CRIWS	∆SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1826.90

STA= 9000. 9017. 9035. 9290.
PER Q= 3.0 57.4 39.6
AREA= 48.7 754.6 762.2
VEL= 6.4 7.9 5.4

CCHV= 0.100 CEHV= 0.300

```
*SECNO 8.310
3280 CROSS SECTION       8.31 EXTENDED       1.39 FEET

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8900.0     9270.0  TYPE=      1  TARGET=      370.000
          CL = 9080
      8.31      13.39   1827.39   1827.39   1827.37   1829.64      2.26      0.75      0.45   1824.10
     10432.      994.     8499.      940.      285.      639.      518.      253.       52.   1824.00
       0.27       3.44     13.30      1.82      0.055     0.015     0.140     0.000  1814.00   8900.00
  0.005904      235.      235.      235.        20        12         0   -125.60   370.00    9270.00

FLOW DISTRIBUTION FOR SECNO=       8.31          CWSEL=    1827.39

STA=     8900.     8940.     9040.     9116.     9120.     9140.     9148.     9270.
  PER Q=      1.5       3.2      81.5       0.2       0.7       0.3       7.9
    AREA=     55.4     233.6     639.1      13.3      47.7      19.1     437.5
     VEL=      2.5       3.7      13.3       1.8       1.5       1.4       1.9

CCHV=   0.300 CEHV=    0.600
*SECNO 8.311
3280 CROSS SECTION       8.31 EXTENDED       3.80 FEET

3301 HV CHANGED MORE THAN HVINS

3301 HV CHANGED MORE THAN HVINS

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCRAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     8900.0     9270.0  TYPE=      1  TARGET=      370.000
      8.31      15.80   1829.80      0.00   1829.78   1830.20      0.41      0.00      0.56   1824.10
     10432.      577.     5435.      420.      503.     1758.      778.      253.       52.   1824.00
       0.27       1.15     5.37      0.54      0.055     0.025     0.140     0.003  1814.00   8900.00
  0.000254        5.        5.        5.         3         0         0      0.00    370.00    9270.00

FLOW DISTRIBUTION FOR SECNO=       8.31          CWSEL=    1829.80

STA=     8900.     8940.     9014.     9140.     9148.     9270.
  PER Q=      1.4       4.1      90.4       0.2       3.8
    AREA=     151.8     351.2    1757.8     46.4     731.5
     VEL=      1.0       1.2       5.4       0.5       0.5

CCHV=   0.100 CEHV=    0.300
1490 NH CARD USED
*SECNO 8.610

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS
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3470 ENCROACHMENT STATIONS= 6880.0 11250.0 TYPE= 1 TARGET= -6880.000
CL = 8810
Q50 BREAKOUT OVER PECOS REDUCES D/S FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT OVER PECOS MODELED SEPARATELY.

8.61	11.21	1830.11	0.00	1830.08	1831.24	1.12	0.82	0.22	1832.60
10721.	1567.	9154.	0.	1334.	996.	0.	348.	71.	1832.30
0.33	1.17	9.19	0.00	0.095	0.025	0.160	0.000	1818.50	6880.00
0.001594	1573.	1560.	1370.	4	6	0	0.00	664.12	8076.66

0
FLOW DISTRIBUTION FOR SECNO= 8.61 CHSEL= 1830.11

STA=	6880.	7003.	7400.	7417.	8094.
PER Q=	8.0	6.6	0.0	85.4	
AREA=	307.7	1025.7	1.0	995.9	
VEL=	2.8	0.7	0.1	9.2	

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SECNO	DEPTH	CHSEL	CRIWS	XSELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	WOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	ICPHIC	ENDST

1490 NH CARD USED
*SECNO 8.650

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4900.0 11180.0 TYPE= 1 TARGET= -4900.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1834.50 ELREA= 1834.50

CL = 7090

8.85	8.00	1832.40	1832.40	1832.40	1835.83	3.43	3.31	0.69	1837.60
10721.	0.	10721.	0.	0.	722.	0.	393.	82.	1837.80
0.35	0.00	14.86	0.00	0.160	0.025	0.160	0.000	1824.40	7025.63
0.005137	1370.	1250.	1200.	4	14	0	0.00	106.63	7132.26

0
FLOW DISTRIBUTION FOR SECNO= 8.85 CHSEL= 1832.40

STA=	7026.	7186.
PER Q=	100.	
AREA=	721.7	
VEL=	14.9	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 7700.0 11000.0 TYPE= 1 TARGET= 3300.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1836.50 ELREA= 1836.50

CAREY AVE BRIDGE
NORMAL BRIDGE; APPROXIMATION OF ARCH CULVERT.
MAY NEED TO MODIFY GR POINTS FOR VERY LOW FLOWS.
CL = 10000

8.90	10.41	1835.61	0.00	1835.61	1837.07	1.46	0.65	0.59	1837.80
10722.	3.	10722.	0.	0.	1109.	0.	398.	83.	1838.00

0.36	0.10	9.73	0.00	0.151	0.025	0.160	0.000	1825.27	9917.45
0.001797	170.	230.	360.	4	0	0	0.00	143.56	10061.01

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VCL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TCEWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1835.61

STA= 9917. 10070.
PER Q= 100.
AREA= 1105.3
VEL= 9.7

1490 NH CARD USED
*SECNO 8.901

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.89 MAX ELLC= 1832.40

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7700.0 11000.0 TYPE= 1 TARGET= 3300.000

8.90	13.47	1838.67	1838.67	1838.67	1839.21	0.54	0.01	0.28	1837.80
10722.	6816.	3578.	328.	4726.	358.	473.	398.	83.	1838.00
0.36	1.44	10.00	0.69	0.139	0.015	0.135	0.000	1825.20	7716.49
0.005644	5.	5.	5.	20	8	0	-488.48	3076.48	11000.00

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1838.67

STA=	7716.	8140.	8550.	8850.	9100.	9340.	9870.	9950.	10019.	11000.
PER Q=	11.3	14.1	13.0	9.2	7.0	8.3	0.9	33.4	3.1	
AREA=	937.6	1115.3	936.1	705.1	388.9	593.7	49.6	357.8	472.7	
VEL=	1.3	1.4	1.5	1.4	1.9	1.5	2.1	10.0	0.7	

1490 NH CARD USED
*SECNO 8.910

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

3470 ENCROACHMENT STATIONS= 7700.0 11000.0 TYPE= 1 TARGET= 3300.000

CL = 11000

8.91	13.81	1839.41	0.00	1839.41	1839.57	0.16	0.25	0.11	1837.80
10722.	7560.	2258.	885.	6397.	343.	1159.	409.	88.	1838.00
0.37	1.18	6.57	0.76	0.139	0.015	0.114	0.000	1825.60	7700.00
0.002433	70.	70.	70.	3	2	0	-488.59	3300.00	11000.00

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1839.41

STA=	7700.	8140.	8550.	8850.	9100.	9340.	9870.	9950.	10018.	10270.	11000.

PER Q=	11.4	13.9	12.2	8.9	8.6	12.8	2.9	21.1	4.0	4.3
AREA=	1262.2	1420.2	1159.2	691.0	567.4	987.9	109.1	343.4	318.1	840.7
VEL=	1.0	1.0	1.1	1.1	1.6	1.4	2.9	6.6	1.3	0.5

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.911

3470 ENCROACHMENT STATIONS= 7700.0 11000.0 TYPE= 1 TARGET= 3300.000
Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM
OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.
Q50 BREAKOUT IN ROB DOES NOT RETURN TO CHANNEL.

8.91	13.74	1839.34	0.00	1839.34	1839.65	0.31	0.00	0.08	1828.00
10722.	3267.	6235.	1201.	6421.	1069.	1342.	410.	89.	1828.00
0.37	0.51	5.83	0.89	0.108	0.025	0.048	0.000	1825.60	7700.00
0.000306	5.	5.	5.	2	0	0	0.00	3300.00	11000.00

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1839.34

STA=	7700.	8140.	8550.	8850.	9100.	9870.	9945.	10025.	10070.	1100 .
PER Q=	3.9	4.8	4.2	3.0	7.1	7.6	58.2	9.3	1.9	
AREA=	1230.3	1393.8	1137.5	872.9	1499.6	290.1	1069.3	285.4	1056.2	
VEL=	0.3	0.4	0.4	0.4	0.5	2.8	5.8	3.9	0.2	

1490 NH CARD USED
*SECNO 9.060

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347(ENCROACHMENT STATIONS= 4850.0 7361.(TYPE= 1 TARGET= 2511.000
CL = 7310

SECNO	DEPTH	CWSEL	CRIWS	ASELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	ANCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.06	12.87	1840.97	1840.97	1840.97	1842.59	1.61	0.52	0.65	1840.50
10722.	825.	9898.	0.	1917.	933.	0.	504.	135.	1841.10
0.39	0.43	10.61	0.00	0.160	0.025	0.160	0.000	1828.10	4993.00
0.002389	65.	823.	830.	20	11	0	0.00	2287.62	7348.71

FLOW DISTRIBUTION FOR SECNO= 9.06 CWSEL= 1840.97

STA=	4993.	5350.	7110.	7142.	7219.	7349.
PER Q=	0.5	7.1	0.0	0.0	92.3	
AREA=	183.9	1715.5	15.7	2.1	932.8	
VEL=	0.3	0.4	0.3	0.2	10.6	

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.300

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 4850.0 7900.0 TYPE= 1 TARGET= 3050.000
CL = 7270

9.30	10.96	1845.36	1845.36	1845.36	1846.25	0.89	2.80	0.07	1847.10
10722.	339.	9678.	706.	671.	1216.	367.	570.	177.	1844.70
0.44	0.51	7.96	1.92	0.130	0.026	0.036	0.000	1834.40	5874.60
0.002157	1040.	1250.	1070.	3	10	0	0.00	1320.79	7815.00

FLOW DISTRIBUTION FOR SECNO= 9.30 CWSEL= 1845.36

STA=	5875.	6596.	7447.	7815.
PER Q=	3.2	90.3	6.6	
AREA=	670.5	1216.3	367.3	
VEL=	0.5	8.3	1.9	

CCHV= 0.300 CEHV= 0.500
1495 NH CARD USED

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

*SECNO 9.410

3268 DIVIDED FLOW

3268 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 12700. 16400.0 TYPE= 1 TARGET= 3700.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1849.80 ELREA= 1850.10

LAS VEGAS BLVD BRIDGE
Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
CL = 5430

9.41	9.31	1849.81	1849.81	1849.81	1850.16	0.35	1.74	0.16	1847.90
10722.	4685.	6037.	0.	3805.	969.	0.	829.	213.	1846.50
0.48	1.23	6.23	0.00	0.044	0.025	0.040	0.000	1840.50	12700.00
0.000740	840.	570.	330.	20	12	0	0.00	2764.34	15496.00

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1849.81

STA=	12700.	13410.	14000.	14250.	14700.	14900.	15065.	15184.	15306.	15370.	15496.
PER Q=	5.1	8.7	3.7	8.3	4.5	4.2	3.6	3.7	1.8	56.3	
AREA=	558.4	771.8	419.5	858.6	321.6	284.8	230.4	235.7	118.9	968.8	
VEL=	1.3	1.2	1.0	1.0	1.5	1.6	1.7	1.7	1.7	6.2	

1490 NH CARD USED
*SECNO 9.411

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 1849.90 MAX ELLC= 1848.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12700.0 16400.0 TYPE= 1 TARGET= 3700.000

9.41	10.05	1850.55	1850.55	1850.55	1851.06	0.51	0.01	0.08	1847.80
10722.	5721.	3665.	1336.	2626.	394.	653.	630.	213.	1847.80
0.48	2.18	9.30	2.05	0.043	0.015	0.039	0.000	1840.50	12700.00
0.003120	5.	5.	5.	20	12	0	-2416.73	3700.00	16400.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1850.55

STA=	12700.	14000.	14150.	14700.	15000.	15391.	15459.	16120.	16400.
PER Q=	35.5	5.4	4.5	6.9	1.0	34.2	11.0	1.5	
AREA=	1561.0	278.2	410.1	296.4	80.6	394.2	501.4	151.3	
VEL=	2.4	2.1	1.2	2.5	1.4	9.3	2.4	1.0	

1490 NH CARD USED
*SECNO 9.430

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 1850.00 MAX ELLC= 1851.00

3470 ENCROACHMENT STATIONS= 12350. 15900.0 TYPE= 1 TARGET= 3550.000
SPLIT FLOW MODELED AS WEIR FLOW OVER LWB; WEIR LENGTH LIMITED TO
APPROX 1000 FT BY EFFECTIVE FLOW EXPANSION FROM 9.47.
CL = 5050

9.43	9.35	1851.15	0.00	1851.15	1851.48	0.33	0.36	0.05	1849.20
13000.	9579.	2896.	524.	3248.	357.	258.	639.	222.	1845.20
0.49	2.95	8.11	2.03	0.036	0.015	0.036	0.000	1841.80	12350.00
0.003458	110.	110.	110.	4	0	0	-427.41	3402.97	15900.00

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1851.15

STA=	12350.	12970.	13300.	13820.	14500.	14680.	15020.	15087.	15900.
PER Q=	15.0	12.7	21.9	20.2	3.1	0.7	22.3	4.0	
AREA=	713.6	499.8	832.5	884.6	234.2	83.3	357.0	257.9	
VEL=	2.7	3.3	3.4	3.0	1.7	1.1	8.1	2.0	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.431

3470 ENCROACHMENT STATIONS= 12350.0 15900.0 TYPE= 1 TARGET= 3550.000

9.43	9.35	1851.15	0.00	1851.15	1851.49	0.34	0.01	0.01	1850.00
13000.	7467.	4767.	766.	3939.	648.	578.	640.	223.	1850.00
0.49	1.90	7.36	1.33	0.037	0.025	0.040	0.000	1841.80	12350.00
0.003133	5.	5.	5.		0	0	0.00	3550.00	15900.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1851.15

STA=	12350.	13700.	14000.	14400.	15000.	15100.	15900.
PER Q=	35.9	3.1	8.2	5.2	36.7	5.9	
AREA=	2198.4	494.1	558.8	688.2	647.7	577.6	
VEL=	2.1	2.1	1.9	1.8	7.4	1.3	

1490 NH CARD USED
*SECNO 9.470
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4940.0 8521.0 TYPE= 1 TARGET= 3581.000
CL = 7740

9.47	9.78	1852.08	1852.08	1852.08	1852.21	0.13	.18	0.06	1852.00
13000.	6872.	4578.	1549.	5153.	997.	1374.	667.	238.	1850.70
0.51	1.33	4.59	1.13	0.052	0.027	0.060	0.000	1842.30	4951.83
0.000776	185.	185.	185.	20	11	0	0.00	3569.17	8521.00

FLOW DISTRIBUTION FOR SECNO= 9.47 CWSEL= 1852.08

STA=	4952.	5380.	5631.	5861.	6040.	6171.	6298.	6412.	6568.	6675.	6804.	6928.	7041.
PER Q=	3.4	4.0	3.5	4.0	3.0	4.2	3.5	4.1	4.1	4.6	3.3	4.0	
AREA=	516.4	482.8	429.6	425.5	315.2	378.6	324.0	405.9	351.1	291.1	234.9	256.0	
VEL=	0.9	1.1	1.1	1.2	1.2	1.4	1.4	1.3	1.5	2.1	1.8	2.0	

STA=	7041.	7142.	7387.	7655.	7845.	8129.	8324.	8512.	8521.
PER Q=	3.1	3.1	1.1	35.2	3.8	4.6	3.4	0.1	
AREA=	209.1	317.2	215.6	997.2	491.8	479.4	387.5	15.6	
VEL=	1.9	1.3	0.6	4.6	1.0	1.3	1.1	0.9	

TN BREAKOUT OVER ROB ABOVE LAME

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1819.9	0.79	3.16	1.21	2050.0	1338.2

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
1276.25	1273.60	0.21	1276.25	1273.60	0.21	21	1786.156	1794.920	6.760	7.140

TN BREAKOUT OVER LOB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
40.3	0.57	0.50	0.25	1930.0	161.4

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
29.41	23.03	24.31	1305.66	1296.64	0.69	21	1801.572	1815.600	7.610	7.970

TN BREAKOUT OVER LOB RIDGE

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
147.6	1.12	3.92	0.32	1450.0	466.5

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
267.00	165.91	46.70	1572.66	1462.55	7.26	21	1815.600	1824.916	7.970	8.270

TN BREAKOUT OVER PECOS RD U/S LAKE MEAD

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
91.7	0.61	0.93	0.19	2010.0	480.6

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNQ	USSNQ
289.01	56.24	134.84	1861.67	1518.79	20.29	21	1824.916	1830.114	8.270	8.610

TN BREAKOUT OVER PECOS RD - LAKE MEAD TO CAREY

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
6.6	0.16	0.11	0.06	2090.0	120.4

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNQ	USSNQ
1.25	1.06	16.75	1862.93	1519.86	20.28	21	1830.114	1835.607	8.610	8.900

TN BREAKOUT OVER PECOS RD - CAREY TO LWB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
28.2	0.23	0.35	0.17	2800.0	162.5

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNQ	USSNQ
6.57	6.58	0.09	1869.50	1526.43	20.27	21	1835.607	1851.147	8.900	9.430

TW WEIR OVER LWB EAST OF PECOS - GOES TO OVERBANK MODEL

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNQ	USSNQ
2270.96	227.96	7.00	4140.46	3797.40	20.20	21	1850.555	1851.147	9.411	9.430

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 51,51,52,53,54,55
****

T1 CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC. -- EGP
T3 LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD -100-YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.000000	0.00	0.0	0.	1785.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	&NCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&ID	ENDST

*PROF 2

CCH&= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 6.710

6.71	15.70	1785.30	0.00	1785.00	1785.34	0.34	0.00	0.00	1784.80
23547.	14658.	8889.	0.	13161.	1188.	0.	0.	0.	1784.80
0.00	1.11	7.49	0.00	0.089	0.035	0.000	0.000	1769.30	5600.00
0.001253	650.	730.	450.	0	0	0	0.00	9439.00	15039.00

FLOW DISTRIBUTION FOR SECNO= 6.71 C&SEL= 1785.00

STA=	5600.	12020.	13425.	14065.	14680.	14809.	14835.	14910.	14942.	15039.
PER Q=	10.4	3.1	6.9	15.4	4.6	5.6	14.1	2.0	37.7	
AREA=	5120.0	1405.0	1920.0	3075.0	812.7	195.0	521.2	111.8	1187.5	
VEL=	0.5	0.5	0.8	1.2	1.4	6.7	6.4	4.2	7.5	

CCH&= 0.300 CEHV= 0.500
*SECNO 6.750
SPLIT FLOW RUN FOR Q100 AND Q50 - LOB MODELED SEPARATELY
LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q50 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

6.75	14.39	1785.29	0.00	1785.29	1785.50	0.21	0.12	0.04	1783.00
23547.	13494.	10053.	0.	17247.	1807.	0.	56.	30.	1783.00
0.02	0.78	5.56	0.00	0.070	0.030	0.080	0.000	1770.90	935.79
0.000458	140.	220.	220.	3	0	0	0.00	9136.25	10072.04

FLOW DISTRIBUTION FOR SECNO= 6.75 C&SEL= 1785.29

STA=	936.	2940.	6700.	7800.	8800.	9250.	9550.	9850.	9928.	10072.
PER Q=	5.5	19.3	6.0	3.4	5.7	6.6	9.3	1.4	42.7	
AREA=	2462.8	6761.3	2053.0	1410.7	1384.2	1289.5	1589.5	296.3	1607.4	
VEL=	0.5	0.7	0.7	0.6	1.0	1.2	1.4	1.1	5.6	

*SECNO 6.751

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

6.75	14.62	1785.52	0.00	1785.52	1785.56	0.04	0.00	0.05	1783.00
23547.	19084.	4462.	0.	19275.	1582.	0.	59.	31.	1783.00
0.02	0.99	2.82	0.00	0.070	0.030	0.080	0.000	1770.90	898.67
0.000660	5.	5.	5.	2	0	0	-128.00	9173.38	10072.05

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
6	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	&NCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&ID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.75 C&SEL= 1785.52

STA=	899.	2940.	6700.	7800.	8800.	9250.	9550.	9850.	9928.	10072.
PER Q=	8.7	28.2	8.7	5.3	7.7	8.6	12.0	1.8	19.0	
AREA=	2917.9	7607.2	2300.5	1635.7	1485.4	1357.0	1657.0	313.8	1581.6	
VEL=	0.7	0.9	0.9	0.8	1.2	1.5	1.7	1.4	2.8	

*SECNO 6.760

```
3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

3470 ENCROACHMENT STATIONS=       0.0   10075.0  TYPE=     1  TARGET=   10074.999
     6.76     14.49   1785.59      0.00   1785.59   1785.63      0.04      0.07      0.00   1783.20
    23547.   18703.    4844.        0.     18065.    1587.        0.       105.       82.   1783.20
     0.04     1.04     3.05       0.01     0.070     0.030     0.080     0.000   1771.10    920.81
 0.000769     100.     100.       100.         2         0         0   -100.01   9151.24  10072.05

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1785.59

STA=     921.    2940.    6700.    7800.    8800.    9250.    9550.    9850.    9928.   10072.
  PER Q=    8.0     27.1      8.4      4.9      7.8      8.8     12.4      1.9     20.6
    AREA=  2645.5   7102.8   2152.9   1511.5   1425.1   1316.7   1616.7    303.3   1587.3
     VEL=    0.7      0.9      0.9      0.8      1.3      1.6      1.8      1.5      3.1

*SECNO 6.761
     6.76     14.51   1785.61      0.00   1785.61   1785.79      0.19      0.09      0.07   1783.20
    23547.   13848.    9699.        0.     18148.    1822.        0.       172.       82.   1783.20
     0.05     0.76     5.32       0.00     0.070     0.030     0.080     0.000   1771.10    919.28
 0.000416      140.     220.       220.         1         0         0      0.00   9152.77  10072.05

FLOW DISTRIBUTION FOR SECNO=      6.76          CWSEL=   1785.61

STA=     919.    2940.    6700.    7800.    8800.    9250.    9550.    9850.    9928.   10072.
  PER Q=    6.0     20.1      6.3      3.7      5.7      6.5      9.2      1.4     41.2
    AREA=  2664.3   7137.7   2163.1   1510.8   1429.2   1319.5   1619.5    304.1   1821.9
     VEL=    0.5      0.7      0.7      0.6      0.9      1.2      1.3      1.1      5.3

*SECNO 6.920
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TKA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELPIA       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3720 CRITICAL DEPTH ASSUMED
          CL = 1137.
          UPSTREAM LOB OVERFLOWS RETURN TO MODEL.
     6.92     13.67   1791.37   1791.37   1791.37   1791.37      0.00      0.06      0.05   1791.00
    23547.   22173.    1367.       7.     53061.     951.        39.       673.      214.   1790.90
     0.43     0.42     1.44       0.18     0.070     0.030     0.080     0.000   1777.70    759.68
 0.000041      580.     830.       840.        20        13         0      0.00  10626.33  11426.00

FLOW DISTRIBUTION FOR SECNO=      6.92          CWSEL=   1791.37

STA=     800.    2000.    3500.    4850.    6450.    9200.    9550.   10200.   11000.   11321.   11410.   11426.
  PER Q=    4.7      8.3      7.5     13.0     34.9      5.0     10.5      8.5      1.9      5.8      0.0
    AREA=  3673.5   5802.1   5221.9   7788.9  17512.1   2403.8   4789.2   4574.4   1295.0    951.0     35.5
     VEL=    0.3      0.3      0.3      0.4      0.5      0.5      0.5      0.4      0.4      1.4      0.2

CCHV=   0.100 CEHV=   0.300
*SECNO 7.140

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=   11200.0   12370.0  TYPE=     1  TARGET=    1170.000
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CL = 12260
Q50 BREAKOUT IN ROB REDUCE DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 ROB BREAKOUT MODELED SEPARATELY.

7.14	13.94	1793.14	1793.14	1793.14	1794.33	1.19	0.08	0.36	1791.00
13067.	2951.	10116.	0.	1434.	1021.	0.	1063.	295.	1792.80
0.46	2.06	9.90	0.55	0.070	0.030	0.080	0.000	1779.20	11200.00
0.005249	580.	1200.	1250.	20	9	0	0.00	1170.00	12370.00

6
FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1793.14

STA=	11200.	12000.	12114.	12150.	12365.	12370.
PER Q=	16.3	4.8	1.5	77.4	0.0	
AREA=	1112.6	244.0	77.1	1021.3	0.4	
VEL=	1.9	2.6	2.6	9.9	0.6	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.340

3301 HV CHANGED MORE THAN HVINS

347 ENCROACHMENT STATIONS= 12320.0 13730.0 TYPE= 1 TARGET= -12320.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1798.00 ELREA= 1796.50

CL = 12370

7.34	10.74	1796.24	0.00	1796.24	1799.66	3.42	4.66	0.67	1798.00
13067.	0.	13067.	0.	0.	880.	0.	1096.	306.	1796.50
0.47	0.00	14.84	0.00	0.070	0.025	0.160	0.000	1785.50	12324.42
0.004166	600.	1050.	1300.	3	0	0	0.00	111.85	12436.28

6
FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1796.24

STA=	12324.	12437.
PER Q=	100.0	
AREA=	880.5	
VEL=	14.8	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.600

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING
CL = 11490

7.60	8.75	1802.55	0.00	1802.54	1804.54	1.99	4.45	0.43	1803.90
13067.	0.	13067.	0.	0.	1155.	0.	1128.	310.	1803.80
0.51	0.00	11.31	0.00	0.060	0.025	0.160	0.000	1793.80	11414.14
0.002634	1200.	1360.	1350.	3	0	0	0.00	158.99	11573.13

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1802.55

STA= 11414. 11577.
PER Q= 100.0
AREA= 1155.1
VEL= 11.3

1498 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	8.43	1802.23	0.00	1802.22	1804.90	2.67	0.02	0.34	1803.90
13067.	0.	13067.	0.	0.	996.	0.	1126.	310.	1803.80
0.51	0.00	13.11	0.00	0.065	0.025	0.160	0.000	1793.80	11414.95
0.006241	5.	5.	5.	3	0	0	0.00	143.34	11572.30

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1802.23

STA= 11415. 11577.
PER Q= 100.0
AREA= 996.5
VEL= 13.1

1498 NH CARD USED
*SECNO 7.610

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	8.92	1802.72	1802.06	1802.71	1805.60	2.88	0.60	0.10	1803.90
13067.	0.	13067.	0.	0.	960.	0.	1130.	310.	1803.80
0.51	0.00	13.61	0.00	0.060	0.025	0.160	0.000	1793.80	11413.43
0.012258	70.	70.	70.	10	19	0	-47.76	160.31	11573.75

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1802.72

STA= 11413. 11577.
PER Q= 100.
AREA= 959.9
VEL= 13.6

1490 NH CARD USED
*SECNO 7.611

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12410.0 TYPE= 1 TARGET= -11200.000

7.61	11.22	1805.12	0.00	1805.10	1806.16	1.04	0.01	0.55	1803.90	
13067.	91.	12931.	45.	129.	1569.	184.	1130.	310.	1803.80	
0.51	0.71	3.24	0.25	0.060	0.025	0.160	0.000	1793.90	11247.17	
0.000993	5.	5.	5.	4	0	0	0.00	605.92	11853.09	

FLOW DISTRIBUTION FOR SECNO= 7.61 CWSEL= 1805.12

STA= 11247. 11283. 11410. 11577. 11790. 11853.
PER W= 0.0 0.7 99.0 0.3 0.0
AREA= 10.1 119.0 1569.5 173.7 10.0
VEL= 0.4 1.7 8.2 0.3 0.1

1490 NH CARD USED
*SECNO 7.680

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11639.0 13620.0 TYPE= 1 TARGET= -11639.000

CL = 11300

7.68	10.42	1804.92	0.00	1804.90	1807.24	2.32	0.44	0.64	1808.30
13067.	0.	13067.	0.	0.	1069.	0.	1139.	312.	1809.50
0.52	0.00	12.23	0.00	0.060	0.025	0.160	0.000	1794.50	11722.83
0.002678	280.	280.	220.	3	0	0	0.00	139.46	11862.30

FLOW DISTRIBUTION FOR SECNO= 7.68 CWSEL= 1804.92

STA= 11723. 11930.
PER Q= 100.
AREA= 1068.8
VEL= 12.2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 7.970

3265 DIVIDED FLOW

3280 CROSS SECTION 7.97 EXTENDED 0.68 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12410.0 14200.0 TYPE= 1 TARGET= -12410.000
CL = 12520
Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.

Q100 BREAKOUT IN LOB MODELED SEPARATELY.

7.97	10.68	1816.68	1816.68	1816.63	1817.83	1.14	3.58	0.12	1812.90	
13534.	276.	9231.	4027.	125.	900.	1686.	1204.	343.	1812.40	
0.57	2.20	10.25	2.39	0.060	0.025	0.034	0.000	1806.80	12410.00	
0.001865	175	1610.	1340.	23	5	0	0.00	1785.30	14200.00	

0
FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1816.68

STA=	12410.	12454.	12563.	12597.	12669.	12701.	12736.	13250.	14200.
PER Q=	2.	68.2	5.5	6.6	3.6	4.6	5.7	3.6	
AREA=	125.3	900.3	123.6	196.1	93.9	111.5	445.6	725.5	
VEL=	2.2	10.3	6.1	4.8	5.3	5.6	1.7	0.7	

1490 NH CARD USED
*SECNO 8.190
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3280 CROSS SECTION 8.19 EXTENDED 0.19 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8940.0 11140.0 TYPE= 1 TARGET= -8940.000
START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	14.09	1824.69	1824.69	1824.83	1826.27	1.58	2.38	0.13	1823.90	
13534.	1.	9941.	3592.	1.	845.	3280.	1282.	385.	1823.90	
0.61	0.39	11.76	1.10	0.050	0.030	0.106	0.000	1810.60	8940.00	
0.002629	111	1140.	930.	23	15	0	0.00	2144.93	11140.00	

0
FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1824.69

STA=	8940.	8941.	9014.	9150.	9204.	9550.	10300.	10940.	11140.
PER Q=	0.	73.5	3.2	6.8	5.6	7.2	3.5	0.2	
AREA=	0.8	845.1	167.3	230.8	795.8	1267.1	731.3	87.9	
VEL=	0.9	11.8	2.6	4.0	1.0	0.8	0.6	0.3	

1490 NH CARD USED
*SECNO 8.270
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9000.0 10560.0 TYPE= 1 TARGET= -9000.000
LAKE MEAD BLVD BRIDGE
Q50 BREAKOUT IN LOB REDUCES DOWNSTREAM FLOWS. BREAKOUT NOT MODELED.
Q100 BREAKOUT IN LOB MODELED SEPARATELY.
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL
CL = 9050

8.27	12.27	1825.97	1825.97	1825.99	1827.54	1.57	0.68	0.00	1824.00	
15731.	16.	11275.	4449.	12.	954.	2345.	1308.	398.	1822.20	
0.62	1.37	11.82	1.89	0.060	0.025	0.051	0.000	1813.70	9000.00	
0.001802	353	330.	300.	23	9	0	0.00	1557.14	10557.14	

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FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1825.97

STA=	9000.	9006.	9094.	9290.	9400.	9500.	10557.
PER Q=	0.1	71.7	16.2	6.1	3.6	1.8	
AREA=	11.8	954.1	585.3	272.1	862.0	625.4	
VEL=	1.4	11.8	4.4	3.8	0.6	0.5	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3280 CROSS SECTION 8.27 EXTENDED 0.08 FEET

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9000.0 10560.0 TYPE= 1 TARGET= -9000.000
Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	12.38	1826.09	1826.08	1826.08	1827.17	1.09	0.01	0.14	1824.00	
15731.	268.	7886.	7577.	35.	693.	2493.	1308.	398.	1823.20	
0.62	7.70	11.38	3.24	0.120	0.030	0.052	0.000	1813.70	9000.00	
0.004587	5.	5.	5.	20	17	0	-116.68	1557.13	10560.00	

0
FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1826.08

STA=	9000.	9017.	9095.	9290.	9400.	9500.	10450.	10560.
PER Q=	1.7	50.1	27.2	11.4	6.2	3.2	0.2	
AREA=	34.3	692.9	602.0	283.5	913.8	630.2	63.5	
VEL=	7.7	11.4	7.1	6.3	1.1	0.8	0.5	

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310
3280 CROSS SECTION 8.31 EXTENDED 1.43 FEET

337 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

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SECNO DEPTH CWSEL CRIWS WSELK EG HV HL CLOSS BANK ELEV
Q QLOB QCH QROB ALOB ACH ARCB VOL TWA LEFT/RIGHT
TIME VLOB VCH VROB XNL XNCH XNR WTN ELMIN SSTA
SLOPE XLOBL XLCH XLOBR ITRIAL IDC ICONT CORAR TOPWID ENDST

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8900.0 11780.0 TYPE= 1 TARGET= -8900.000
CL = 9180

8.31	13.43	1827.43	1827.43	1827.43	1828.45	1.02	1.07	0.01	1824.10
15731.	898.	7486.	7346.	295.	643.	5638.	1335.	410.	1824.00
0.63	3.04	11.65	1.30	0.055	0.015	0.140	0.000	1814.00	8900.00

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 0.004501      235.      235.      235.         4        12         0  -125.60  2880.00 11780.00

FLOW DISTRIBUTION FOR SECNO=       8.31          CWSEL=    1827.43

STA=    8900.    8940.    9040.    9116.    9120.    9140.    9148.    9270.    9580.    9770.   10130.   11780.
  PER Q=    0.8      4.9     47.6      0.1      0.4      0.2      4.7     13.2      7.4      7.2     13.6
   AREA=   57.2    238.1    642.6     13.5     48.6     19.4    443.0   1187.6    689.9    875.2   2361.2
    VEL=    2.2      3.2     11.7      1.6      1.3      1.3      1.7      1.7      1.7      1.3      0.9

CCHV=   0.300 CEHV=   0.500
*SECNO 8.311
3280 CROSS SECTION       8.31 EXTENDED       1.86 FEET

3470 ENCROACHMENT STATIONS=     8900.0   11780.0  TYPE=      1  TARGET=   -8900.000
      8.31     13.86   1827.86      0.00   1827.86   1828.56      0.70      0.01      0.10   1824.10
    15731.      359.    11736.    3636.      282.     1514.     6713.     1335.      411.   1824.00
      0.63      1.27      7.75      0.54     0.055     0.025     0.140     0.000   1814.00   8900.00
 0.000647         5.        5.        5.         3         0         0      0.00   2880.00  11780.00

FLOW DISTRIBUTION FOR SECNO=       8.31          CWSEL=    1827.86

STA=    8900.    8940.    9014.    9140.    9148.    9270.    9580.    9770.   10130.   11780.
  PER Q=    0.5      1.8     74.6      0.1      2.2      6.0      3.4      3.6      7.9
   AREA=   74.3    207.8   1513.7     30.9    495.1   1320.1    771.1   1029.0   3066.4
    VEL=    1.       1.4      7.8      0.7      0.7      0.7      0.7      0.5      0.4

CCHV=   0.100 CEHV=   0.300
1490 NH CARD USED
*SECNO 8.610

3265 DIVIDED FLOW
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VCL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCFAR     TOPWID     ENDST


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     6880.0   11250.0  TYPE=      1  TARGET=   -6880.000
          CL = 8010
          Q50 BREAKOUT OVER PECOS REDUCES D/S FLOWS.  BREAKOUT NOT MODELED.
          Q100 BREAKOUT OVER PECOS MODELED SEPARATELY.
      8.61     12.07   1830.97   1830.97   1830.97   1832.97      2.00      1.94      0.39   1832.60
    17586.     3522.    14065.         0.      1889.     1111.         0.     1527.      472.   1832.30
      0.67      1.86      12.66      0.00     0.095     0.025     0.160     0.000   1818.90   6880.00
 0.003035      157.      1560.      1370.        20        12         0      0.00    870.62   8082.69

FLOW DISTRIBUTION FOR SECNO=       8.61          CWSEL=    1830.97

STA=    6880.    7000.    7430.    7844.    8094.
  PER Q=   10.8      9.0      0.2     80.0
   AREA=  410.3   1367.8    111.3   1110.5
    VEL=    4.5      1.2      0.3     12.7

1490 NH CARD USED
*SECNO 8.850
```

```
 3265 DIVIDED FLOW

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3475 ENCROACHMENT STATIONS=     4900.0    10080.0  TYPE=      1  TARGET=     5180.000
           CL = 7390
        8.85      12.27   1836.67   1836.67   1836.67   1838.29      1.62      3.23      0.04   1837.60
    17586.       2829.    14203.      555.      3534.     1250.     1304.     1664.       530.    1837.80
       .71         .80      11.37      .43       .161      .025      .161      .000   1824.41    4908.85
 0.002160      1370.     1250.     1200.          3            5         0      0.00   2959.16    9785.70

 FLOW DISTRIBUTION FOR SECNO=       8.85          CWSEL=    1836.67

 STA=     4909.     5248.     5626.     5977.     6356.     7188.     9786.
   PER Q=     3.8       4.5       4.9       2.9      80.8       3.2
    AREA=   834.7     969.8     992.6     736.6    1249.5    1303.6
     VEL=     0.8       0.9       0.9       0.7      11.4       0.4

1
   5-MAY-88     11:37:58                                                                    PAGE   45

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
     6         WLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TEA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     ICFLID      ENDST


 CCHV=   0.300 CEHV=    0.500
 1490 NH CARD USED
 *SECNO 8.900

 3265 DIVIDED FLOW

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3475 ENCROACHMENT STATIONS=     7700.0    12530.0  TYPE=      1  TARGET=     4830.000
           CAREY AVE BRIDGE
           NORMAL BRIDGE; APPROXIMATION OF ARCH CULVERT.
           MAY NEED TO MODIFY GR POINTS FOR VERY LOW FLOWS.
           CL = 10000
        8.90      12.97   1838.17   1838.17   1838.17   1839.72      1.55      0.43      0.02   1837.80
    19150.       2423.    16233.      489.      3614.     1497.     1282.     1696.       552.    1838.00
       .71         .67      10.95      .38       .146      .025      .155      .000   1825.20    7741.71
 0.001736       170.      230.      360.          4            8         0      0.00   4338.23   12530.00

 FLOW DISTRIBUTION FOR SECNO=       8.90          CWSEL=    1838.17

 STA=     7742.     8550.     8850.     9340.     9910.    10070.    12530.
   PER Q=     5.5       3.0       3.2       1.0      84.8       2.6
    AREA=  1638.9     764.8     846.8     344.0    1496.5    1281.8
     VEL=     0.6       0.7       0.7       0.6      10.8       0.4

 1490 NH CARD USED
 *SECNO 8.901

 3301 HV CHANGED MORE THAN HVINS


 3371 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1837.87 MAX ELLC= 1832.40


 3475 ENCROACHMENT STATIONS=     7700.0    12530.0  TYPE=      1  TARGET=     4830.000
        8.90      14.77   1839.97   1838.86   1839.97   1840.14      0.17      0.01      0.41   1837.80
    19150.       1048.     3320.     5422.     7657.      448.     5582.     1697.       552.    1838.00
```

```
      0.71      1.36      7.42      3.97     0.126     0.015     0.133     0.000  1825.20  7700.00
 0.002427         5.        5.        5.        14         6         0  -488.59  4830.00 12530.00
```


SECNO	DEPTH	C#SEL	CRIWS	#SELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.90 C#SEL= 1839.57

STA=	7700.	8140.	8550.	8850.	9100.	9340.	9870.	9950.	10019.	10270.	11000.	11770.	12530.
PER Q=	8.5	10.3	8.5	6.3	6.9	11.1	3.1	17.3	4.3	4.4	11.3	8.3	
AREA=	1508.6	1649.8	1327.2	1031.0	701.7	1284.7	153.9	447.7	457.6	1249.5	2290.0	1585.2	
VEL=	1.1	1.2	1.2	1.2	1.9	1.7	3.9	7.4	1.8	0.7	0.9	1.0	

1490 NH CARD USED
*SECNO 8.910

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

3470 ENCROACHMENT STATIONS= 7700.0 12530.0 TYPE= 1 TARGET= 4830.000
CL = 10000

```
      8.91     14.59  1840.19      0.00  1840.19  1840.31      0.12      0.16      0.01  1837.80
     19150.    10923.    2690.    5537.    8155.     396.    6140.     1720.      560.   1838.00
      0.72      1.34      6.78     0.90     0.125    0.015     0.143     0.000  1825.60  7700.00
 0.002138        70.       70.      70.         2        0         0  -455.59  4830.00 12530.00
```

FLOW DISTRIBUTION FOR SECNO= 8.91 C#SEL= 1840.19

STA=	7700.	8140.	8550.	8850.	9100.	9340.	9870.	9950.	10018.	10070.	10800.	11770.	12530.
PER Q=	8.8	10.2	8.7	6.5	7.3	12.0	3.5	14.0	3.5	4.3	14.3	6.9	
AREA=	1605.9	1740.5	1393.5	1086.3	754.8	1401.9	171.6	396.5	96.0	1291.0	2999.3	1753.3	
VEL=	1.3	1.1	1.2	1.1	1.8	1.6	4.0	6.8	6.9	0.6	0.9	0.8	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.911

3470 ENCROACHMENT STATIONS= 7700.0 12530.0 TYPE= 1 TARGET= 4830.000
Q25 REDUCED FOR LOB AND ROB BREAKOUTS. ROB RETURNS DOWNSTREAM
OF CAREY AVE BRIDGE. LOB RETURNS AT PECOS/LAKE MEAD.
Q50 BREAKOUT IN ROB DOES NOT RETURN TO CHANNEL.

```
      8.91     14.41  1840.01      0.00  1840.01  1840.51      0.50      0.00      0.19  1828.00
     19150.     6147.    9180.    3822.    7920.    1123.    5922.     1722.      561.   1828.00
      0.72      0.78      8.18     0.65     0.109    0.025     0.103     0.000  1825.60  7700.00
 0.000563         5.        5.       5.         2        0         0     0.00  4830.00 12530.00
```


SECNO	DEPTH	C#SEL	CRIWS	#SELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T&A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.91 C#SEL= 1840.01

STA=	7700.	8140.	8550.	8850.	9100.	9340.	9870.	9945.	10025.	10070.	11770.	12530.
PER Q=	4.1	4.9	4.2	3.1	3.4	5.5	7.0	47.9	8.4	8.5	3.1	
AREA=	1524.2	1664.4	1337.8	1039.9	710.3	1303.5	340.2	1122.8	315.4	3994.7	1612.2	

```
     VEL=      0.5       3.6       0.6       3.6       0.9       0.8       3.9       8.2       5.1       0.4       0.4

1490 NH CARD USED
*SECNO 9.060

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4850.0     8750.0  TYPE=      1  TARGET=     3900.000
          CL = 7310
      9.06      14.32   1842.42   1842.42   1842.42   1843.76      1.34      0.77      0.42   1840.50
     19150.     3890.    12750.     2510.     5196.     1121.     3097.     1927.      634.    1841.10
      0.75       0.75     11.37      0.81      3.16      0.02      0.14      0.00   1828.10   4857.14
  0.002154       650.      820.      830.        20         6         0      0.00   3892.86   8750.00

FLOW DISTRIBUTION FOR SECNO=      9.06          CWSEL=   1842.42

STA=    4857.     7110.     7219.     7349.     8360.     8750.
  PER Q=     20.3       0.3      66.6       9.3       3.8
    AREA=   5065.5     130.6    1121.2    2346.2     750.3
     VEL=      0.8       0.5      11.4       0.6       1.0

CCHV=   0.100 CEHV=   0.300
1491 NH CARD USED
*SECNO 9.300

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4850.0     7900.0  TYPE=      1  TARGET=     3850.000
          CL = 7270
      9.30      11.98   1846.38   1846.38   1846.38   1847.26      0.88      2.57      0.05   1847.10
     19150.     3748.    13031.     2371.     1935.     1454.      805.     2097.      713.    1844.70
      0.80       1.94      8.96      2.94     0.042     0.026     0.036     0.000   1834.40   4976.16
  0.002187       1040.     1250.     1070.         3        10         0      0.00   2561.85   7900.00

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        GLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TIME    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCBAR     TOPWID      ENDST

FLOW DISTRIBUTION FOR SECNO=      9.30          CWSEL=   1846.38

STA=    4976.     6150.     6842.     7447.     7840.     7900.
  PER Q=      4.2      15.4      68.0      12.1       0.3
    AREA=    938.8     996.3    1453.9     167.4      37.9
     VEL=      0.9       3.0       9.0       3.0       1.4

CCHV=   0.300 CEHV=   0.500
1496 NH CARD USED
*SECNO 9.410

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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 3470 ENCROACHMENT STATIONS=   12700.0   16400.0  TYPE=     1  TARGET=    3700.000
          LAS VEGAS BLVD BRIDGE
          Q25 HAS BOUNDARIES FROM 9.41 TO 9.47 LIMITED WITH ET CARDS
          TO MAKE THEM CONSISTENT WITH LOCATION OF BREAKOUTS UPSTREAM.
          CL = 5430
     9.41      9.67  1850.17  1850.17  1850.17  1850.54     0.36     0.86     0.15  1847.90
   19150.     7759.     7519.     3871.     4776.     1015.     1892.     2188.      764.   1846.50
     0.84      1.62      7.41      2.05     0.044     0.025     0.039     0.000  1840.50 12700.00
 0.000983      847.      573.      330.        20        17         0      0.00  3700.00 16400.00
0
 FLOW DISTRIBUTION FOR SECNO=      9.41          CWSEL=   1850.17

 STA=   12700.   13410.   14000.   14250.   14700.   14900.   15065.   15184.   15306.   15370.   15496.   15579.   15735.
   PER Q=    5.8      8.5      3.3      7.2      4.1      3.7      3.1      3.2      1.6     39.3      3.4      4.8
     AREA=   617.0    987.8    511.1   1023.4    394.8    345.3    273.9    280.4    142.4   1014.9    247.6    391.6
      VEL=     1.4      1.6      1.3      1.3      2.0      2.1      2.2      2.2      2.1      7.4      2.6      2.3
 STA=   15735.   15815.   15950.   16400.
   PER Q=    3.6      4.3      4.4
     AREA=   251.7    334.0    666.9
      VEL=     2.7      2.3      1.3

 1490 NH CARD USED
 *SECNO 9.411
1
   5-MAY-68    11:37:58                                                                    PAGE   49

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VCL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 337  NORMAL BRIDGE,NRD= 11 MIN ELTRD= 1849.9  MAX ELLC= 1848.90

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=   12700.0   16400.0  TYPE=     1  TARGET=    3700.000
     9.41     10.58  1851.08  1851.08  1851.08  1851.60     0.52     0.01     0.08  1847.80
   19150.    12381.     4267.     2501.     3943.      394.      913.     2188.      764.   1847.80
     0.84      3.14     10.82      2.74     0.043     0.015     0.041     0.000  1840.50 12700.00
 0.004229        5.        5.        5.        20        10         0 -2790.50  3700.00 16400.00
0
 FLOW DISTRIBUTION FOR SECNO=      9.41          CWSEL=   1851.08

 STA=   12700.   12963.   14000.   14150.   14700.   14900.   15000.   15391.   15459.   16120.   16400.
   PER Q=    3.9     37.6      5.4      7.0      3.6      5.0      2.1     22.3     10.2      2.9
     AREA=   289.2   1956.6    357.2    699.8    236.3    218.1    185.7    394.2    614.5    298.8
      VEL=     2.6      3.7      2.9      1.5      2.9      4.4      2.2     10.8      3.2      1.8

 1490 NH CARD USED
 *SECNO 9.430

 3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 1850.00 MAX ELLC= 1851.00


 3470 ENCROACHMENT STATIONS=   12350.0   15900.0  TYPE=     1  TARGET=    3550.000
          SPLIT FLOW MODELED AS WEIR FLOW OVER LVB; WEIR LENGTH LIMITED TO
          APPROX 1000 FT BY EFFECTIVE FLOW EXPANSION FROM 9.47.
          CL = 5050
     9.43      9.91  1851.71     0.00  1851.71  1852.10     0.39     0.46     0.04  1849.20
   24000.    18757.     3579.     1665.     4721.      393.      608.     2202.      774.   1849.20
     0.85      3.97      9.10      2.74     0.037     0.015     0.036     0.000  1841.60 12350.00
 0.004132      110.      110.      110.         3         0         0  -541.01  3550.00 15900.00
0
```

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1851.71

STA=	12350.	12970.	13300.	13820.	14500.	14680.	15020.	15087.	15750.	15900.
PER Q=	17.3	12.7	21.4	21.9	3.4	1.6	14.9	3.9	3.0	
AREA=	1062.5	685.5	1125.1	1267.3	335.5	245.2	393.1	378.0	230.1	
VEL=	3.9	4.6	4.6	4.1	2.4	1.6	9.1	2.5	3.2	

1

SECNO	DEPTH	CWSEL	CRIWS	AREA	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCH	VOL	TIA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.431

347 ENCROACHMENT STATIONS= 12350.0 15900.0 TYPE= 1 TARGET= 3550.000

9.43	9.87	1851.67	0.00	1851.67	1852.16	0.49	0.01	0.05	1850.00	
24000.	15171.	8761.	2068.	5327.	700.	996.	2203.	774.	1850.00	
0.85	2.35	9.66	2.08	0.038	0.025	0.040	0.000	1841.80	12350.00	
0.002022	5.	5.	5.	2	0	0	0.00	3550.00	15900.00	

6
FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1851.67

STA=	12350.	13700.	14000.	14400.	15000.	15100.	15900.
PER Q=	38.5	8.7	9.4	6.5	28.2	8.6	
AREA=	2905.1	651.1	768.2	1002.2	700.0	996.3	
VEL=	3.2	3.2	2.9	1.6	9.7	2.1	

1490 NH CARD USED
*SECNO 9.470

347 ENCROACHMENT STATIONS= 4940.0 8521.0 TYPE= 1 TARGET= 3581.000
CL = 7740

9.47	9.90	1852.20	0.00	1852.20	1852.59	0.39	0.40	0.03	1852.00	
24000.	12923.	8156.	2916.	5472.	1020.	1454.	2235.	785.	1850.70	
0.86	2.36	8.00	2.01	0.052	0.027	0.060	0.000	1842.30	4940.04	
0.002286	185.	185.	185.	2	0	0	0.00	3580.96	8521.00	

L
FLOW DISTRIBUTION FOR SECNO= 9.47 CWSEL= 1852.20

STA=	4940.	5380.	5631.	5861.	6040.	6171.	6298.	6412.	6568.	6675.	6804.	6928.	7041.
PER Q=	3.6	4.1	3.6	4.1	3.0	4.1	3.4	4.1	4.1	4.7	3.4	4.1	
AREA=	567.5	512.4	456.7	446.6	330.6	393.5	337.5	424.3	363.8	306.3	249.5	269.3	
VEL=	1.5	1.9	1.9	2.2	2.2	2.5	2.4	2.3	2.7	3.6	3.3	3.6	
STA=	7041.	7142.	7345.	7655.	7845.	8129.	8324.	8512.	8521.				
PER Q=	3.2	3.1	1.5	34.0	3.9	4.7	3.5	0.1					
AREA=	221.0	299.9	293.4	1019.6	525.3	502.4	409.7	16.6					
VEL=	3.4	2.4	1.2	8.0	1.8	2.2	2.0	1.6					

1

TN BREAKOUT OVER ROB ABOVE LAMB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
574.9	0.79	2.59	1.24	2050.0	465.4

ASG	QCOMP	ERRAC	TASG	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
453.22	453.43	0.05	453.22	453.43	0.05	13	1785.585	1793.141	6.760	7.140

TN BREAKOUT OVER LOB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
409.9	1.23	1.58	0.79	1930.0	517.3

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
466.81	504.36	7.85	920.03	958.39	4.08	13	1802.721	1816.685	7.610	7.970

TN BREAKOUT OVER LOB RIDGE

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1106.3	2.86	1.97	0.84	1450.0	1317.0

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
2196.99	2279.66	3.69	3117.32	3238.06	3.81	13	1816.685	1825.974	7.970	8.270

TN BREAKOUT OVER PECOS RD U/S LAKE MEAD

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1710.3	1.87	1.99	0.85	2010.0	2010.0

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
1855.48	1827.64	1.51	4972.50	5065.69	1.86	13	1825.974	1830.979	8.270	8.610

TN BREAKOUT OVER PECOS RD - LAKE MEAD TO CAREY

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1675.8	0.93	0.97	0.83	2090.0	2020.2

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
1563.17	1563.82	0.04	6535.68	6629.51	1.43	13	1830.570	1838.166	8.610	8.900

TN BREAKOUT OVER PECOS RD - CAREY TO LVB

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
289.5	0.44	0.91	0.45	2800.0	638.2

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
128.30	128.29	0.00	6663.97	6757.81	1.40	13	1838.166	1851.707	8.900	9.430

TW WEIR OVER LVB EAST OF PECOS - GOES TO OVERBANK MODEL

ASQ	QCOMP	ERRAC	TASQ	TCG	TABER	NITER	DSLS	USLS	DSSNO	USSNO
4722.08	4722.07	0.00	11386.08	11479.68	0.82	13	1851.081	1851.707	9.411	9.430

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - LAMB EL

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6.710	0.00	0.00	0.00	1769.30	11723.75	1784.00	0.00	1785.79	28.01	10.74	1091.27	2215.14
	6.710	0.00	0.00	0.00	1769.30	23546.78	1785.00	0.00	1785.34	12.53	7.49	14348.28	6653.35
	6.750	220.00	0.00	0.00	1770.90	11723.75	1785.78	0.00	1786.38	5.50	6.24	1893.10	5001.00
	6.750	220.00	0.00	0.00	1770.90	23546.78	1785.29	0.00	1785.50	4.58	5.56	19054.78	10997.16
	6.751	5.00	1783.00	1783.00	1770.90	11723.75	1785.67	0.00	1786.50	43.37	7.30	1619.25	1780.26
	6.751	5.00	1783.00	1783.00	1770.90	23546.78	1785.52	0.00	1785.56	6.60	2.82	20856.20	9164.71
	6.760	100.00	1783.00	1783.20	1771.10	11723.75	1786.16	0.00	1786.92	38.05	7.02	1674.94	1900.65
	6.760	100.00	1783.00	1783.20	1771.10	23546.78	1785.59	0.00	1785.63	7.69	3.05	19652.01	8493.30
	6.761	220.00	0.00	0.00	1771.10	11723.75	1786.66	0.00	1787.21	4.63	5.93	1982.34	5445.59
	6.761	220.00	0.00	0.00	1771.10	23546.78	1785.61	0.00	1785.79	4.16	5.32	19970.12	11549.72
*	6.920	330.00	0.00	0.00	1777.70	11723.75	1788.63	1788.63	1792.84	72.59	16.45	712.53	1376.06
*	6.920	330.00	0.00	0.00	1777.70	23546.78	1791.37	1791.37	1791.37	0.41	1.44	54051.31	36641.26
*	7.140	1200.00	0.00	0.00	1779.20	10135.79	1794.92	0.00	1795.12	6.68	4.45	4538.18	3863.96
*	7.140	1200.00	0.00	0.00	1779.20	13067.18	1793.14	1793.14	1794.33	52.49	9.90	2455.40	1803.56
*	7.340	1050.00	0.00	0.00	1785.50	10135.79	1794.47	1794.47	1797.82	50.63	14.69	690.15	1424.44
	7.340	1050.00	0.00	0.00	1785.50	13067.18	1796.24	0.00	1799.66	41.68	14.84	880.49	2023.94
	7.600	1360.00	0.00	0.00	1793.80	10135.79	1801.44	0.00	1803.09	25.64	10.32	981.73	2001.62
	7.600	1360.00	0.00	0.00	1793.80	13067.18	1802.55	0.00	1804.54	26.34	11.31	1155.07	2546.17
	7.601	5.00	1803.80	1803.90	1793.80	10135.79	1801.17	0.00	1803.39	58.17	11.94	848.64	1328.92
	7.601	5.00	1803.80	1803.90	1793.80	13067.18	1802.23	0.00	1804.90	62.41	13.11	996.47	1654.01
	7.610	70.00	1803.80	1803.90	1793.80	10135.79	1801.57	0.00	1803.81	58.44	12.00	844.43	1325.94
	7.610	70.00	1803.80	1803.90	1793.80	13067.18	1802.72	1802.06	1805.60	122.58	13.61	959.93	1180.24

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	7.611	5.00	0.00	0.00	1793.90	10135.79	1803.15	0.00	1804.18	12.83	8.16	1242.38	2829.89
	7.611	5.00	0.00	0.00	1793.90	13067.18	1805.12	0.00	1806.16	9.93	8.24	1882.22	4146.45
	7.680	280.00	0.00	0.00	1794.50	10135.79	1803.05	0.00	1805.42	36.96	12.37	819.22	1667.26
	7.680	280.00	0.00	0.00	1794.50	13067.18	1804.92	0.00	1807.24	28.78	12.23	1068.77	2435.66
*	7.970	1610.00	0.00	0.00	1806.00	10165.20	1815.60	1815.60	1817.11	23.95	10.73	1286.03	2077.02
*	7.970	1610.00	0.00	0.00	1806.00	13533.99	1816.68	1816.68	1817.83	18.65	10.25	2711.66	3133.51
*	8.190	1140.00	0.00	0.00	1810.60	10165.20	1821.14	1821.14	1825.73	80.95	17.20	551.10	1129.84
*	8.190	1140.00	0.00	0.00	1810.60	13533.99	1824.69	1824.69	1826.27	26.29	11.76	4126.06	2639.32
	8.270	330.00	0.00	0.00	1813.70	10432.20	1824.92	0.00	1827.20	21.73	12.12	860.98	2238.01

*	8.270	330.00	0.00	0.00	1813.70	15730.98	1825.97	1825.97	1827.54	18.02	11.82	3310.77	3705.46
	8.271	5.00	1823.20	1821.70	1813.70	10432.20	1826.90	1825.36	1827.66	20.04	7.94	1565.52	2330.16
*	8.271	5.00	1823.20	1821.70	1813.70	15730.98	1826.08	1826.08	1827.17	45.87	11.38	3220.79	2322.74
*	8.310	235.00	1823.20	1822.00	1814.00	10432.20	1827.39	1827.39	1829.64	59.04	13.30	1445.85	1357.64
*	8.310	235.00	1823.20	1822.00	1814.00	15730.98	1827.43	1827.43	1828.45	45.01	11.65	6576.36	2344.76
	8.311	5.00	0.00	0.00	1814.00	10432.20	1829.89	0.00	1830.20	2.54	5.37	3038.62	6546.09
	8.311	5.00	0.00	0.00	1814.00	15730.98	1827.86	0.00	1828.56	6.47	7.75	8508.37	6185.49
	8.610	1560.00	0.00	0.00	1818.90	10721.21	1830.11	0.00	1831.24	15.94	9.19	2330.30	2684.95
*	8.610	1560.00	0.00	0.00	1818.90	17586.46	1830.97	1830.97	1832.97	30.35	12.66	3000.01	3192.38
*	8.850	1250.00	0.00	0.00	1824.40	10721.21	1832.40	1832.40	1835.83	51.37	14.86	721.72	1495.91
*	8.850	1250.00	0.00	0.00	1824.40	17586.46	1836.67	1836.67	1838.29	21.60	11.37	6086.84	3783.78
	8.900	230.00	0.00	0.00	1825.20	10722.47	1835.61	0.00	1837.07	17.97	9.70	1105.30	2529.42
*	8.900	230.00	0.00	0.00	1825.20	19149.63	1838.17	1838.17	1839.72	17.38	10.85	6392.78	4593.79
*	8.901	5.00	1837.80	1832.40	1825.20	10722.47	1838.67	1838.67	1839.21	56.44	10.00	5556.77	1427.26
	8.901	5.00	1837.80	1832.40	1825.20	19149.63	1839.97	1838.86	1840.14	24.27	7.42	13686.92	3887.13
	8.910	70.00	1837.80	1832.80	1825.60	10722.47	1839.41	0.00	1839.57	24.33	6.57	7895.31	2173.84
	8.910	70.00	1837.80	1832.80	1825.60	19149.63	1840.19	0.00	1840.31	21.38	6.78	14690.67	4141.15
	8.911	5.00	0.00	0.00	1825.60	10722.47	1839.34	0.00	1839.65	3.06	5.83	8831.92	6132.42
	8.911	5.00	0.00	0.00	1825.60	19149.63	1840.01	0.00	1840.51	5.63	8.18	14965.38	8068.45
*	9.060	820.00	0.00	0.00	1828.10	10722.47	1840.57	1840.57	1842.59	23.89	10.61	2850.01	2193.82
*	9.060	820.00	0.00	0.00	1828.10	19149.63	1842.42	1842.42	1843.76	21.54	11.37	9413.90	4125.96
*	9.300	1250.00	0.00	0.00	1834.40	10722.47	1845.36	1845.36	1846.25	21.57	7.96	2254.29	2308.62
*	9.300	1250.00	0.00	0.00	1834.40	19149.63	1846.38	1846.38	1847.26	21.87	8.96	4194.34	4094.56
*	9.410	570.00	0.00	0.00	1840.50	10722.47	1849.81	1849.81	1850.16	7.40	6.23	4768.52	3941.74
•	9.410	570.00	0.00	0.00	1840.50	19149.63	1850.17	1850.17	1850.54	9.83	7.41	7682.84	6107.91

	SECNO	XLCH	ELTRD	ELLC	ELMIN	G	CHSEL	CRITS	EG	10K*S	VCH	AREA	.01K
*	9.411	5.00	1849.90	1848.90	1840.50	10722.47	1850.55	1850.55	1851.06	31.20	9.30	3673.16	1919.54
•	9.411	5.00	1849.90	1848.90	1840.50	19149.63	1851.08	1851.08	1851.60	42.29	10.82	5250.31	2944.86
	9.430	110.00	1850.00	1851.00	1841.80	13000.00	1851.15	0.00	1851.48	34.58	8.11	3862.85	2210.67
	9.430	110.00	1850.00	1851.00	1841.80	24000.00	1851.71	0.00	1852.10	41.32	9.10	5722.22	3733.47
	9.431	5.00	0.00	0.00	1841.80	13000.00	1851.15	0.00	1851.49	13.03	7.36	5164.75	3602.06
	9.431	5.00	0.00	0.00	1841.80	24000.00	1851.67	0.00	1852.16	20.22	9.66	7022.95	5337.07
*	9.470	185.00	0.00	0.00	1842.30	13000.00	1852.08	1852.08	1852.21	7.76	4.59	7524.49	4667.84
	9.470	185.00	0.00	0.00	1842.30	24000.00	1852.20	0.00	1852.59	22.86	8.00	7946.06	5019.87

LAS VEGAS WASH - LAMB BL

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFWSP	DIFHSX	DIFKHS	TOPWID	XLCH
6.710	11723.75	1784.00	0.00	0.00	0.00	95.18	0.00

	6.710	23546.78	1785.00	1.00	0.00	0.00	9439.00	0.00
	6.750	11723.75	1785.78	0.00	1.76	0.00	150.00	220.00
	6.750	23546.78	1785.29	-0.48	0.29	0.00	9136.25	220.00
	6.751	11723.75	1785.67	0.00	-0.10	0.00	150.00	5.00
	6.751	23546.78	1785.52	-0.15	0.23	0.00	9173.38	5.00
	6.760	11723.75	1786.16	0.00	0.48	0.00	146.00	100.00
	6.760	23546.78	1785.59	-0.57	0.07	0.00	9151.24	100.00
	6.761	11723.75	1786.66	0.00	0.51	0.00	146.00	220.00
	6.761	23546.78	1785.61	-1.06	0.02	0.00	9152.77	220.00
*	6.920	11723.75	1793.63	0.00	1.97	0.00	84.74	830.00
*	6.920	23546.78	1791.37	2.74	5.76	0.00	10626.33	830.00
	7.140	10135.79	1794.92	0.00	6.29	0.00	1170.00	1200.00
*	7.140	13067.18	1793.14	-1.78	1.77	0.00	1172.05	1200.00
*	7.340	10135.79	1794.47	0.00	-0.45	0.03	103.47	1050.00
	7.340	13067.18	1796.24	1.77	3.10	0.00	111.85	1050.00
	7.600	10135.79	1801.44	0.00	6.96	0.03	152.11	1360.00
	7.600	13067.18	1802.55	1.11	8.31	0.01	158.99	1360.00
	7.601	10135.79	1801.17	0.00	-0.26	0.03	137.05	5.00
	7.601	13067.18	1802.23	1.05	-0.32	0.01	143.34	5.00
	7.610	10135.79	1801.57	0.00	0.40	0.03	132.61	70.00
	7.610	13067.18	1802.72	1.15	0.49	0.01	169.31	70.00
	7.611	10135.79	1803.15	0.00	1.58	0.03	162.69	5.00
	7.611	13067.18	1805.12	1.97	2.40	0.02	605.92	5.00
	7.680	10135.79	1803.05	0.00	-0.10	0.03	126.98	280.00
	7.680	13067.18	1804.92	1.87	-0.20	0.02	139.46	280.00
*	7.970	10165.20	1815.60	0.00	12.55	0.02	602.88	1610.00
*	7.970	13533.99	1816.68	1.08	11.77	0.05	1785.30	1610.00
*	8.190	10165.20	1821.14	0.00	5.54	0.03	69.21	1140.00
*	8.190	13533.99	1824.69	3.55	8.00	-0.14	2144.93	1140.00
	8.270	10432.20	1824.92	0.00	3.78	0.05	88.00	330.00
*	8.270	15730.98	1825.97	1.06	1.28	-0.01	1557.14	330.00

SECNO	Q	CHSEL	DIFHSF	DIFHSX	DIFKHS	TCPHID	XLCH
8.271	10432.20	1826.90	0.00	1.98	0.07	287.16	5.00
* 8.271	15730.98	1826.08	-0.82	0.10	0.00	1557.13	5.00
* 8.310	10432.20	1827.39	0.00	0.49	0.02	370.00	235.00
* 8.310	15730.98	1827.43	0.04	1.35	0.00	2880.00	235.00
8.311	10432.20	1829.30	0.00	2.41	0.02	370.00	5.00
8.311	15730.98	1827.86	-1.94	0.43	0.00	288 .00	5.00
8.610	10721.21	1830.11	0.00	0.32	0.03	664.12	1560.00
• 8.610	17586.46	1830.97	0.86	3.11	0.00	870.62	1560.00
* 8.850	10721.21	1832.40	0.00	2.29	0.01	106.63	1250.00
* 8.850	17586.46	1836.67	4.27	5.70	0.00	2999.16	1250.00

	8.900	10722.47	1835.61	0.00	3.21	0.00	143.56	230.00
*	8.900	19149.63	1838.17	2.56	1.49	0.00	4338.23	230.00
*	8.901	10722.47	1838.67	0.00	3.86	0.00	3076.48	5.00
	8.901	19149.63	1839.97	1.30	1.81	0.00	4830.00	5.00
	8.910	10722.47	1839.41	0.00	0.74	0.00	3300.00	70.00
	8.910	19149.63	1840.19	0.78	0.22	0.00	483 .00	70.00
	8.911	10722.47	1839.34	0.00	-0.07	0.00	3300.00	5.00
	8.911	19149.63	1840.01	0.67	-0.19	0.00	4830.00	5.00
*	9.060	1 722.47	1840.97	0.00	1.63	0.00	2287.62	820.00
*	9.060	19149.63	1842.42	1.45	2.42	0.00	3892.86	820.00
*	9.300	10722.47	1845.36	0.00	4.38	0.00	1320.79	1250.00
*	9.300	19149.63	1846.38	1.02	3.96	0.00	2551.85	1250.00
*	9.410	10722.47	1849.81	0.00	4.45	0.00	2764.34	570.00
*	9.410	19149.63	1850.17	0.37	3.79	0.00	3700.00	570.00
•	9.411	10722.47	1850.55	0.00	0.75	0.00	3700.00	5.00
•	9.411	19149.63	1851.08	0.53	0.91	0.00	3700.00	5.00
	9.430	13000.00	1851.15	0.00	0.59	0.00	3402.97	110.00
	9.430	24000.00	1851.71	0.56	0.63	0.00	3550.00	110.00
	9.431	13000.00	1851.15	0.00	0.00	0.00	3550.00	5.00
	9.431	24000.00	1851.67	0.52	-0.04	0.00	3550.00	5.00
*	9.470	13000.00	1852.08	0.00	0.93	0.00	3569.17	185.00
	9.470	24000.00	1852.20	0.12	0.53	0.00	3580.96	185.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION	SECNO=	6.920	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	6.920	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	6.920	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	6.920	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	6.920	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	6.920	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	7.140	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	7.140	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	7.140	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	7.340	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	7.340	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	7.340	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	7.970	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	7.970	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	7.970	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	7.970	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	7.970	PROFILE= 2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	7.970	PROFILE= 2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	8.190	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	8.190	PROFILE= 1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	8.190	PROFILE= 1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	8.190	PROFILE= 2	CRITICAL DEPTH ASSUMED

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CAUTION  SECNO=    8.190  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.190  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.270  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.270  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.270  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.271  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.271  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.310  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.310  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.310  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    8.310  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.310  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=    8.610  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.610  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.610  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.850  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.850  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.850  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.850  PROFILE= 2  MINIMUM SPECIFIC ENERGY
1
  5-MAY-88    11:37:58                                                    PAGE   59


CAUTION  SECNO=    8.900  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.900  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=    8.901  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.901  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.901  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    9.060  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.060  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.060  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    9.060  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.060  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.060  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    9.300  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.300  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.300  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.300  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=    9.410  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.410  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.410  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    9.410  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.410  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.410  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    9.411  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.411  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.411  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    9.411  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.411  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.411  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    9.470  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    9.470  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    9.470  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
1
  5-MAY-88    11:54:33                                                    PAGE    1
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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..
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1**********************************************
 *  WATER SURFACE PROFILES                    *
 *  VERSION OF NOVEMBER 1976                  *
 *  UPDATED AUGUST 1983                       *
 *                                            *
 *  RUN DATE  28-APR-88 TIME   17:55:10       *
 **********************************************
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**********************************************
*  U.S. ARMY CORPS OF ENGINEERS              *
*  THE HYDROLOGIC ENGINEERING CENTER         *
*  609 SECOND STREET, SUITE D                *
*  DAVIS, CALIFORNIA 95616                   *
*  (916) 440-2105 (FTS) 448-2105             *
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X            X     X
X      X  X         X                  X     X
XXXXXXXX  XXXX      X           XXXXX   XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**********************************************

C
T1      CORFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2      JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3      LAS VEGAS WASH - LAMB BLVD TO LAS VEGAS BLVD  - NONDAMAGING FLOWS

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        0.        2.        0.        0.  0.002000      0.00      0.0       0.  1780.900     0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000


QT       4.000  6400.000 13000.000 24000.000 84000.000     0.000     0.000     0.000     0.000     0.000
ET       0.000     0.000     0.000     0.000     0.100     0.000     0.000     0.000 19300.000     0.000
NC       0.070     0.080     0.030     0.100     0.300     0.000     0.000     0.000     0.000     0.000
NH       9.000     0.130  4690.000     0.100 13425.000     0.130 14809.000     0.130 14942.000     0.035
NH   15039.000     0.045 16195.000     0.100 16755.000     0.045 21140.000     0.130 22860.000     0.000
X1       6.710    42.000 14942.000 15039.000   650.000   450.000   780.000     0.000     0.000     0.000
X4       2.000  1790.000  5200.000  1785.000  5600.000     0.000     0.000     0.000     0.000     0.000
X3      10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    1796.000  2685.000  1792.000  3960.000  1792.000  4690.000  1784.000  8200.000  1784.000 12020.000
GR    1784.000 13425.000  1780.000 14065.000  1780.000 14660.000  1777.400 14809.000  1777.600 14835.000
GR    1778.500 14910.000  1779.000 14914.000  1784.800 14942.000  1773.000 14956.000  1769.300 14987.000
GR    1769.300 14997.000  1769.300 15012.000  1771.900 15025.000  1784.800 15039.000  1781.900 15040.000
GR    1781.900 15071.000  1781.000 15110.000  1781.300 15136.000  1781.200 15150.000  1781.200 15167.000
GR    1780.000 15195.000  1782.100 15222.000  1782.100 15298.000  1781.800 15387.000  1779.800 15404.000
GR    1779.800 15461.000  1781.600 15472.000  1781.000 15531.000  1780.000 15640.000  1780.000 15710.000
GR    1782.000 16195.000  1782.000 16755.000  1784.000 21140.000  1784.000 21860.000  1788.000 22235.000
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GR	1792.000	22575.000	1796.000	22860.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	8.100	0.000	0.000	0.000	14050.000	0.000
NC	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000

LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q50 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

X1	6.750	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10073.000	0.000	14050.000	0.000
X1	6.751	32.000	9928.000	10072.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1771.400	10047.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	9928.000	1783.000	1782.000	9547.000	1783.000	1782.000	10053.000	1783.000	1782.000
BT	0.000	10072.000	1783.000	1783.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1771.400	9953.000
GR	1782.000	9953.000	1782.000	9957.000	1771.400	9957.000	1770.900	9998.000	1782.000	9998.000
GR	1782.000	10002.000	1770.900	10002.000	1771.400	10043.000	1782.000	10043.000	1782.000	10047.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10073.000	0.000	14050.000	0.000
X1	6.760	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.200	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	8.100	9927.000	10073.000	0.000	14050.000	0.000
X1	6.761	22.000	9928.000	10072.000	140.000	220.000	220.000	0.000	0.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1790.000	160.000	1784.000	1150.000	1784.000	2940.000	1783.000	6700.000	1783.500	7000.000
GR	1783.500	7800.000	1784.000	8250.000	1784.000	8800.000	1782.000	8900.000	1782.000	9250.000
GR	1780.000	9550.000	1780.000	9850.000	1783.000	9928.000	1771.400	9947.000	1770.900	10000.000
GR	1771.400	10053.000	1783.000	10072.000	1783.000	12000.000	1783.500	12400.000	1783.500	15600.000
GR	1784.000	15900.000	1788.000	16900.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	0.000	0.000	8.100	0.000	0.000	0.000	14100.000	0.000

CL = 11370

X1	6.920	36.000	11321.000	11410.000	580.000	840.000	830.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1790.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1793.000	680.000	1788.000	1000.000	1788.000	2000.000	1787.000	3500.000	1788.000	4850.000
GR	1785.000	6450.000	1785.000	9200.000	1784.000	9550.000	1784.000	10200.000	1784.000	10200.000
GR	1787.300	11000.000	1787.700	11145.000	1786.500	11169.000	1786.600	11200.000	1787.000	11289.000
GR	1791.000	11321.000	1781.800	11334.000	1777.700	11357.000	1777.700	11366.000	1779.000	11378.000
GR	1781.000	11406.000	1790.900	11410.000	1786.900	11426.000	1790.000	11437.000	1789.900	11504.000
GR	1788.300	11551.000	1788.100	11559.000	1788.100	11578.000	1788.100	11605.000	1788.100	11612.000
GR	1788.600	11622.000	1786.000	12100.000	1786.000	12300.000	1788.000	13600.000	1788.000	16450.000
GR	1792.000	17230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	11200.000	12370.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CL = 12260

X1	7.141	31.000	12150.000	12369.000	580.000	1250.000	1200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	450.000	1791.000	1050.000	1790.000	1500.000	1789.500	2300.000	1788.000	3700.000
GR	1789.000	4600.000	1789.000	6200.000	1788.000	7200.000	1788.000	10450.000	1792.500	11200.000

GR	1791.000	12000.000	1791.000	12114.000	1791.000	12150.000	1787.000	12224.000	1779.200	12259.000
GR	1779.200	12265.000	1782.400	12272.000	1785.600	12280.000	1792.000	12293.000	1792.000	12312.000
GR	1798.600	12369.000	1791.600	12391.000	1793.100	12412.000	1792.800	12524.000	1792.600	12729.000
GR	1791.500	12873.000	1791.800	12931.000	1792.000	12970.000	1794.000	13300.000	1795.000	14000.000

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GR	1795.000	16200.000	1796.000	16630.000	1800.000	16800.000	0.000	0.000	0.000	0.000
NH	4.000	0.050	10980.000	0.070	12321.000	0.125	12437.000	0.160	13730.000	0.000
	CL = 12378									
X1	7.340	33.000	12321.000	12437.000	600.000	1300.000	1050.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1800.000	150.000	1795.000	900.000	1790.000	3500.000	1792.000	5000.000	1792.000	6850.000
GR	1791.000	3600.000	1791.000	9550.000	1792.000	9600.000	1792.000	10000.000	1796.000	10980.000
GR	1796.000	12000.000	1796.300	12048.000	1795.800	12125.000	1796.600	12229.000	1795.700	12268.000
GR	1798.000	12321.000	1786.700	12343.000	1786.200	12358.000	1785.500	12371.000	1787.200	12411.000
GR	1796.500	12437.000	1794.100	12463.000	1794.100	12531.000	1794.100	12538.000	1796.900	12548.000
GR	1797.200	12571.000	1795.300	12600.000	1794.200	12626.000	1794.600	12642.000	1799.600	12656.000
GR	1804.400	12726.000	1800.500	12730.000	1804.000	13730.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	OWENS AVENUE BRIDGE - NORMAL BRIDGE ROUTINE - 2 FT DEBRIS LOADING									
	CL = 11490									
X1	7.600	24.000	11410.000	11577.000	1200.000	1350.000	1360.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.300	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11441.000	1793.800	11546.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11790.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.800	11440.000	1802.300	11440.000
GR	1802.300	11443.500	1793.800	11443.500	1793.900	11474.500	1802.300	11474.500	1802.300	11478.000
GR	1793.800	11478.000	1793.800	11509.000	1802.300	11509.000	1802.300	11512.500	1793.800	11512.500
GR	1793.800	11543.500	1802.300	11543.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	11280.000	11790.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.610	39.000	11410.000	11577.000	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-4.000	11410.000	1803.900	1803.900	11440.000	1803.900	1802.300	11547.000	1803.800	1802.300
BT	0.000	11577.000	1803.800	1803.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1800.000	600.000	1798.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1799.000	6250.000	1799.500	6800.000	1796.000	8000.000	1796.000	8290.000
GR	1797.000	8450.000	1797.000	8800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1793.900	11439.000	1802.300	11439.000

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GR	1802.300	11444.500	1793.900	11444.500	1793.900	11473.500	1802.300	11473.500	1802.300	11479.000
GR	1793.900	11479.000	1793.900	11508.000	1802.300	11508.000	1802.300	11513.500	1793.900	11513.500

GR	1793.900	11542.500	1802.300	11542.500	1802.300	11547.000	1793.800	11547.000	1803.800	11577.000
GR	1803.80[illegible]	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
ET	6.000	6.100	0.000	0.000	0.000	11280.000	11750.000	0.000	0.000	0.000
NH	6.000	0.045	6250.000	0.055	8000.000	0.045	9550.000	0.060	11410.000	0.025
NH	11577.000	0.160	12410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.611	24.000	11410.000	11577.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1804.000	200.000	1803.000	600.000	1758.000	1300.000	1796.500	1600.000	1796.500	3300.000
GR	1799.500	4300.000	1793.000	6250.000	1759.500	6800.000	1756.000	8000.000	1756.000	8290.000
GR	1757.000	8450.000	1737.000	9800.000	1800.000	9550.000	1800.000	9930.000	1804.000	10730.000
GR	1806.000	11200.000	1804.500	11280.000	1803.900	11410.000	1753.900	11441.000	1753.900	11547.000
GR	1803.800	11577.000	1804.800	11790.000	1805.700	11970.000	1808.000	12410.000	0.000	0.000
NH	6.000	0.040	5800.000	0.070	7700.000	0.040	10500.000	0.120	11640.000	0.025
NH	11930.000	0.160	13620.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 11800									
X1	7.680	32.000	11640.000	11930.000	290.000	220.000	280.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1810.000	400.000	1800.000	1650.000	1799.000	2200.000	1799.000	3750.000	1800.000	4000.000
GR	1802.000	4450.000	1801.000	5800.000	1801.000	6800.000	1801.000	7700.000	1800.000	8070.000
GR	1800.000	8350.000	1797.500	8550.000	1797.500	8700.000	1800.000	9060.000	1799.000	9250.000
GR	1799.000	9400.000	1800.000	9610.000	1804.000	10500.000	1804.400	11000.000	1808.300	11640.000
GR	1806.000	11710.000	1796.000	11760.000	1794.500	11790.000	1794.500	11830.000	1796.000	11840.000
GR	1806.000	11870.000	1809.500	11930.000	1806.500	12200.000	1806.800	12470.000	1808.000	12570.000
GR	1808.000	13100.000	1812.000	13620.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	6.000	6.100	0.000	0.000	0.000	12418.000	12665.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	3400.000	0.060	12470.000	0.025	12766.000	0.040	13400.000	0.160
NH	14200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 12521									
X1	7.970	34.000	12454.000	12563.000	1750.000	1340.000	1810.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	2.000	1813.000	11000.000	1813.000	11700.000	0.000	0.000	0.000	0.000	0.000
GR	1816.000	500.000	1812.000	1000.000	1810.000	1800.000	1810.000	2400.000	1813.000	3400.000
GR	1811.000	4600.000	1811.000	7500.000	1812.000	8500.000	1810.000	9450.000	1810.000	10000.000
GR	1815.200	12003.000	1815.600	12227.000	1815.600	12313.000	1813.600	12367.000	1815.100	12418.000
GR	1812.800	12442.000	1812.900	12454.000	1812.000	12470.000	1806.500	12503.000	1806.000	12515.000
GR	1806.000	12526.000	1806.700	12540.000	1808.800	12561.000	1812.400	12563.000	1813.700	12597.000
GR	1814.500	12669.000	1813.000	12701.000	1814.000	12736.000	1815.000	12756.000	1816.000	12766.000
GR	1816.700	12794.000	1815.000	13250.000	1816.000	13400.000	1816.000	14200.000	0.000	0.000
NH	6.000	0.040	2800.000	0.060	7800.000	0.050	8941.000	0.030	9014.000	0.050
NH	9204.000	0.140	11140.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE									
	CL = 8980									
X1	8.190	39.000	8941.000	9014.000	1110.000	930.000	1140.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1823.000	300.000	1817.000	1200.000	1816.000	2500.000	1820.000	3800.000	1818.000	4980.000
GR	1819.000	5810.000	1816.000	7030.000	1820.000	7800.000	1820.000	8000.000	1820.000	8000.000
GR	1819.200	8000.000	1819.600	8169.000	1815.400	8408.000	1820.100	8794.000	1820.500	8849.000

GR	1821.500	8875.000	1820.300	8921.000	1822.600	8927.000	1823.900	8941.000	1812.500	8952.000
GR	1810.600	8975.000	1810.600	8988.000	1813.200	9001.000	1814.100	9010.000	1823.500	9014.000
GR	1820.900	9040.000	1823.500	9062.000	1826.700	9084.000	1826.300	9115.000	1820.800	9150.000
GR	1819.500	9163.000	1821.500	9204.000	1822.000	9255.000	1823.000	9550.000	1823.000	10300.000
GR	1823.000	10530.000	1824.000	10650.000	1824.000	10940.000	1824.500	11140.000	0.000	0.000
ET	1.000	6260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4430.000	0.060	9006.000	0.025	9094.000	0.020	9400.000	0.140
NH	10560.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	LAKE MEAD BLVD BRIDGE									
	CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL									
X1	8.270	23.000	9006.000	9094.000	350.000	300.000	330.000	0.000	0.000	0.000

X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1819.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1814.000	9018.000	1813.700	9050.000	1814.000	9082.000
GR	1822.200	9094.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9900.000
GR	1825.000	10050.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
GT	1.000	5380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4430.000	0.060	9006.000	0.015	9095.000	0.030	9400.000	0.140
NH	10560.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

X1	8.271	48.000	9017.000	9095.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
BT	-4.000	9006.000	1824.000	0.000	9017.000	1824.100	1821.700	9025.000	1823.200	1821.700
BT	0.000	9095.000	1823.200	1821.700	0.000	0.000	0.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1819.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9017.000	1813.700	9025.000
GR	1821.700	9028.300	1813.700	9028.300	1813.700	9034.300	1821.700	9034.300	1821.700	9037.600
GR	1813.700	9037.600	1813.700	9043.600	1821.700	9043.600	1821.700	9047.200	1813.700	9047.200
GR	1813.700	9057.200	1821.700	9057.200	1821.700	9060.000	1813.700	9060.000	1813.700	9070.000
GR	1821.700	9073.000	1921.700	9073.000	1813.700	9073.000	1813.700	9083.000	1821.700	9083.000
GR	1821.700	9086.600	1813.700	9086.600	1813.700	9095.000	1823.200	9095.000	1823.200	9095.000
GR	1822.200	9096.000	1823.000	9100.000	1823.000	9290.000	1824.000	9400.000	1824.500	9900.000
GR	1825.000	10050.000	1825.000	10450.000	1826.000	10560.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8940.000	9140.000	0.000	0.000	0.000
NC	0.055	0.140	0.015	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	8.310	48.000	9040.000	9116.000	235.000	235.000	235.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-5.000	8940.000	1824.000	0.000	9040.000	1824.100	1822.000	9046.000	1823.200	1822.000
BT	0.000	9116.000	1824.100	1822.000	9120.000	1824.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9040.000	1814.000	9040.000	1814.000	9046.000
GR	1822.000	9046.000	1822.000	9051.300	1814.000	9051.300	1814.000	9055.300	1822.000	9055.300
GR	1822.000	9060.600	1814.000	9060.600	1814.000	9064.600	1822.000	9064.600	1822.000	9070.200

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GR	1814.000	9070.200	1814.000	9078.200	1822.000	9078.200	1822.000	9083.000	1814.000	9083.000
GR	1814.000	9091.000	1822.000	9091.000	1822.000	9096.000	1814.000	9096.000	1814.000	9104.000
GR	1822.000	9104.000	1822.000	9109.600	1814.000	9109.600	1814.000	9116.000	1824.000	9116.000
GR	1824.000	9120.000	1826.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
GT	1.000	5520.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8900.000	9270.000	0.000	0.000	0.000
NC	0.055	0.140	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	8.311	23.000	9014.000	9140.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	1814.500	9034.000	1814.000	9075.000
GR	1814.500	9120.000	1824.000	9140.000	1824.000	9148.000	1823.600	9270.000	1823.600	9580.000
GR	1824.000	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.040	2020.000	0.060	3700.000	0.160	5380.000	0.040	7000.000	0.160
NH	7863.000	0.025	8094.000	0.160	11250.000	0.000	0.000	0.000	0.000	0.000
X1	8.610	39.000	7863.000	8094.000	1570.000	1370.000	1560.000	0.000	0.000	0.000

X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	3.000	1830.500	2900.000	1830.000	7400.000	1832.000	7700.000	0.000	0.000	0.000
GR	1832.000	0.000	1830.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.000	5970.000	1827.100	6250.000	1827.000	6730.000	1830.000	6880.000	1825.100	7000.000
GR	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000
GR	1832.700	7754.000	1830.200	7793.000	1830.200	7836.000	1832.800	7863.000	1832.600	7923.000
GR	1829.900	7952.000	1822.700	7970.000	1818.900	8025.000	1826.100	8039.000	1822.100	8062.000
GR	1830.300	8077.000	1832.300	8094.000	1832.300	8135.000	1832.400	8173.000	1832.000	8180.000
GR	1832.000	8710.000	1832.000	9180.000	1832.000	9230.000	1832.000	10070.000	1832.400	10360.000
GR	1833.000	10500.000	1834.000	10750.000	1834.000	11100.000	1836.000	11250.000	0.000	0.000
NH	4.000	0.040	1700.000	0.160	7007.000	0.025	7188.000	0.160	11180.000	0.000
X1	8.850	49.000	7007.000	7188.000	1370.000	1200.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.000	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	1833.300	5000.000	1834.200	5102.000	1833.900	5248.000	1834.600	5315.000
GR	1833.900	5362.000	1834.000	5458.000	1834.200	5626.000	1834.000	5773.000	1833.500	5856.000
GR	1833.700	5977.000	1834.600	6004.000	1834.800	6111.000	1832.700	6220.000	1837.700	6395.000
GR	1837.700	6554.000	1838.100	6837.000	1838.800	6858.000	1839.400	6879.000	1837.500	6900.000
GR	1837.200	6953.000	1837.000	6981.000	1837.600	7007.000	1834.400	7013.000	1833.000	7025.000
GR	1827.300	7031.000	1825.100	7044.000	1824.400	7064.000	1824.400	7099.000	1826.200	7119.000
GR	1825.900	7122.000	1833.500	7134.000	1835.600	7142.000	1837.700	7163.000	1837.800	7188.000
GR	1837.800	7250.000	1838.000	7420.000	1838.000	8170.000	1835.500	8550.000	1835.700	9570.000
GR	1836.000	10083.000	1840.000	10450.000	1842.000	10870.000	1844.000	11180.000	0.000	0.000
GT	1.000	5450.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	8.900	35.000	5910.000	10070.000	170.000	360.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1827.500	4500.000	1827.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.500	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1827.800	9890.000
GR	1837.800	9910.000	1827.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000
GR	1838.000	10019.000	1838.000	10270.000	1835.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.901	50.000	9950.000	10019.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.400
BT	0.000	9938.000	1838.700	1832.400	10019.000	1838.500	1832.400	10070.000	1838.200	0.000
BT	0.000	11270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1827.500	4500.000	1827.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.500	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1827.800	9890.000
GR	1837.800	9910.000	1827.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000
GR	1838.000	10019.000	1838.000	10270.000	1835.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000
ET	0.000	6.100	0.000	0.000	0.000	9890.000	10430.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	8.910	50.000	9950.000	10018.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.100	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.800
BT	0.000	9988.000	1838.700	1832.800	10018.000	1838.500	1832.800	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9945.000	1825.600	9950.000	1825.600	9958.000	1832.800	9958.000
GR	1832.800	9965.000	1825.600	9965.000	1825.600	9973.000	1832.800	9973.000	1832.800	9980.000
GR	1825.600	9980.000	1825.600	9988.000	1832.800	9988.000	1832.800	9995.000	1825.600	9995.000
GR	1825.600	10003.000	1832.800	10003.000	1832.800	10010.000	1825.600	10010.000	1825.600	10018.000
GR	1838.000	10018.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000

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GT	1.000	5520.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9910.000	10500.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	13920.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.911	35.000	9945.000	10025.000	5.000	5.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	2.000	1840.000	2800.000	1836.500	6960.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9911.000	1828.000	9945.000	1825.600	9960.000	1825.600	10015.000	1828.000	10025.000
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13200.000	1842.000	13250.000	1844.000	13580.000	1844.000	13900.000	1846.000	13920.000

GT	1.000	3875.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7186.000	7361.000	0.000	0.000	0.000
NH	5.000	0.040	2000.000	0.160	7219.000	0.025	7349.000	0.160	8360.000	0.110
NH	10960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.06	32.000	7219.000	7349.000	650.000	830.000	820.000	0.000	0.000	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2000.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	1840.900	5000.000	1840.000	5350.000	1840.000	7110.000
GR	1842.300	7186.000	1840.500	7219.000	1840.700	7238.000	1833.300	7255.000	1828.100	7301.000
GR	1832.100	7328.000	1841.100	7349.000	1841.900	7361.000	1840.300	7375.000	1840.700	7406.000
GR	1840.300	7451.000	1840.000	7670.000	1840.000	8360.000	1841.000	8750.000	1841.200	9140.000
GR	1842.000	9180.000	1842.500	9450.000	1843.100	9900.000	1844.000	10100.000	1846.000	10510.000
GR	1846.000	10700.000	1846.500	10960.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4000.000	0.160	4850.000	0.035	5750.000	0.130	6630.000	0.030
NH	7212.000	0.026	7447.000	0.036	7500.000	0.050	8700.000	0.160	11320.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	6990.000	7500.000	0.000	0.000	0.000
X1	9.300	39.000	7212.000	7447.000	1040.000	1070.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	7500.000	1846.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	1000.000	1845.000	1880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1848.000	4850.000	1846.800	4950.000	1846.000	5000.000	1846.000	5300.000	1845.700	5430.000
GR	1846.200	5750.000	1843.500	6150.000	1847.000	6990.000	1847.000	7162.000	1847.100	7212.000
GR	1837.800	7232.000	1835.200	7252.000	1834.400	7263.000	1837.800	7291.000	1842.100	7307.000
GR	1841.400	7327.000	1840.400	7346.000	1840.900	7376.000	1841.200	7390.000	1840.200	7407.000
GR	1843.800	7422.000	1844.700	7447.000	1843.400	7468.000	1845.500	7840.000	1846.000	7900.000
GR	1845.500	7980.000	1845.500	8700.000	1845.500	9520.000	1846.000	9760.000	1848.000	10000.000
GR	1850.000	10400.000	1850.000	11080.000	1851.300	11150.000	1852.000	11320.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	4900.000	6120.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.025
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	8900.000	0.000	0.000	0.000

X1	9.410	43.000	5370.000	5496.000	840.000	330.000	570.000	0.000	0.000	0.000
X4	3.000	1850.000	-300.000	1850.000	1800.000	1848.500	3410.000	0.000	0.000	0.000
GR	1853.000	-800.000	1849.000	2200.000	1845.000	2650.000	1845.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.300	4250.000	1847.900	4700.000	1848.500	4900.000
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000
GR	1847.900	5264.000	1847.900	5306.000	1846.000	5352.000	1847.900	5370.000	1840.500	5389.000
GR	1840.500	5417.000	1840.500	5461.000	1845.400	5480.000	1846.900	5496.000	1847.400	5535.000
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1850.000	7650.000
GR	1850.000	8000.000	1852.000	8280.000	1854.000	8900.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	4500.000	6120.000	0.000	0.000	0.000
NH	8.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.015
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	8900.000	0.000	0.000	0.000
X1	9.411	58.000	5391.000	5459.000	5.000	5.000	5.000	0.000	0.000	0.000
X4	1.000	1848.500	3410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-19.000	2760.000	1849.900	1849.900	3410.000	1849.000	1848.500	4000.000	1848.900	1848.500
BT	0.000	4250.000	1849.900	1847.900	5065.000	1849.900	1847.900	5184.000	1850.700	1847.900
BT	0.000	5264.000	1851.300	1847.900	5391.000	1851.400	1847.800	5459.000	1851.400	1847.800
BT	0.000	5559.000	1851.000	1847.800	5676.000	1851.000	1848.900	5735.000	1851.000	1846.100
BT	0.000	5762.000	1851.000	1848.300	5950.000	1851.100	1848.200	6200.000	1850.100	1848.300
BT	0.000	6600.000	1850.100	1849.000	7400.000	1850.100	1849.000	7650.000	1850.100	1850.000
BT	0.000	8000.000	1850.000	1850.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1850.000	1800.000	1849.000	2200.000	1845.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000
GR	1847.900	5264.000	1847.900	5306.000	1846.000	5352.000	1847.900	5370.000	1847.800	5391.000
GR	1840.500	5391.000	1840.500	5401.000	1847.800	5401.000	1847.800	5404.000	1840.500	5404.000
GR	1840.500	5415.000	1847.800	5415.000	1847.900	5418.000	1840.500	5418.000	1840.500	5429.000
GR	1847.800	5429.000	1847.800	5434.000	1840.500	5434.000	1840.500	5445.000	1847.800	5445.000
GR	1847.800	5448.000	1840.500	5448.000	1840.500	5459.000	1847.800	5459.000	1847.400	5535.000
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1850.000	7650.000
GR	1850.000	8000.000	1852.000	8280.000	1854.000	8900.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.080	2350.000	0.035	4500.000	0.060	5000.000	0.015	5120.000	0.040
NH	8630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.100	0.000	0.000	5000.000	5100.000	0.000	0.000	0.000	0.000
X1	9.430	48.000	5020.000	5087.000	110.000	110.000	110.000	0.000	0.000	0.000
X3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	1851.000	1851.000	0.000
BT	-14.000	4400.000	1850.000	1850.000	5000.000	1851.400	1850.000	5020.000	1851.400	1849.100
BT	0.000	5087.000	1850.100	1849.100	5120.000	1851.000	1851.000	5400.000	1851.800	1851.000
BT	0.000	5500.000	1851.200	1850.000	5600.000	1851.000	1850.000	5750.000	1850.200	1850.000
BT	0.000	6120.000	1850.000	1850.000	7200.000	1850.100	1849.500	7450.000	1850.600	1850.000
BT	0.000	8150.000	1852.700	1852.000	8630.000	1854.200	0.000	0.000	0.000	0.000
GR	1850.000	1500.000	1849.000	1750.000	1849.000	2250.000	1849.000	2250.000	1849.000	2250.000
GR	1850.000	2350.000	1850.000	2350.000	1850.000	2350.000	1849.500	2450.000	1849.500	3700.000
GR	1849.500	4000.000	1850.000	4400.000	1850.000	5000.000	1849.200	5020.000	1841.800	5020.000
GR	1841.800	5029.000	1849.100	5029.000	1849.100	5034.000	1841.800	5034.000	1841.800	5043.000
GR	1849.100	5043.000	1849.100	5048.000	1841.800	5048.000	1841.800	5057.000	1849.100	5057.000
GR	1849.100	5064.000	1841.800	5064.000	1841.800	5073.000	1849.100	5073.000	1849.100	5078.000

1

GR	1841.800	5078.000	1841.800	5087.000	1849.200	5087.000	1849.200	5087.000	1850.000	5100.000
GR	1850.000	5100.000	1851.000	5120.000	1851.000	5400.000	1850.000	5500.000	1850.000	5600.000
GR	1850.000	5750.000	1850.000	6120.000	1849.500	6200.000	1849.500	7200.000	1850.000	7450.000

GR	1852.000	8150.000	1854.000	8500.000	1854.200	8630.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	4470.000	5730.000	0.000	0.000	0.000
NC	0.600	0.300	0.300	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.090	2350.000	0.035	4500.000	0.060	5000.000	0.025	5100.000	0.040
NH	8630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.431	26.000	5000.000	5100.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1851.000	1851.000	0.000
GR	1850.000	1500.000	1849.000	1750.000	1849.000	2250.000	1849.000	2250.000	1849.000	2250.000
GR	1850.000	2350.000	1850.000	2350.000	1850.000	2350.000	1849.500	2450.000	1849.500	3700.000
GR	1849.500	4000.000	1850.000	4400.000	1850.000	5000.000	1841.800	5040.000	1841.800	5070.000
GR	1850.000	5100.000	1851.000	5120.000	1851.000	5400.000	1850.000	5500.000	1850.000	6120.000
GR	1849.500	6200.000	1849.500	7200.000	1850.000	7450.000	1852.000	8150.000	1854.000	8500.000
GR	1854.200	8630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7280.000	8200.000	0.000	0.000	0.000
NH	6.000	0.080	5000.000	0.060	6675.000	0.035	7300.000	0.060	7655.000	0.027
NH	7845.000	0.060	11250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.470	87.000	7655.000	7845.000	185.000	185.000	185.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1842.300	7728.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	4200.000	1851.000	4450.000	1850.000	4900.000	1850.000	4900.000	1850.000	4900.000
GR	1851.600	5000.000	1851.400	5059.000	1850.700	5063.000	1850.900	5115.000	1850.400	5147.000
GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11050.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	IBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 6.710

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1784.80 ELREA= 1784.80

6.71	11.60	1780.90	0.00	1780.90	1781.88	0.98	0.00	0.00	1784.80
6400.	0.	6400.	0.	0.	807.	0.	0.	0.	1784.80
0.00	0.00	7.93	0.00	0.000	0.035	0.000	0.000	1769.30	14946.63
0.002012	650.	780.	450.	0	0	0	0.00	88.14	15034.77

FLOW DISTRIBUTION FOR SECNO= 6.71 CHSEL= 1780.90

STA= 14947. 15039.
PER Q= 100.0
AREA= 807.1

VEL= 7.9

CCHV= 0.3[illegible] CEHV= 0.600
*SECNO 6.750

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.00 ELREA= 1783.00

LAMB BLVD - NORMAL BRIDGE ROUTINE - 1 FT DEBRIS LOADING
Q500 RESTRICTED TO 1:1 EXPANSION FROM 6.92 TO 6.16
CL = 10000

6.75	10.99	1781.89	0.00	0.00	1782.26	0.37	0.20	0.18	1783.00
6400.	0.	6400.	0.	0.	1319.	0.	5.	1.	1783.00
0.01	0.00	4.85	0.00	0.070	0.030	0.080	0.000	1770.90	9929.81
0.000511	140.	220.	220.	2	0	0	0.00	140.38	10070.19

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1781.89

STA= 9930. 10072.
PER Q= 100.0
AREA= 1319.4
VEL= 4.9

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
6	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPLID	ENDST

*SECNO 6.751

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.00

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.00 ELREA= 1783.00

6.75	10.95	1781.85	0.00	0.00	1782.31	0.46	0.00	0.04	1783.00
6400.	0.	6400.	0.	0.	1182.	0.	6.	1.	1783.00
0.01	0.00	5.42	0.00	0.070	0.030	0.080	0.000	1770.90	9929.88
0.001102	5.	5.	5.	2	0	0	0.00	128.24	10070.12

FLOW DISTRIBUTION FOR SECNO= 6.75 CWSEL= 1781.85

STA= 9930. 10072.
PER Q= 100.0
AREA= 1181.9
VEL= 5.4

*SECNO 6.760

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1783.00 MAX ELLC= 1783.20

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.20 ELREA= 1783.20

6.76	10.86	1781.96	0.00	0.00	1782.42	0.46	0.11	0.00	1783.20
6400.	0.	6400.	0.	0.	1170.	0.	8.	1.	1783.20
0.02	0.00	5.47	0.00	0.070	0.030	0.080	0.000	1771.10	9930.03
0.001133	130.	130.	130.	2	0	0	0.00	127.93	10069.97

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.76 CWSEL= 1781.96

STA= 9930. 10072.
PER Q= 100.0
AREA= 1170.
VEL= 5.5

*SECNO 6.761

3470 ENCROACHMENT STATIONS= 9927.0 10073.0 TYPE= 1 TARGET= 146.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1783.20 ELREA= 1783.20

6.76	11.16	1782.26	0.00	0.00	1782.61	0.35	0.16	0.03	1783.20
6400.	0.	6400.	0.	0.	1343.	0.	15.	2.	1783.20
0.03	0.00	4.77	0.00	.070	0.030	0.080	0.000	1771.10	9929.54
0.000485	140.	220.	220.	2	8	0	0.00	140.92	10070.46

FLOW DISTRIBUTION FOR SECNO= 6.76 CWSEL= 1782.26

STA= 9930. 10072.
PER Q= 100.0
AREA= 1342.6
VEL= 4.8

*SECNO 6.920

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1790.90

CL = 11370

6.92	7.88	1785.58	1785.58	0.00	1788.56	2.97	1.04	1.31	1791.00
6400.	0.	6400.	0.	0.	462.	0.	32.	4.	1790.90
0.05	0.00	13.84	0.00	0.070	0.030	0.080	0.000	1777.70	11328.66
0.006028	580.	830.	840.	20	19	0	0.00	79.20	11407.85

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.92 CWSEL= 1785.58

STA= 11329. 11410.
PER Q= 100.0
AREA= 462.5
VEL= 13.8

CCHV= 0.100 CEHV= 0.300
*SECNO 7.140

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11200.0 12370.0 TYPE= 1 TARGET= 1170.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1791.00 ELREA= 1798.80

CL = 12260

7.14	13.21	1792.41	0.00	0.00	1793.02	0.62	4.23	0.24	1791.00
6400.	666.	5734.	0.	746.	862.	0.	55.	13.	1798.80
0.10	0.89	6.65	3.00	0.070	0.030	0.080	0.000	1779.20	11245.31
0.002056	590.	1200.	1250.	3	0	0	0.00	1070.17	12315.48

FLOW DISTRIBUTION FOR SECNO= 7.14 CWSEL= 1792.41

STA= 11245. 12030. 12114. 12150. 12369.
PER Q= 6.4 3.1 1.0 89.6
AREA= 534.0 161.3 50.9 862.3
VEL= 0.9 1.2 1.2 6.7

1490 NH CARD USED
*SECNO 7.340

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1798.00 ELREA= 1796.50

CL = 12370

7.34	8.57	1794.07	0.00	0.00	1795.58	1.51	2.29	0.27	1798.00
6400.	.	6400.	0.	0.	649.	0.	78.	23.	1796.50
0.13	0.00	9.87	0.00	0.070	0.025	0.160	0.000	1785.50	12328.66
0.002419	600.	1050.	1300.	3	0	0	0.00	1071.54	12430.20

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 7.34 CWSEL= 1794.07

STA= 12329. 12437.
PER Q= 100.
AREA= 648.6
VEL= 9.9

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 7.600

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	4.74	1798.54	0.00	0.00	1800.52	1.98	4.71	0.23	1803.90
6400.	0.	6400.	0.	0.	567.	0.	97.	26.	1803.80
0.16	0.00	11.28	0.00	0.070	0.025	0.160	0.000	1793.80	11426.45
0.005355	1200.	1360.	1350.	3	0	0	0.00	134.25	11560.70

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1798.54

STA= 11426. 11577.
PER Q= 100.
AREA= 567.2
VEL= 11.3

1490 NH CARD USED
*SECNO 7.601

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 11280. 11790. TYPE= 1 TARGET= 510.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.60	4.98	1798.78	1798.78	0.00	1800.98	2.21	0.03	0.12	1803.90
6400.	0.	6400.	0.	0.	537.	0.	97.	26.	1803.80
0.16	0.00	11.92	0.00	0.070	0.025	0.160	0.000	1793.80	11425.22
0.008288	5.	5.	5.	20	12	0	0.00	122.71	11561.93

FLOW DISTRIBUTION FOR SECNO= 7.60 CWSEL= 1798.78

STA= 11425. 11577.
PER Q= 100.
AREA= 536.8
VEL= 11.9

1490 NH CARD USED
*SECNO 7.610

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1803.80 MAX ELLC= 1803.90

3470 ENCROACHMENT STATIONS= 11280. 11790. TYPE= 1 TARGET= 510.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	6.42	1800.22	0.00	0.00	1801.63	1.42	0.41	0.24	1803.90	
6400.	0.	6400.	0.	0.	676.	0.	98.	26.	1803.80	
0.17	0.00	9.55	0.00	0.070	0.025	0.160	0.000	1793.80	11420.67	
0.004394	70.	70.	70.	5	0	0	0.00	124.69	11566.27	

FLOW DISTRIBUTION FOR SECNO= 7.61 CHSEL= 1800.22

STA= 11421. 11577.
PER Q= 100.0
AREA= 669.8
VEL= 9.6

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	ICPHIC	EADST

1490 NH CARD USED
*SECNO 7.611

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 11280.0 11790.0 TYPE= 1 TARGET= 510.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1803.90 ELREA= 1803.80

7.61	7.19	1801.09	0.00	0.00	1801.84	0.75	0.01	0.20	1803.90
6400.	0.	6400.	0.	0.	920.	0.	98.	26.	1803.80
0.17	0.00	6.95	0.00	0.070	0.025	0.160	0.000	1793.50	11418.71
0.001243	5.	5.	5.	3	0	0	0.00	150.07	11568.79

FLOW DISTRIBUTION FOR SECNO= 7.61 CHSEL= 1801.09

STA= 11419. 11577.
PER Q= 100.0
AREA= 920.4
VEL= 7.3

1490 NH CARD USED
*SECNO 7.680

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1808.30 ELREA= 1809.50

CL = 11800

7.68	6.61	1801.11	0.00	0.00	1802.96	1.85	0.57	0.55	1808.30
6400.	0.	6400.	0.	0.	586.	0.	103.	27.	1809.50
0.17	0.00	10.92	0.00	0.070	0.025	0.160	0.000	1794.50	11738.70
0.003886	290.	230.	220.	3	0	0	0.00	114.08	11852.78

FLOW DISTRIBUTION FOR SECNO= 7.68 CHSEL= 1801.11

STA= 11739. 11930.
PER Q= 100.0
AREA= 586.0
VEL= 10.9

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHL= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 7.970
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 12418.0 12669.0 TYPE= 1 TARGET= 251.000
CL = 12529

7.97	7.23	1813.23	1813.23	0.00	1815.52	2.29	6.84	0.13	1812.90
6400.	5.	6375.	21.	6.	524.	9.	124.	32.	1812.40
0.21	.64	12.16	2.27	0.060	0.025	0.025	0.000	1806.00	12437.47
0.004672	1750.	1613.	1340.	20	8	0	0.00	147.35	12584.82

FLOW DISTRIBUTION FOR SECNO= 7.97 CWSEL= 1813.23

STA=	12437.	12454.	12563.	12585.
PER Q=	0.1	99.6	0.3	
AREA=	5.6	524.2	9.1	
VEL=	0.3	12.2	2.3	

1490 NH CARD USED
*SECNO 8.190

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1823.90 ELREA= 1823.90

START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	8.54	1819.14	0.00	0.00	1822.20	3.06	6.45	0.23	1823.90
6400.		6401.	0.	0.	456.	0.	137.	35.	1823.90
0.23	0.03	14.04	0.00	0.060	0.030	0.025	0.000	1810.60	8945.59
0.006993	1110.	1140.	930.	2	0	0	0.00	66.47	9012.06

FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1819.14

STA=	8946.	9014.
PER Q=	100.0	
AREA=	455.9	
VEL=	14.0	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.270

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

LAKE MEAD BLVD BRIDGE
CAREY AVE Q25 BREAKOUT RETURNS TO CHANNEL

8.27	8.24	1821.94	0.00	0.00	1823.62	1.68	1.28	0.14	1824.00
6261.	0.	6260.	0.	0.	602.	0.	141.	35.	1822.20
0.24	0.00	10.40	0.00	0.060	0.025	0.025	0.000	1813.70	9008.47
0.002448	350.	330.	300.	3	0	0	0.00	85.15	9093.62

0
FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1821.94

STA= 9008. 9094.
PER Q= 100.0
AREA= 601.8
VEL= 10.4

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

Q25 BREAKOUT IN ROB IS SUBTRACTED FROM CHANNEL Q

8.27	8.13	1821.82	0.00	0.00	1823.77	1.95	0.02	0.13	1824.00
5380.	0.	5380.	0.	0.	480.	0.	141.	36.	1823.20
0.24	0.00	11.20	0.00	0.060	0.015	0.025	0.000	1813.70	9017.00
0.004863	5.	5.	5.	2	0	0	-9.39	75.00	9095.00

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1821.83

STA= 9017. 9095.
PER Q= 100.0
AREA= 480.4
VEL= 11.2

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

3470 ENCROACHMENT STATIONS= 8940.0 9140.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1824.10 ELREA= 1824.00

8.31	8.34	1822.34	1821.75	0.00	1825.90	3.56	1.64	0.48	1824.10
5380.	0.	5380.	0.	0.	355.	0.	143.	36.	1824.00
0.25	0.00	15.15	0.00	0.055	0.015	0.140	0.000	1814.00	9040.00
0.010926	235.	235.	235.	6	9	0	-25.80	76.00	9116.00

0
FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1822.34

STA= 9040. 9116.
PER Q= 100.0
AREA= 355.2
VEL= 15.1

CCHV= 0.300 CEHV= 0.500
*SECNO 8.311
3280 CROSS SECTION 8.31 EXTENDED 0.67 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8900.0 9270.0 TYPE= 1 TARGET= 370.000

8.31	12.67	1826.67	0.00	0.00	1826.90	0.23	0.00	1.00	1824.10	
5520.	69.	5344.	108.	146.	1363.	371.	143.	36.	1824.00	
0.25	0.47	3.92	0.29	1.055	0.025	0.140	0.000	1814.00	8900.00	
0.000190	5.	5.	5.	3	0	0	0.00	370.00	9270.00	

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SECNO	DEPTH	CWSEL	CRIWS	*SELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1826.67

STA= 8900. 8940. 9014. 9140. 9148. 9270.
PER Q= 0.1 1.1 96.8 0.1 1.8
AREA= 26.6 119.6 1363.4 21.3 349.7
VEL= 0.3 1.5 3.9 0.3 1.3

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 8.610

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1832.80 ELREA= 1832.30

8.61	7.71	1826.61	0.00	0.00	1828.00	1.39	0.75	0.35	1832.80
5520.	0.	5520.	0.	0.	584.	0.	187.	44.	1832.30
0.29	0.00	9.46	0.00	0.058	0.025	0.160	0.000	1818.90	7960.22
0.002806	1570.	1560.	1370.	4	0	0	0.00	110.03	8070.25

0
FLOW DISTRIBUTION FOR SECNO= 8.61 CWSEL= 1826.61

STA= 7960. 8094.
PER Q= 100.0
AREA= 583.7
VEL= 9.5

1490 NH CARD USED
*SECNO 8.850

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.60 ELREA= 1837.80

8.85	6.02	1830.42	0.00	0.00	1832.20	1.78	4.08	0.12	1837.60
5520.	0.	5520.	0.	0.	516.	0.	203.	47.	1837.80
0.32	0.00	10.70	0.00	0.058	0.025	0.160	0.000	1824.40	7027.72
0.003849	1370.	1250.	1200.	3	0	0	0.00	101.42	7129.14

0

FLOW DISTRIBUTION FOR SECNO= 8.85 CWSEL= 1830.42

STA= 7028. 7188.
PER Q= 100.
AREA= 515.5
VEL= 10.7

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

8.90	6.65	1831.85	0.00	0.00	1833.07	1.21	0.70	0.17	1837.80
5450.	0.	5450.	0.	0.	617.	0.	206.	48.	1838.00
0.33	0.00	8.84	0.00	0.058	0.025	0.160	0.000	1825.20	9930.17
0.002449	170.	230.	360.	3	0	0	0.00	116.76	10046.94

8
FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1831.85

STA= 9930. 10070.
PER Q= 100.0
AREA= 616.9
VEL= 8.8

1490 NH CARD USED
*SECNO 8.901

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.105 EGC= 1836.122 WSEL= 1832.186

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.105 EGC= 1836.110 WSEL= 1832.303

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.40

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
      8.90       7.20   1832.40   1832.40      0.00   1836.11      3.71      0.02      1.25   1837.80
      5450.          .      5450.         0.         0.      353.         0.       206.        48.    1838.00
         0.33       0.00      15.45      0.00      0.050      0.015      0.131      0.000   1825.20   9950.00
   0.009185          5.         5.         5.        20         21          0       0.00     49.00  10019.00

 FLOW DISTRIBUTION FOR SECNO=      8.90          CWSEL=    1832.40

 STA=    9950.   10019.
   PER Q=     100.0
    AREA=     352.8
     VEL=      15.4

 CCHV=   0.100 CEHV=   0.300
 1490 NH CARD USED
 *SECNO 8.910

 4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF  1832.800 EGLC=  1838.361 EGC=  1840.519 WSEL=  1835.807

 4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF  1832.800 EGLC=  1838.361 EGC=  1838.365 WSEL=  1832.791

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1837.8  MAX ELLC= 1832.80

 3665 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 347  ENCROACHMENT STATIONS=    9890.    10430.0   TYPE=     1   TARGET=     540.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1838.10 ELREA=     1838.10

      8.91       7.20   1832.80   1832.80      0.00   1838.36      5.56      0.82      0.56   1837.80
      5450.          .      5451.         0.         1.      286.         0.       206.        48.    1838.00
         0.33       0.00      18.92      0.00      0.022      0.015      0.074      0.000   1825.60   9950.00
   0.015562          70.        70.        70.        20         20          0       0.00     40.00  10018.00
C
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TEA     LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CCRAR      TOPWID       ENDST

 FLOW DISTRIBUTION FOR SECNO=      8.91          CWSEL=    1832.80

 STA=    9950.   10018.
   PER Q=     100.0
    AREA=     288.0
     VEL=      18.9

 CCHV=   0.300 CEHV=   0.500
 1490 NH CARD USED
 *SECNO 8.911

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS=    9910.0    10900.0   TYPE=     1   TARGET=     950.000
      8.91      14.21   1839.81      0.00      0.00   1839.98      0.17      0.00      1.62   1828.00
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     5520.      535.     4116.      869.      242.     1107.     1544.      206.       48.    1828.00
      0.33      2.21      3.72      3.56      .025     0.025     0.051      .000  1825.60    9910.00
 0.000119        5.        5.        5.         4         0         0      0.00   990.00   10900.00

 FLOW DISTRIBUTION FOR SECNO=       8.91          CWSEL=    1839.81

 STA=    9910.     9945.    10025.    10070.    10270.    10430.    10800.    10900.
   PER Q=    9.7      74.6      12.7       1.0       0.4       1.0       0.6
    AREA=  241.9    1106.9     356.5     362.3     201.8     466.7     206.2
     VEL=    2.2       3.7       2.3       0.2       0.1       0.1       0.2

 1490 NH CARD USED
 *SECNO 9.060

 3470 ENCROACHMENT STATIONS=     7186.0     7361.0  TYPE=      1  TARGET=     175.000
      9.06     11.77   1839.87      0.00      0.00   1840.23      0.36      0.15      0.10   1840.50
      3875.         .      3875.        0.        0.      805.        0.      241.        58.   1841.10
       0.38      0.00      4.81      0.00     0.160     0.025     0.160      .000  1828.10   7239.92
 0.000460       650.      820.      830.         2         0         0      0.00   106.20   7346.12

 FLOW DISTRIBUTION FOR SECNO=       9.06          CWSEL=    1835.87

 STA=    7240.     7349.
   PER Q=   100.0
    AREA=   805.2
     VEL=     4.3

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLCSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 CCHV=    0.10  CEHV=    0.300
 1490 NH CARD USED
 *SECNO 9.300

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=        0.0     7900.0  TYPE=      1  TARGET=     7899.999

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1847.10 ELREA=     1844.70

      9.30      7.07   1841.47   1841.47      0.00   1842.79      1.32      1.49      0.25   1847.10
      3875.         .      3875.        0.        0.      420.        0.      258.        62.   1844.70
       0.42      0.00      9.23      0.00     0.043     0.026     0.053      .000  1834.40   7224.12
 0.007790      1040.     1250.     1070.        20        15         0      0.00   167.67   7412.27

 FLOW DISTRIBUTION FOR SECNO=       9.30          CWSEL=    1841.47

 STA=    7224.     7447.
   PER Q=   100.0
    AREA=   419.3
     VEL=     9.2

 CCHV=    0.300 CEHV=    0.500
 1490 NH CARD USED
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*SECNO 9.410

3470 ENCROACHMENT STATIONS=     4900.      6120.0   TYPE=      1   TARGET=     1220.000
        9.41       4.39   1844.89        0.00       0.00   1846.51      1.63        3.57        0.15   1847.90
     3875.          0.      3875.          0.         0.       378.       0.         264.          64.    1846.50
        0.43       0.0        11.24       0.00       0.043     0.029     0.053      .000    1840.50    5377.73
 0.005152        840.        570.        330.          3                   0          0.00    100.30    5478.03

FLOW DISTRIBUTION FOR SECNO=       9.41          CWSEL=    1844.89

STA=     5379.     5496.
  PER Q=     100.0
    AREA=    378.3
     VEL=     10.2

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        GLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       T&A    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

1490 NH CARD USED
*SECNO 9.411

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF   1850.000 EGLC=   1851.222 EGC=   1851.814 WSEL=   1851.001

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  13 MIN ELTRD= 1848.90 MAX ELLC= 1850.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     4900.0     6120.0   TYPE=      1   TARGET=     1220.000
        9.41       5.42   1845.92   1845.92        0.00   1848.64      2.73        0.12        0.55   1847.80
     3875.          0.      3875.          0.         0.       292.       0.         264.          64.    1847.80
        0.43       0.00       13.25       0.00       0.037     0.015     0.037     0.000    1840.50    5391.00
 0.004746          5.          5.          5.           20        20                 0          0.00     54.00    5459.00

FLOW DISTRIBUTION FOR SECNO=       9.41          CWSEL=    1845.92

STA=     5391.     5459.
  PER W=     100.0
    AREA=    292.5
     VEL=     13.2

CCHV=    0.100  CEHV=    0.300
1490 NH CARD USED
*SECNO 9.430

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  14 MIN ELTRD= 1850.00 MAX ELLC= 1852.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&IC	ENDST

3470 ENCROACHMENT STATIONS= 5000.0 5100.0 TYPE= 1 TARGET= 100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1851.00 ELREA= 1851.00

9.43	8.96	1850.76	1350.76	0.00	1852.78	2.02	0.60	0.07	1849.20
3875.	0.	3875.	0.	0.	340.	0.	264.	64.	1849.20
0.44	0.00	11.41	0.00	0.015	0.015	0.015	0.000	1841.80	5020.00
0.006411	110.	110.	110.	2	6	0	-106.77	67.00	5087.00

FLOW DISTRIBUTION FOR SECNO= 9.43 C&SEL= 1850.76

STA=	5020.	5087.
PER Q=	100.0	
AREA=	339.7	
VEL=	11.4	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.431

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 4470.0 5730.0 TYPE= 1 TARGET= 1260.000

9.43	11.54	1853.34	0.00	0.00	1853.38	0.04	0.00	0.59	1850.00
3875.	851.	1877.	1147.	1768.	867.	1762.	265.	64.	1850.00
0.44	0.48	2.17	0.65	0.060	0.025	0.040	0.000	1841.80	4470.00
0.000076	5.	5.	5.	4	0	0	0.00	1260.00	5730.00

FLOW DISTRIBUTION FOR SECNO= 9.43 C&SEL= 1853.34

STA=	4470.	5000.	5100.	5120.	5400.	5500.	5730.
PER Q=	22.0	48.4	1.0	9.7	4.8	14.2	
AREA=	1768.0	866.6	56.7	654.0	283.6	767.2	
VEL=	0.5	2.2	0.7	0.6	0.7	0.7	

1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 7280.0 8300.0 TYPE= 1 TARGET= 1020.000

1

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCP&IC	ENDST

9.47	11.15	1853.35	0.00	0.00	1853.40	0.05	0.02	0.00	1852.00
3875.	407.	2585.	882.	828.	1238.	1480.	282.	69.	1850.70
0.47	0.49	2.09	0.60	0.057	0.027	0.060	0.000	1842.30	7280.00
0.000120	135.	135.	135.	2	0	0	0.00	1020.00	8300.00

FLOW DISTRIBUTION FOR SECNO= 9.47 C&SEL= 1853.35

STA=	7280.	7387.	7556.	7655.	7845.	7955.	8065.	8129.	8190.	8253.	8300.

PER Q=	4.1	3.7	2.7	66.7	4.6	4.8	3.0	3.7	3.7	2.9
AREA=	273.	331.9	222.9	1237.7	32[illegible].1	329.7	201.4	222.5	227.0	179.2
VEL=	0.5	0.4	0.5	2.1	0.6	0.6	0.6	0.6	0.6	0.6


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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - LAMB BL

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6.710	0.00	0.00	0.00	1765.30	6400.00	1780.90	0.00	1781.88	20.12	7.93	807.13	1426.75
	6.750	220.00	0.00	0.00	1770.90	6400.00	1781.89	0.00	1782.26	5.11	4.85	1315.38	2831.89
	6.751	5.00	1783.00	1783.00	1770.90	6400.00	1781.85	0.00	1782.31	11.02	5.42	1181.88	1927.68
	6.760	100.00	1783.00	1783.20	1771.10	6400.00	1781.96	0.00	1782.42	11.33	5.47	1165.97	1901.19
	6.761	220.00	0.00	0.00	1771.10	6400.00	1782.26	0.00	1782.61	4.85	4.77	1342.64	2907.24
*	6.920	830.00	0.00	0.00	1777.70	6400.00	1785.58	1785.58	1788.56	80.28	13.84	462.46	714.34
	7.140	1200.00	0.00	0.00	1779.20	6400.00	1792.41	0.00	1793.03	20.56	6.65	1608.47	1411.31
	7.340	1050.00	0.00	0.00	1785.50	6400.00	1794.07	0.00	1795.58	24.19	9.87	648.57	1301.37
	7.600	1360.00	0.00	0.00	1793.80	6400.00	1798.54	0.00	1800.52	53.55	11.28	567.18	874.66
•	7.601	5.00	1803.80	1803.90	1793.80	6400.00	1798.78	1798.78	1800.98	82.88	11.92	536.79	702.98
	7.610	70.00	1803.80	1803.90	1793.80	6400.00	1800.22	0.00	1801.63	43.94	9.55	665.83	965.55
	7.611	5.00	0.00	0.00	1793.90	6400.00	1801.09	0.00	1801.84	12.43	6.95	920.44	1814.92
	7.680	280.00	0.00	0.00	1794.50	6400.00	1801.11	0.00	1802.96	38.86	10.92	585.99	1026.63
*	7.970	1610.00	0.00	0.00	1806.00	6400.00	1813.23	1813.23	1815.52	46.72	12.16	538.93	936.35
	8.190	1140.00	0.00	0.00	1810.60	6400.00	1819.14	0.00	1822.20	69.93	14.04	455.85	765.38
	8.270	330.00	0.00	0.00	1813.70	6260.00	1821.94	0.00	1823.62	24.48	10.40	601.80	1265.17
	8.271	5.00	1823.20	1821.70	1813.70	5380.00	1821.83	0.00	1823.77	48.63	11.20	480.40	771.52

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	8.310	235.00	1823.20	1822.00	1814.00	5380.00	1822.34	1821.75	1825.90	109.26	15.15	355.20	514.74

	8.311	5.00	0.00	0.00	1814.00	5520.00	1826.67	0.00	1826.90	1.90	3.92	1880.66	4004.66
	8.610	1560.00	0.00	0.00	1818.90	5520.00	1826.61	0.00	1828.00	28.08	9.46	583.72	1041.74
	8.850	1250.00	0.00	0.00	1824.40	5520.00	1830.42	0.00	1832.20	38.49	10.70	515.65	889.73
	8.900	230.00	0.00	0.00	1825.20	5450.00	1831.85	0.00	1833.07	24.49	8.84	616.86	1101.36
*	8.901	5.00	1837.80	1832.40	1825.20	5450.00	1832.40	1832.40	1836.11	91.85	15.45	352.80	568.67
*	8.910	70.00	1837.80	1832.80	1825.60	5450.00	1832.80	1832.80	1838.36	155.62	18.92	288.00	436.85
	8.911	5.00	0.00	0.00	1825.60	5520.00	1839.81	0.00	1839.98	1.19	3.72	2892.38	5065.66
	9.060	620.00	0.00	0.00	1828.10	3875.00	1839.87	0.00	1840.23	4.60	4.81	805.18	1807.12
*	9.300	1250.00	0.00	0.00	1834.40	3875.00	1841.47	1841.47	1842.79	77.50	9.23	419.77	439.00
	9.410	570.00	0.00	0.00	1840.50	3875.00	1844.89	0.00	1846.51	51.52	10.24	378.28	539.86
*	9.411	5.00	1848.90	1850.00	1840.50	3875.00	1845.92	1845.92	1848.64	47.46	13.25	292.50	562.45
*	9.430	110.00	1850.00	1852.00	1841.80	3875.00	1850.76	1850.76	1852.78	64.11	11.41	339.69	483.95
	9.431	5.00	0.00	0.00	1841.80	3875.00	1853.34	0.00	1853.38	0.76	2.17	4396.12	4430.57
	9.470	185.00	0.00	0.00	1842.30	3875.00	1853.35	0.00	1853.40	1.20	2.09	3545.53	3531.96

LAS VEGAS WASH - LAMB BL
SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6.710	6400.00	1780.90	0.00	0.00	0.00	88.14	0.00
	6.750	6400.00	1781.89	0.00	0.99	0.00	147.38	220.00
	6.751	6400.00	1781.85	0.00	-0.04	0.00	128.24	5.00
	6.760	6400.00	1781.96	0.00	0.11	0.00	127.93	100.00
	6.761	6400.00	1782.26	0.00	0.30	0.00	147.92	220.00
*	6.920	6400.00	1785.68	0.00	3.32	0.00	79.20	830.00
	7.140	6400.00	1792.41	0.00	6.83	0.00	1070.17	1200.00
	7.340	6400.00	1794.07	0.00	1.66	0.00	101.54	1050.00
	7.600	6400.00	1798.54	0.00	4.47	0.00	134.25	1360.00
*	7.601	6400.00	1798.78	0.00	0.24	0.00	122.71	5.00
	7.610	6400.00	1800.22	0.00	1.44	0.00	124.60	70.00
	7.611	6400.00	1801.09	0.00	0.88	0.00	150.07	5.00
	7.680	6400.00	1801.11	0.00	0.02	0.00	114.08	280.00
*	7.970	6400.00	1813.23	0.00	12.12	0.00	147.35	1610.00

	8.190	6400.00	1819.14	0.00	5.91	0.00	66.47	1140.00
	8.270	6260.00	1821.94	0.00	2.80	0.00	85.15	330.00
	8.271	5380.00	1821.33	0.00	-0.12	0.00	75.00	5.00
	8.310	5380.00	1822.34	0.00	0.51	0.00	76.00	235.00
	8.311	5520.00	1826.67	0.00	4.33	0.00	370.00	5.00
	8.610	5520.00	1826.61	0.00	-0.06	0.00	110.03	1560.00
	8.850	5520.00	1830.42	0.00	3.81	0.00	101.42	1250.00
	8.900	5450.00	1831.85	0.00	1.44	0.00	116.76	230.00
*	8.901	5450.00	1832.40	0.00	0.55	0.00	49.00	5.00
*	8.910	5450.00	1832.80	0.00	0.40	0.00	40.00	70.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLOC
	8.911	5520.00	1839.81	0.00	7.01	0.00	990.00	5.00
	9.060	3875.00	1839.87	0.00	0.06	0.00	106.20	820.00
*	9.300	3875.00	1841.47	0.00	1.60	0.00	167.67	1250.00
	9.410	3875.00	1844.39	0.00	3.42	0.00	100.30	570.00
*	9.411	3875.00	1845.32	0.00	1.03	0.00	54.00	5.00
*	9.430	3875.00	1850.76	0.00	4.84	0.00	67.00	110.00
	9.431	3875.00	1853.34	0.00	2.58	0.00	1260.00	5.00
	9.470	3875.00	1853.35	0.00	0.01	0.00	1020.00	185.00

1
28-APR-88 17:55:10 PAGE 33

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 6.920 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.920 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.920 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.601 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.601 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.601 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 7.970 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.970 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.970 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.901 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.901 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.901 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.910 PROFILE= 1 CRITICAL DEPTH ASSUMED

```
 CAUTION  SECNO=     8.910   PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.910   PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.300   PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.300   PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.300   PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.411   PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.411   PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.411   PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.430   PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.430   PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.430   PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

1
  28-APR-86     17:56:13                                                    PAGE    1


 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************



EOF..
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C
C      9
C    6.92  Model of Q50 and Q100 breakouts in left overbank between Lamb Blvd
C    6.92  and Lake Mead Blvd.  Use truncated xsecs from full HEC-2 model.
C    6.92  Add 10.0 to xsec numbers from full model.
C    6.92  Start at x-6.92 with full Q100 flow, and floodplain in LOB
C    6.92  encroached to reasonable expansion limits.  Q50 overbank flow does
C    6.92  not return to channel here; keep separate.  Use ET cards for
C    6.92  x-6.92 to x-17.97 to set approx 1:1 expansion limits.
C    6.92  Flows come from R4_MID_SF.out; split flow run for main channel.
C
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3       LVW LEFT OVERBANK BREAKOUT - LM TO LVB                50-YEAR
J1             3                                                      1788.0
J2       1            -1
QT       4          2870    23540
ET                   8.1       8.1       8.1      6200     11320     6200     11437
NC    .070      .070      .070       0.1       0.3
X1   6.92        36     11321     11410       580       840       830
X4       1   1790.0       900
GR1793.0       680      1788      1000      1788      2000      1787      3500      1788      4850
GR  1785      6450      1785      9200      1784      9550      1784     10200      1784     10200
GR1787.3     11000    1787.7     11145    1786.5     11169    1786.6     11200    1787.0     11289
GR1791.0     11321    1781.8     11334    1777.7     11357    1777.7     11366    1779.0     11378
GR1781.8     11406    1790.9     11410    1786.9     11426    1790.0     11437    1789.9     11504
GR1788.3     11551    1788.1     11559    1788.1     11578    1788.1     11605    1788.1     11612
GR1788.6     11622      1786     12100     1786.     12300      1788     13600      1788     16450
GR  1792     17230
QT       4          2870    11930
ET                   8.1       8.1                                      6200
X1 17.14         14     7100      7200       580       580       580
GR1800.0        450      1791      1050      1790      1500    1789.5      2300      1788      3700
GR  1789       4600      1789      6200      1788      7100      1788      7200      1788     10450
GR1792.5      11200    1791.0     12000    1791.0     12114    1791.0     12150
ET                   8.1       8.1                                      6850
X1 17.34         16     8600      8700       600       600       600
X4       2   1792.0      7300    1792.0      9600
GR1800.0        150    1795.0       900    1792.0      3500    1792.0      5000    1792.2      6850
GR1791.0       8600    1791.0      8700    1791.0      9600    1792.0     10000    1796.0     10980
GR1796.0      12000    1796.3     12048    1795.8     12125    1796.6     12229    1795.7     12268
GR1798.9      12321
ET                   8.1       8.1                                      6800
X1 17.60         13     8000      8290      1200      1200      1200
GR1799.5       4300    1799.0      6250    1800.0      6800    1796.0      8000    1796.0      8290
GR1797.0       8450    1797.0      8800    1800.0      9550    1800.0      9930    1804.0     10730
GR1806.0      11200    1804.5     11280    1803.9     11410
ET                   8.1       8.1                                      7300
X1 17.68         15     8550      8700       370       370       370
GR1802.0       4450    1801.0      5800    1801.5      7300    1801.0      7700    1800.0      8070
GR1800.0       8350    1797.5      8550    1797.5      8700    1800.0      9060    1799.0      9250
GR1799.0       9400    1800.0      9610    1804.0     10500    1804.4     11000    1808.3     11640
QT       4          2840    11470
ET                   8.1       8.1                                      8500
X1 17.97         12     9450      9500      1750      1750      1750
X4       1   1810.0      1000
GR1812.0       4600    1812.0      7500    1812.0      8500    1810.0      9450    1810.0      9500
GR1815.2      12000    1816.6     12227    1815.6     12313    1813.6     12367    1815.1     12418
GR1812.8      12442    1812.9     12454
X1 18.19         14     7030      7100      1110      1110      1110
X4       3   1818        4920      1819      5810    1820.0      7800
GR1820.0       3800    1816.0      7030    1816.0      7100    1820.0      8000    1820.0      8000
GR1819.2       8000    1819.6      8169    1819.4      8408    1820.1      8794    1820.5      8849
GR1821.5       8975    1820.3      8921    1822.6      8927    1823.9      8941
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QT       4          2570       5720
X1   18.27          6770       6800        350        350        350
GR1822.0 4430    1822.0       5200    1821.0       5850    1819.5       6770    1819.5       6800
GR1819.5 7400    1824.        9000.     1824.      9006.
NC    .080        .080        .080
X1   18.31          6770       6800.       250        250        250
GR1824.0 4000    1823.8       5850    1823.5       6050    1821.0       6770    1821.0       6800
GR1822.0 7800    1826.        8900.     1826.      8940    1824.1       9014.
NC    .040 0.16   .080
QT       4          2280       6410
X1   18.61          6          2020.     3700.      1500.      1400.      1450.
X4       1 1830.5               2900
GR1832.0         0 1830.0        250    1829.0       2020    1829.0       3700    1829.0       5380
GR1831.0 5970
X1   18.85          6          1700.     2550.      1500.      1500.      1500.
X4       1 1836.0               4180
GR1840.0         0 1837.0        250    1837.0       1700    1837.0       2550    1840.0       3730
GR1837.0 4900
QT       4          2280       4850
X1   18.91          6          3050.     4500.       260.       200.       250.
X4       2 1840.0               2800    1836.5       6980
GR1843.0 2650    1837.5       3050    1837.5       4500    1837.5       5350    1841.0       6530
GR1839.0 7700
X1   19.06          7          1400.     2000.       520.       520.       520.
GR1845.0  500    1840.0       1400    1840.0       2000    1841.0       2800    1844.0       4450
GR1841.0 4800    1842.5       4850
X1    9.30          6          1880      3080        700        850        800
X4       1 1850.0               1150
GR1852.0 1000    1845.0       1880    1844.0       3080    1845.0       4000    1846.0       4700
GR1848.0 4850
VH       3.       .080        2650       .040       4000       .060       4900
X1    9.41         10          4250.     4700.       600.       600.       600.
X4       3 1850.0               -300    1850.0       1800    1848.5       3410
GR1853.0         -800    1849.0       2200    1849.0       2650    1849.9       2760    1849.0       2960
GR1848.5 4000    1848.0       4150    1847.9       4250    1847.9       4700    1848.5       4900
QT       4                 13000      24000
ET                           6.1        6.1                 2700       6120
VH       8.       .080        2650       .040       4000       .060       4700       .037       5370       .015
VH    5496        .037        6120       .055       7650       .080       8900
X1   9.411          58         5391.     5459.        5.         5.          5
X4       2 1850.5               2700    1848.5       3410
BT      -19         2760    1849.9       1849.9     3410    1849.0       1848.5     4000    1848.9       1848.5
BT              4250    1849.9       1847.9     5065    1849.9       1847.9     5184    1850.7       1847.9
BT              5254    1851.3       1847.9     5391    1851.4       1847.8     5459    1851.4       1847.8
BT              5559    1851.0       1847.5     5676    1851.0       1848.9     5735    1851.0       1846.1
BT              5762    1851.0       1848.3     5950    1851.1       1848.2     6200    1850.1       1848.3
BT              6600    1850.1       1849.0     7400    1850.1       1849.0     7650    1850.1       1850.0
BT              8000    1850.0       1850.0
GR1850.0 1900    1849.0       2200    1849.0       2650    1849.9       2760    1849.0       2960
GR1848.5 4000    1848.0       4150    1847.9       4250    1847.9       4700    1848.5       4900
GR1847.9 005000  1847.9     005065    1847.9     005118    1847.8     005184    1847.9     005242
GR1847.9 005264  1847.9     005306    1848.0     005352    1847.9     005370    1847.8     005391
GR1840.5 5391    1840.5       5401    1847.8       5401    1847.8       5404    1840.5       5404
GR1840.5 5415    1847.8       5415    1847.8       5418    1840.5       5418    1840.5       5429
GR1847.8 5429    1847.8       5434    1840.5       5434    1840.5       5445    1847.8       5445
GR1847.8 5448    1840.5       5448    1840.5       5459    1847.8       5459    1847.4       5535
GR1847.5 005559  1847.2     005579    1847.4     005601    1847.5     005631    1848.9     005676
GR1846.1 005735  1848.3     005762    1846.1     005790    1847.2     005815    1848.2     005550
GR1849.5 6120    1848.3       6200    1849.0       6600    1849.0       7400    1850.0       7650
GR1850.0 8000    1852.0       8280    1854.0       8900
EJ
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --    EGF
T3       LVW LEFT OVERBANK BREAKOUT - LM TO LVB                100-YEAR
J1                4                                                    1791.0
J2    15                -1
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DOF..

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CCCC
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X1   8.75        14      3185      3405      1380      1250      1325
GR2081.9      2030   2079.7      2097   2078.3      2471   2075.4      2993   2075.5      3185
GR2072.2      3196   2072.2      3223   2077.2      3237   2077.2      3267   2073.1      3277
GR2072.5      3317   2075.6      3328   2079.0      3405   2093.0      3950
EJ
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JMU_NONDAM          Flow Analysis - February 1988
J1              3                                                  2036.75
J2      2               -1
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JMU_NONDAM          Flow Analysis - February 1988
J1              4                                                  2037.83
J2      3               -1
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JMU_NONDAM          Flow Analysis - February 1988
J1              5                                                  2039.74
J2      4               -1
T1        Las Vegas Wash Overflow Study - CCRFCD
T2        James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3        JMU_NONDAM          Flow Analysis - February 1988
J1              6                                                  2039.74
J2     15               -1


ER
EOF..
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See 7.426 – 8.75

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CCCC
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NC    .05      .05      .045      .1       .3
X1   8.50       19      2815      3339     1230     1255     1245
GR2072.0      1275  2068.0      1840  2067.0      2430  2067.0      2430  2067.0      2430
GR2064.8      2815  2064.1      2930  2064.4      2961  2064.6      2994  2064.2      3006
GR2054.8      3058  2064.5      3050  2063.0      3139  2063.0      3159  2071.3      3339
GR2075.9      3457  2080.2      3519  2077.1      3567  2079.2      3582
NC    .045     .045      .040
X1   8.75       14      3185      3405     1380     1250     1325
GR2081.9      2000  2079.7      2097  2078.3      2471  2075.4      2993  2075.5      3185
GR2072.2      3196  2072.2      3223  2077.2      3237  2077.2      3267  2073.1      3277
GR2072.5      3317  2075.6      3328  2079.0      3405  2093.0      3950
EJ
T1          Las Vegas Wash Overflow Study - CCRFCD
T2          James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3          LVWDCJMU          50-YR Flood Analysis - July 1987
J1                3                                                    2036.75
J2        2               -1
T1          Las Vegas Wash Overflow Study - CCRFCD
T2          James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3          LVWDCJMU          100-YR Flood Analysis - July 1987
J1                4                                                    2037.83
J2        3               -1
T1          Las Vegas Wash Overflow Study - CCRFCD
T2          James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3          LVWDCJMU          500-YR Flood Analysis - July 1987
J1                5                                                    2039.74
J2       15               -1


ER
EOF..
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261

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  15-OCT-87 TIME   13:45:40          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
```


see 7.426 - 8.75

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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X        X     X            X     X
X      X  X        X                  X     X
XXXXXXXX  XXXX     X          XXXXX    XXXXX
X      X  X        X                  X
X      X  X        X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
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15-OCT-87 13:45:41


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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -   01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1       Las Vegas Wash Overflow Study - CCRFCD
T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3       LVWDCJMU          25-YR Flood Analysis - July 1987

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q          WSEL      FQ
        0.        2.        0.        0.  0.000000      0.00      0.0       0.  2034.470     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW        CHNIM     ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.350     0.050     0.045     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000  5300.000  9800.000 18000.000 54000.000     0.000     0.000     0.000     0.000     0.000
        FEET FILE LVWDCUPR
X1      7.426    22.000  9980.000 10020.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   2041.700  7830.000  2040.000  8150.000  8260.000  2037.800  8680.000  2036.000  8760.000
GR   2036.000  9200.000  2039.000  9450.000  2036.000  9710.000  2032.000  9950.000  2028.000  9980.000
GR   2026.300 10000.000  2028.000 10020.000  2032.000 10030.000  2036.000 10040.000  2036.000 10100.000
GR   2039.000 10300.000  2036.000 10450.000  2036.000 10600.000  2040.000 10800.000  2040.000 11130.000
GR   2040.300 11350.000  2040.000 11800.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.050     0.020     0.045     0.300     0.500     0.000     0.000     0.000     0.000     0.000
        EASTERN AVE. BRIDGE
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CENTERLINE STATION = 2305

X1	7.540	11.000	2284.000	2326.000	350.000	950.000	640.000	0.000	0.000	0.000
GR	2044.500	850.000	2040.000	900.000	2037.400	1950.000	2041.500	2284.000	2031.900	2284.000
GR	2031.900	2326.000	2041.500	2326.000	2043.700	2700.000	2045.000	2980.000	2046.500	3380.000
GR	2048.000	3650.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	14.000	2284.000	2041.500	2031.900	2287.000	2041.500	2036.200	2290.000	2041.500	2038.000
BT	2294.000	2041.500	2039.000	2298.000	2041.500	2038.000	2301.000	2041.500	2036.200	2304.000
BT	2041.500	2031.900	2306.000	2041.500	2031.900	2309.000	2041.500	2036.200	2312.000	2041.500
BT	2038.000	2316.000	2041.500	2039.000	2328.000	2041.500	2038.000	2323.000	2041.500	2036.200
BT	2326.000	2041.500	2031.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

NC	0.050	0.050	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 2314.5

X1	7.580	16.000	2290.000	2495.000	260.000	160.000	130.000	0.000	0.000	0.000
GR	2045.500	1215.000	2040.000	1330.000	2040.000	1470.000	2036.400	1670.000	2036.400	1671.000
GR	2039.000	2290.000	2039.000	2290.000	2031.900	2303.000	2031.900	2326.000	2037.500	2336.000
GR	2036.800	2433.000	2038.000	2461.000	2049.300	2495.000	2041.600	2672.000	2044.000	2880.000
GR	2048.000	3230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 2575

X1	7.720	19.000	2553.000	2585.000	745.000	650.000	735.000	0.000	0.000	0.000
GR	2052.000	1410.000	2048.000	1621.000	2048.000	1621.000	2048.000	1621.000	2048.000	1621.000
GR	2045.000	2000.000	2045.000	2000.000	2043.100	2473.000	2041.400	2529.000	2041.400	2553.000
GR	2035.300	2561.000	2035.100	2575.000	2043.300	2585.000	2043.300	2640.000	2039.500	2657.000
GR	2043.300	2663.000	2046.400	2735.000	2049.200	3053.000	2052.600	3189.000	0.000	0.000
NH	5.000	0.030	830.000	0.125	1800.000	0.050	2349.000	0.045	2419.000	0.050
NH	3709.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 2409

X1	8.180	23.000	2349.000	2419.000	1875.000	1855.000	2005.000	0.000	0.000	0.000
GR	2061.300	480.000	2060.000	680.000	2060.000	830.000	2060.000	930.000	2060.000	1030.000
GR	2060.000	1433.000	2056.000	1773.000	2056.000	1773.000	2056.000	1773.000	2056.000	1773.000
GR	2053.800	2000.000	2053.600	2098.000	2055.000	2194.000	2055.500	2332.000	2053.500	2349.000
GR	2051.400	2390.000	2050.300	2409.000	2055.500	2419.000	2056.900	2589.000	2058.000	2775.000
GR	2060.300	3400.000	2060.000	3500.000	2062.000	3600.000	0.000	0.000	0.000	0.000
NH	5.000	0.050	1350.000	0.125	2000.000	0.050	3358.000	0.045	3445.000	0.050
NH	3792.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 3402

X1	8.260	32.000	3358.000	3445.000	915.000	920.000	970.000	0.000	0.000	0.000
GR	2068.000	260.000	2064.000	380.000	2064.000	1350.000	2065.000	1650.000	2063.000	1820.000
GR	2064.000	2000.000	2063.700	2033.000	2063.200	2182.000	2062.500	2208.000	2062.900	2254.000
GR	2062.500	2283.000	2062.500	2309.000	2062.300	2345.000	2063.400	2533.000	2063.300	2590.000
GR	2058.900	2605.000	2061.700	2616.000	2060.500	2697.000	2059.400	2724.000	2060.000	2820.000
GR	2051.300	2837.000	2062.400	2962.000	2061.300	3144.000	2059.000	3174.000	2059.900	3243.000
GR	2060.000	3358.000	2056.900	3402.000	2057.400	3421.000	2059.700	3445.000	2059.500	3610.000
GR	2063.700	3690.000	2066.600	3792.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 3139

X1	8.500	19.000	2815.000	3339.000	1230.000	1255.000	1245.000	0.000	0.000	0.000
GR	2072.000	1275.000	2068.000	1840.000	2067.000	2430.000	2067.000	2430.000	2067.000	2430.000
GR	2064.800	2815.000	2064.100	2930.000	2064.400	2961.000	2064.600	2994.000	2064.200	3006.000
GR	2064.800	3068.000	2064.500	3090.000	2063.000	3139.000	2063.000	3159.000	2071.300	3339.000
GR	2075.900	3457.000	2080.200	3519.000	2077.100	3567.000	2079.200	3582.000	0.000	0.000
NC	0.045	0.045	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION = 3209.5

X1	8.750	14.000	3185.000	3405.000	1380.000	1250.000	1325.000	0.000	0.000	0.000
GR	2081.900	2000.000	2079.700	2097.000	2078.300	2471.000	2075.400	2993.000	2075.500	3185.000
GR	2072.200	3196.000	2072.200	3223.000	2077.200	3237.000	2077.200	3267.000	2073.100	3277.000
GR	2072.500	3317.000	2075.600	3328.000	2079.000	3405.000	2093.000	3950.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 7.426
MEET FILE LVWDCUPR

7.43	8.17	2034.47	2034.31	2034.47	2035.94	1.47	0.00	0.00	2028.00
5300.	1580.	3378.	342.	317.	293.	52.	0.	0.	2028.00
0.00	4.98	11.54	6.53	0.050	0.045	0.050	0.000	2026.30	9801.80
0.008629	0.	0.	0.	0	4	0	0.00	234.37	10036.17

CCHV= 0.300 CEHV= 0.500
*SECNO 7.540

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	7.63	2039.53	0.00	0.00	2040.09	0.56	3.87	0.27	2041.50
5300.	2676.	2624.	0.	1099.	320.	0.	11.	6.	2041.50
0.03	2.44	8.19	0.00	0.050	0.045	0.020	0.000	2031.90	1090.98
0.006196	350.	640.	950.	2	0	0	0.00	1074.30	2326.00

CCHV= 0.100 CEHV= 0.300
*SECNO 7.580

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2314.5

7.58	8.53	2040.43	0.00	0.00	2040.49	0.06	0.35	0.05	2039.00
5300.	3410.	1890.	0.	2199.	764.	1.	22.	12.	2040.30
0.06	1.55	2.47	0.13	0.050	0.040	0.050	0.000	2031.90	1321.08
0.000784	260.	130.	160.	2	0	0	0.00	1191.16	2512.24

*SECNO 7.720

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 2575

7.72	9.30	2044.90	2044.90	0.00	2045.75	0.85	1.24	0.24	2041.40
5300.	1965.	2466.	840.	634.	245.	213.	57.	28.	2043.30
0.09	3.10	10.18	3.94	0.050	0.040	0.050	0.000	2035.10	2025.80
0.006038	745.	735.	650.	20	11	0	0.00	676.70	2702.50

1490 NH CARD USED
*SECNO 8.080

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	6.10	2056.40	0.00	0.00	2056.73	0.33	10.93	0.05	2053.50
5300.	3317.	1918.	65.	1010.	303.	50.	110.	60.	2055.50
0.21	3.28	6.33	1.28	0.050	0.045	0.050	0.000	2050.30	1738.16
0.005338	1875.	2005.	1855.	2	0	0	0.00	751.34	2529.50

)
1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	4.73	2061.63	0.00	0.00	2061.90	0.27	5.17	0.01	2060.00
5300.	2291.	1699.	1310.	721.	299.	378.	140.	77.	2059.70
0.28	3.18	5.68	3.46	0.050	0.045	0.050	0.000	2056.90	2595.69
0.005732	915.	970.	920.	3	0	0	0.00	835.03	3650.57

)
CCHV= 0.100 CEHV= 0.300
*SECNO 8.500
CENTERLINE STATION = 3139

8.50	4.13	2067.13	0.00	0.00	2067.31	0.19	5.40	0.01	2064.80
5300.	943.	4357.	0.	478.	1167.	0.	193.	101.	2071.30
0.38	1.97	3.73	0.00	0.050	0.045	0.050	0.000	2063.00	2354.23
0.003414	1230.	1245.	1255.	5	0	0	0.00	894.30	3248.53

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

*SECNO 8.750

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	4.81	2077.01	2077.01	0.00	2077.65	0.64	7.20	0.14	2075.50
5300.	1964.	3336.	0.	533.	439.	0.	223.	125.	2079.00
0.44	3.69	7.60	0.00	0.045	0.040	0.045	0.000	2072.20	2703.20
0.009673	1380.	1325.	1250.	16	12	0	0.00	625.74	3359.93

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Las Vegas Wash Overflow Study - CCRFCD
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 LVWOCJMU 50-YR Flood Analysis - July 1987

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.000000	0.00	0.0	0.	2036.750	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 7.426

3265 DIVIDED FLOW

MEET FILE LVWDCUPR

7.43	10.45	2036.75	2036.63	2036.75	2037.58	0.83	0.00	0.00	2028.00
9800.	4858.	4030.	912.	1253.	384.	299.	0.	0.	2028.00
0.00	3.88	10.49	3.15	0.050	0.045	0.050	0.000	2026.30	8726.67
0.004972	0.	0.	3.	0	4	0	0.00	1265.83	10637.50

3
CCHV= 0.300 CEHV= 0.500
*SECNO 7.540

3265 DIVIDED FLOW

EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	8.21	2040.11	0.00	0.00	2040.82	0.70	3.20	0.04	2041.50
9800.	6281.	3519.	0.	1783.	345.	0.	21.	13.	2041.50
0.02	3.52	10.20	0.00	0.050	0.045	0.020	0.000	2031.90	898.75
0.008943	350.	640.	950.	1	0	0	0.00	1314.25	2326.00

3
CCHV= 0.100 CEHV= 0.300
*SECNO 7.580

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2314.5

7.58	9.39	2041.29	0.00	0.00	2041.39	0.11	0.52	0.06	2039.00
9800.	6614.	3145.	40.	3039.	940.	66.	37.	20.	2040.30
0.05	2.18	3.35	0.61	0.050	0.040	0.050	0.000	2031.90	1303.11
0.001088	260.	130.	160.	2	0	0	0.00	1326.14	2629.25

3
*SECNO 7.720

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	CENTERLINE STATION = 2575								
7.72	10.69	2045.79	2045.79	0.00	2046.73	0.93	1.65	0.25	2041.40
9800.	4907.	3259.	1633.	1167.	274.	327.	86.	38.	2043.30
0.08	4.21	11.91	4.99	0.050	0.040	0.050	0.000	2035.10	1900.08
0.007126	745.	735.	650.	20	12	0	0.00	821.75	2721.83

1490 NH CARD USED
*SECNO 8.080

3301 HV CHANGED MORE THAN HVINS

	CENTERLINE STATION = 2409								
8.08	7.15	2057.45	0.00	0.00	2057.81	0.37	11.03	0.06	2053.50
9800.	6681.	2592.	526.	1690.	376.	238.	175.	78.	2055.50
0.19	3.95	6.90	2.21	0.051	0.045	0.050	0.000	2050.30	1650.00
0.004766	1875.	2005.	1955.	5	0	0	0.00	1033.49	2683.49

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

	CENTERLINE STATION = 3402								
8.26	5.54	2062.44	0.00	0.00	2062.81	0.37	4.99	0.00	2060.00
9800.	4864.	2500.	2437.	1265.	370.	562.	223.	101.	2059.70
0.25	3.84	6.76	4.41	0.050	0.045	0.050	0.000	2056.90	2318.67
0.006096	915.	970.	920.	3	0	0	0.00	1124.54	3666.12

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

	CENTERLINE STATION = 3139								
8.50	5.08	2068.08	0.00	0.00	2068.32	0.24	5.50	0.01	2064.80
9800.	2812.	6988.	3.	1171.	1585.	0.	293.	138.	2071.30
0.33	2.40	4.41	0.00	0.050	0.045	0.050	0.000	2063.00	1830.24
0.003370	1230.	1245.	1255.	4	0	0	0.00	1438.69	3268.93

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 8.750

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	CENTERLINE STATION = 3209.5								
8.75	5.42	2077.62	2077.62	0.00	2078.53	0.91	8.42	0.20	2075.50
9800.	4782.	5018.	0.	858.	543.	0.	357.	172.	2079.00
0.39	5.58	9.23	0.00	0.045	0.040	0.045	0.000	2072.20	2594.22
0.015353	1380.	1325.	1250.	11	8	0	0.00	779.43	3373.64

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    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  ************************************************

  T1       Las Vegas Wash Overflow Study - CCRFCD
  T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
  T3       LVWDCJMU          100-YR Flood Analysis - July 1987

  J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

        0.        4.         0.         0.   0.000000       0.00       0.0         0.   2037.830      0.000

  J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

       3.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         CLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

  *PROF 3

  CCHV=   0.100  CEHV=   0.300
  *SECNO 7.426

  3265 DIVIDED FLOW

            MEET FILE LVWDCUPR
       7.43      11.53   2037.83       0.00    2037.83    2038.63       0.80       0.00       0.00    2028.00
   18000.      10309.      5022.      2670.      2318.       427.       780.          0.         0.    2028.00
       0.00       4.45      11.75       3.42       0.050      0.045      0.050      0.000   2026.30    8674.29
  0.005413          0.         0.         0.          0          0          0       0.00   1681.79   10691.50
)
  CCHV=   0.300  CEHV=   0.500
  *SECNO 7.540

  3265 DIVIDED FLOW

            EASTERN AVE. BRIDGE
            CENTERLINE STATION = 2305
       7.54       9.20   2041.10       0.00       0.00    2041.70       0.59       3.00       0.06    2041.50
   18000.      14115.      3885.         0.      3091.       387.          0.        36.        16.    2041.50
       0.02       4.57      10.05       0.00       0.050      0.045      0.020      0.000   2031.90     687.72
  0.007791         350.       640.       950.          2          0          0       0.00   1406.10    2326.00
)
  CCHV=   0.100  CEHV=   0.300
  *SECNO 7.580
            CENTERLINE STATION = 2314.5
       7.58      10.33   2042.23       0.00       0.00    2042.43       0.20       0.70       0.04    2039.00
   18000.      12403.      5267.       330.      3979.      1133.       243.        60.        24.    2040.30
       0.04       3.12       4.65       1.35       0.050      0.040      0.050      0.000   2031.90    1283.40
  0.001635         260.       130.       160.          2          0          0       0.00   1443.07    2726.47
)
  *SECNO 7.720

  3301 HV CHANGED MORE THAN HVINS

  3685 20 TRIALS ATTEMPTED WSEL,CWSEL
  3693 PROBABLE MINIMUM SPECIFIC ENERGY
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3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 2575

7.72	11.69	2046.79	2046.79	0.00	2047.94	1.15	2.34	0.28	2041.40
18000.	10613.	4334.	3053.	1884.	306.	482.	128.	45.	2043.30
0.07	5.63	14.17	6.33	0.050	0.040	0.050	0.000	2035.10	1773.52
0.008710	745.	735.	651.	20	12	0	0.00	1006.08	2779.60

1490 NH CARD USED
*SECNO 8.080

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	8.48	2058.79	0.00	0.00	2059.18	0.40	11.17	0.07	2053.50
18000.	12180.	3536.	2285.	2698.	469.	786.	271.	98.	2055.50
0.17	4.51	7.54	2.91	0.052	0.045	0.050	0.000	2050.30	1536.64
0.004231	1875.	2005.	1855.	6	0	0	0.00	1484.79	3021.43

1490 NH CARD USED
*SECNO 8.250

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	6.54	2063.44	0.00	0.00	2063.91	0.47	4.71	0.02	2060.00
18000.	10218.	3587.	4195.	2315.	457.	783.	351.	132.	2059.70
0.22	4.41	7.85	5.35	0.050	0.045	0.050	0.000	2056.90	1782.04
0.006209	915.	970.	923.	3	0	0	0.00	1694.95	3685.17

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	6.16	2069.16	0.00	0.00	2069.47	0.31	5.54	0.02	2064.80
18000.	7251.	10749.	0.	2330.	2093.	0.	464.	179.	2071.30
0.30	3.11	5.14	0.00	0.050	0.045	0.050	0.000	2063.00	1676.13
0.003376	1230.	1245.	1255.	4	0	0	0.00	1616.47	3292.59

*SECNO 8.750

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 3209.5

8.75	6.40	2078.60	2078.50	0.00	2079.70	1.10	8.31	0.24	2075.50
18000.	10429.	7571.	0.	1528.	739.	0.	568.	220.	2079.00
0.35	6.83	10.24	0.00	0.045	0.040	0.045	0.000	2072.20	2391.75
0.014498	1380.	1325.	1250.	11	8	0	0.00	1004.11	3395.87

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Las Vegas Wash Overflow Study - CCRFCD
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	3.	0.	0.000000	0.00	0.0	0.	2039.740	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	EN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
*SECNO 7.426
MEET FILE LVWDCUPR

7.43	13.44	2039.74	0.00	2039.74	2040.92	1.18	0.00	0.00	2028.00
54000.	33915.	8217.	11867.	5044.	504.	207.	0.	0.	2028.00
0.00	6.72	16.32	5.72	0.050	0.045	0.050	0.000	2026.30	8309.64
0.008375	0.	0.	0.	0	0	0	0.00	2477.36	10787.00

CCHV= 0.300 CEHV= 0.500
*SECNO 7.540
EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	11.77	2043.67	0.00	0.00	2044.51	0.84	3.48	0.10	2041.50
54000.	46077.	5371.	2552.	6696.	494.	398.	81.	25.	2041.50
0.02	6.88	10.87	6.41	0.050	0.045	0.020	0.000	2031.90	859.28
0.006687	350.	640.	950.	3	0	0	0.00	1834.81	2694.09

CCHV= 0.100 CEHV= 0.300
*SECNO 7.580
CENTERLINE STATION = 2314.5

7.58	13.01	2044.91	0.00	0.00	2045.47	0.56	0.94	0.03	2039.00
54000.	37013.	13113.	3863.	6754.	1683.	1177.	128.	35.	2040.30
0.03	5.48	7.79	3.29	0.050	0.040	0.050	0.000	2031.90	1227.31
0.002712	260.	130.	160.	2	0	0	0.00	1732.42	2959.73

*SECNO 7.720

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 2575

7.72	14.03	2049.13	2049.13	0.00	2050.98	1.85	3.65	0.39	2041.40
54000.	36395.	7345.	10260.	4007.	381.	1248.	255.	61.	2043.30
0.05	9.08	19.30	8.22	0.050	0.040	0.050	0.000	2035.10	1561.23
0.012053	745.	735.	650.	20	8	0	0.00	1484.17	3045.40

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.000
3280 CROSS SECTION 8.39 EXTENDED 0.03 FEET

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	11.53	2061.83	0.00	0.00	2062.23	0.41	11.11	0.14	2053.50
54000.	32033.	5587.	15979.	6987.	682.	3911.	624.	160.	2055.50
0.15	4.58	8.77	4.19	0.057	0.045	0.050	0.000	2050.30	480.00
0.003479	1875.	2005.	1855.	3	0	0	0.09	3111.38	3591.38

1490 NH CARD USED
*SECNO 8.250
CENTERLINE STATION = 3402

8.26	8.83	2065.73	0.00	0.00	2066.26	0.52	3.99	0.04	2060.00
54000.	38305.	6174.	9521.	8159.	656.	1415.	853.	229.	2059.70
0.20	4.69	9.41	6.73	0.053	0.045	0.050	0.000	2056.90	328.06
0.005518	915.	970.	920.	4	0	0	0.00	3433.35	3761.45

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500
CENTERLINE STATION = 3139

8.50	8.66	2071.66	0.00	0.00	2072.28	0.62	6.00	0.03	2064.80
54000.	28997.	25002.	1.	5617.	3353.	2.	1125.	306.	2071.30
0.26	5.16	7.46	0.62	0.050	0.045	0.050	0.000	2063.00	1323.11
0.004296	1230.	1245.	1255.	3	0	0	0.00	2025.11	3348.22

*SECNO 8.750

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	8.69	2080.89	2080.89	0.00	2082.73	1.84	9.51	0.37	2075.50
54000.	35965.	16780.	255.	3891.	1242.	70.	1347.	360.	2079.00
0.29	9.50	13.51	3.58	0.045	0.040	0.045	0.000	2072.20	2044.53
0.013366	1380.	1325.	1250.	5	5	0	0.00	1434.04	3478.57

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LVWDCJMU 25-YR F

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7.426	0.00	0.00	0.00	2026.30	5300.00	2034.47	2034.31	2035.94	86.28	11.54	662.25	570.58
7.426	0.00	0.00	0.00	2026.30	9800.01	2036.75	2036.63	2037.58	49.72	10.49	1936.19	1389.77

7.426	0.00	0.00	0.00	2026.30	18000.00	2037.83	0.00	2035.63	54.13	11.75	3525.50	2446.62
7.426	0.00	0.00	0.00	2026.30	54000.00	2039.74	0.00	2040.92	83.75	16.32	7621.71	5900.61
7.540	640.00	0.00	0.00	2031.90	5300.00	2039.53	0.00	2040.09	61.96	8.19	1418.16	673.34
7.540	640.00	0.00	0.00	2031.90	9800.00	2040.11	0.00	2040.82	89.43	10.20	2128.10	1036.30
7.540	640.00	0.00	0.00	2031.90	18000.00	2041.10	0.00	2041.70	77.91	10.05	3477.64	2039.21
7.540	640.00	0.00	0.00	2031.90	54000.00	2043.67	0.00	2044.51	66.87	10.87	7588.40	6603.41
7.580	130.00	0.00	0.00	2031.90	5300.00	2040.43	0.00	2040.49	7.84	2.47	2963.86	1892.94
7.580	130.00	0.00	0.00	2031.90	9800.00	2041.29	0.00	2041.39	10.88	3.35	4045.50	2971.73
7.580	130.00	0.00	0.00	2031.90	18000.00	2042.23	0.00	2042.43	16.35	4.65	5355.38	4450.93
7.580	130.00	0.00	0.00	2031.90	54000.00	2044.91	0.00	2045.47	27.12	7.79	9614.19	10369.41
* 7.720	735.00	0.00	0.00	2035.10	5300.00	2044.90	2044.90	2045.75	60.38	10.18	1092.09	682.08
* 7.720	735.00	0.00	0.00	2035.10	9800.00	2045.79	2045.79	2046.73	71.26	11.91	1767.29	1160.90
* 7.720	735.00	0.00	0.00	2035.10	18000.00	2046.79	2046.79	2047.94	87.10	14.17	2671.88	1928.71
* 7.720	735.00	0.00	0.00	2035.10	54000.00	2049.13	2049.13	2050.98	120.53	19.30	5636.19	4918.63
8.080	2005.00	0.00	0.00	2050.30	5300.00	2056.40	0.00	2056.73	53.38	6.33	1363.84	725.42
8.080	2005.00	0.00	0.00	2050.30	9800.00	2057.45	0.00	2057.81	47.66	6.90	2303.23	1419.52
8.080	2005.00	0.00	0.00	2050.30	18000.00	2058.78	0.00	2059.18	42.31	7.54	3952.88	2767.36
8.080	2005.00	0.00	0.00	2050.30	54000.00	2061.83	0.00	2062.23	34.79	8.77	11480.10	9155.75
8.260	970.00	0.00	0.00	2056.90	5300.00	2061.63	0.00	2061.90	57.32	5.68	1398.16	700.03
8.260	970.00	0.00	0.00	2056.90	9800.00	2062.44	0.00	2062.81	60.96	6.76	2187.43	1255.18
8.260	970.00	0.00	0.00	2056.90	18000.00	2063.44	0.00	2063.91	62.09	7.85	3555.22	2284.40
8.260	970.00	0.00	0.00	2056.90	54000.00	2065.73	0.00	2066.26	55.18	9.41	10229.29	7269.75
8.500	1245.00	0.00	0.00	2063.00	5300.00	2067.13	0.00	2067.31	34.14	3.73	1644.86	907.13
8.500	1245.00	0.00	0.00	2063.00	9800.00	2068.08	0.00	2068.32	33.70	4.41	2755.65	1688.18
8.500	1245.00	0.00	0.00	2063.00	18000.00	2069.16	0.00	2069.47	33.76	5.14	4422.35	3098.01
8.500	1245.00	0.00	0.00	2063.00	54000.00	2071.66	0.00	2072.28	42.96	7.46	8971.38	8239.19

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	8.750	1325.00	0.00	0.00	2072.20	5300.00	2077.01	2077.01	2077.65	96.73	7.60	971.93	538.88
*	8.750	1325.00	0.00	0.00	2072.20	9800.00	2077.62	2077.62	2078.53	153.53	9.23	1400.90	790.92
*	8.750	1325.00	0.00	0.00	2072.20	18000.00	2078.60	2078.60	2079.70	144.98	10.24	2267.04	1494.93
*	8.750	1325.00	0.00	0.00	2072.20	54000.00	2080.89	2080.89	2082.73	133.66	13.51	5202.86	4670.90

LVWDCJMU 25-YR F

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.426	5300.00	2034.47	0.00	0.00	0.00	234.37	0.00
7.426	9800.00	2036.75	2.28	0.00	0.00	1265.83	0.00
7.426	18000.00	2037.83	1.08	0.00	0.00	1681.79	0.00
7.426	54000.00	2039.74	1.91	0.00	0.00	2477.36	0.00
7.540	5300.00	2039.53	0.00	5.06	0.00	1074.30	640.00
7.540	9800.00	2040.11	0.58	3.36	0.00	1314.25	640.00
7.540	18000.00	2041.10	0.99	3.27	0.00	1406.10	640.00
7.540	54000.00	2043.67	2.56	3.93	0.00	1834.81	640.00
7.580	5300.00	2040.43	0.00	0.90	0.00	1191.16	130.00
7.580	9800.00	2041.29	0.85	1.17	0.00	1326.14	130.00
7.580	18000.00	2042.23	0.94	1.12	0.00	1443.07	130.00

	7.580	54000.00	2044.91	2.68	1.25	0.00	1732.42	130.00
*	7.720	5300.00	2044.90	0.00	4.46	0.00	676.70	735.00
*	7.720	9800.00	2045.79	0.89	4.50	0.00	821.75	735.00
*	7.720	18000.00	2046.79	1.00	4.56	0.00	1006.08	735.00
*	7.720	54000.00	2049.13	2.34	4.22	0.00	1484.17	735.00
	8.080	5300.00	2056.40	0.00	11.51	0.00	791.34	2005.00
	8.080	9800.00	2057.45	1.04	11.66	0.00	1033.49	2005.00
	8.080	18000.00	2058.78	1.33	11.99	0.00	1484.79	2005.00
	8.080	54000.00	2061.83	3.05	12.69	0.00	3111.38	2005.00
	8.250	5300.00	2061.63	0.00	5.23	0.00	835.03	970.00
	8.250	9800.00	2062.44	0.81	4.99	0.00	1124.54	970.00
	8.250	18000.00	2063.44	1.00	4.66	0.00	1694.99	970.00
	8.250	54000.00	2065.73	2.29	3.91	0.00	3433.39	970.00
	8.500	5300.00	2067.13	0.00	5.50	0.00	894.30	1245.00
	8.500	9800.00	2068.08	0.95	5.64	0.00	1439.69	1245.00
	8.500	18000.00	2069.16	1.08	5.72	0.00	1616.47	1245.00
	8.500	54000.00	2071.66	2.50	5.93	0.00	2025.11	1245.00
*	8.750	5300.00	2077.01	0.00	9.88	0.00	625.74	1325.00
*	8.750	9800.00	2077.62	0.61	9.54	0.00	779.43	1325.00
*	8.750	18000.00	2078.60	0.98	9.44	0.00	1004.11	1325.00
*	8.750	54000.00	2080.89	2.29	9.23	0.00	1434.04	1325.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 7.720 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.720 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.720 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 7.720 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.720 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.720 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 7.720 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.720 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.720 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 7.720 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 7.720 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 7.720 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8.750 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.750 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.750 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.750 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.750 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.750 PROFILE= 3 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.750 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.750 PROFILE= 4 MINIMUM SPECIFIC ENERGY

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  19-FEB-88 TIME   09:15:23          *
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 ***************************************
 *  U.S. ARMY CORPS OF ENGINEERS       *
 *  THE HYDROLOGIC ENGINEERING CENTER  *
 *  609 SECOND STREET, SUITE D         *
 *  DAVIS, CALIFORNIA 95616            *
 *  (916) 440-2105 (FTS) 448-2105      *
 ***************************************
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See 7.54 – 8.75

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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                          X
XXXXXXX  XXXX     X           XXXXX    XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX   XXXXX               XXXXXXX
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 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************

C
T1       Las Vegas Wash Overflow Study - CCRFCD
T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3       JMU_NONDAM          Nondamaging Flow Analysis - February 1988

J1   ICHECK     INQ        NINV       IDIR       STRT      METRIC     HVINS      Q          WSEL       FQ
       0.         2.         0.         0.  0.000000       0.00       0.0        0.   2034.470     0.000
J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3   VARIABLE CODES FOR SUMMARY PRINTOUT
     150.000    0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC       0.050      0.050      0.045      0.100      0.300      0.000      0.000      0.000      0.000      0.000
QT       5.000    300.000   1000.000   1500.000   2000.000  30000.000      0.000      0.000      0.000      0.000
NC       0.050      0.020      0.045      0.300      0.500      0.000      0.000      0.000      0.000      0.000
           EASTERN AVE. BRIDGE
           CENTERLINE STATION = 2305
X1       7.540     11.000   2284.000   2326.000    350.000    950.000    640.000      0.000      0.000      0.000
GR    2044.500    850.000   2040.000    900.000   2037.400   1950.000   2041.500   2284.000   2031.500   2284.000
GR    2031.900   2326.000   2041.500   2326.000   2043.700   2700.000   2045.000   2980.000   2046.500   3380.000
GR    2048.000   3650.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
BT      14.000   2284.000   2041.500   2031.900   2287.000   2041.500   2036.200   2290.000   2041.500   2038.000
BT    2294.000   2041.500   2039.000   2298.000   2041.500   2038.000   2301.000   2041.500   2036.200   2304.000
BT    2041.500   2031.900   2306.000   2041.500   2031.900   2309.000   2041.500   2036.200   2312.000   2041.500
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BT	2038.300	2316.000	2041.500	2039.000	2320.000	2041.500	2038.000	2323.000	2041.500	2036.200
BT	2326.000	2041.500	2031.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 2314.5									
X1	7.580	16.000	2290.000	2495.000	260.000	160.000	130.000	0.000	0.000	0.000
GR	2045.500	1215.000	2040.000	1330.000	2040.000	1470.000	2036.400	1670.000	2036.400	1671.000
GR	2039.000	2290.000	2039.000	2290.000	2031.900	2303.500	2031.500	2326.500	2037.560	2336.000
GR	2036.300	2433.000	2038.000	2461.000	2040.300	2495.000	2041.600	2672.000	2044.000	2880.000
GR	2048.300	3230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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	CENTERLINE STATION = 2575									
X1	7.720	19.000	2553.000	2585.000	745.000	650.000	735.000	0.000	0.000	0.000
GR	2052.300	1410.000	2048.000	1621.000	2048.000	1621.000	2048.000	1621.000	2048.000	1621.000
GR	2045.300	2000.000	2045.000	2000.000	2043.100	2473.000	2041.400	2529.000	2041.400	2553.000
GR	2035.300	2561.000	2035.100	2575.000	2043.300	2585.000	2043.300	2640.000	2039.500	2657.000
GR	2043.300	2668.000	2046.400	2735.000	2049.200	3053.000	2052.600	3189.000	0.000	0.000
NH	5.000	0.030	830.000	0.125	1800.000	0.050	2349.000	0.045	2419.000	0.050
NH	3700.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 2409									
X1	8.380	23.000	2349.000	2419.000	1875.000	1855.000	2005.000	0.000	0.000	0.000
GR	2061.800	480.000	2060.000	680.000	2060.000	830.000	2060.000	930.000	2060.000	1030.000
GR	2060.300	1433.000	2056.000	1773.000	2056.000	1773.000	2056.000	1773.000	2056.000	1773.000
GR	2053.800	2000.000	2053.600	2098.000	2055.000	2194.000	2055.500	2332.000	2053.500	2349.000
GR	2051.400	2390.000	2050.300	2409.000	2055.500	2419.000	2056.900	2589.000	2058.000	2779.000
GR	2060.300	3400.000	2060.000	3500.000	2062.000	3600.000	0.000	0.000	0.000	0.000
NH	5.000	0.050	1350.000	0.125	2000.000	0.050	3358.000	0.045	3445.000	0.050
NH	3792.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 3402									
X1	8.260	32.000	3358.000	3445.000	915.000	920.000	970.000	0.000	0.000	0.000
GR	2068.300	260.000	2064.000	380.000	2064.000	1350.000	2065.000	1650.000	2063.000	1820.000
GR	2064.300	2000.000	2063.700	2033.000	2063.200	2182.000	2062.500	2208.000	2062.900	2254.000
GR	2062.500	2283.000	2062.500	2309.000	2062.300	2345.000	2063.400	2533.000	2063.300	2590.000
GR	2058.300	2605.000	2061.700	2616.000	2060.500	2697.000	2059.400	2724.000	2060.000	2820.000
GR	2061.300	2837.000	2062.400	2962.000	2061.300	3144.000	2059.000	3174.000	2059.900	3243.000
GR	2060.300	3358.000	2056.900	3402.000	2057.400	3421.000	2059.700	3445.000	2059.500	3610.000
GR	2063.700	3690.000	2066.600	3792.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 3139									
X1	8.500	19.000	2815.000	3339.000	1230.000	1255.000	1245.000	0.000	0.000	0.000
GR	2072.300	1275.000	2068.000	1840.000	2067.000	2430.000	2067.000	2430.000	2067.000	2430.000
GR	2064.800	2815.000	2064.100	2930.000	2064.400	2961.000	2064.600	2994.000	2064.200	3006.000
GR	2064.300	3068.000	2064.500	3090.000	2063.000	3139.000	2063.000	3159.000	2071.300	3339.000
GR	2075.900	3457.000	2080.200	3519.000	2077.100	3567.000	2079.200	3582.000	0.000	0.000
NC	0.045	0.045	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CENTERLINE STATION = 3209.5									
X1	8.750	14.000	3185.000	3405.000	1380.000	1250.000	1325.000	0.000	0.000	0.000
GR	2081.900	2000.000	2079.700	2097.000	2078.300	2471.000	2075.400	2993.000	2075.500	3185.000
GR	2072.200	3196.000	2072.200	3223.000	2077.200	3237.000	2077.200	3267.000	2073.100	3277.000
GR	2072.500	3317.000	2075.600	3328.000	2079.000	3405.000	2093.000	3950.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

```
 *PROF 1

 CCHV=   0.100  CEHV=   0.300
 CCHV=   0.300  CEHV=   0.500
 *SECNO 7.540
          EASTERN AVE. BRIDGE
          CENTERLINE STATION = 2305
      7.54       2.57  2034.47       0.00  2034.47  2034.59       0.12       0.00       0.00  2041.50
       300.         0.      300.         0.      0.      108.         0.         0.         0.   2041.50
      0.00       0.00       2.78       0.00     0.050    0.045      0.020     0.000   2031.90   2284.00
  0.002347       350.       640.       950.         0        0          0      0.00     42.00   2326.00

 CCHV=   0.100  CEHV=   0.300
 *SECNO 7.580
          CENTERLINE STATION = 2314.5
      7.58       2.86  2034.76       0.00      0.00  2034.98       0.21       0.36       0.03  2039.00
       300.         0.      300.         0.      0.      81.         0.         0.         0.   2040.30
      0.01       0.00       3.72       0.00     0.050    0.040      0.050     0.000   2031.90   2297.76
  0.003276       260.       130.       160.         2        0          0      0.00     33.35   2331.11

 *SECNO 7.720
          CENTERLINE STATION = 2575
      7.72       3.06  2038.16       0.00      0.00  2038.66       0.51       3.60       0.09  2041.40
       300.         0.      300.         0.      0.      53.         0.         1.         1.   2043.30
      0.05       0.00       5.71       0.00     0.050    0.040      0.050     0.000   2035.10   2557.25
  0.008095       745.       735.       650.         3        0          0      0.00     21.49   2578.73

 1490 NH CARD USED
 *SECNO 8.080
          CENTERLINE STATION = 2409
      8.08       2.95  2053.25       0.00      0.00  2053.44       0.18      14.74       0.03  2053.50
       300.         0.      300.         0.      0.      88.         0.         5.         2.   2055.50
      0.21       0.00       3.42       0.00     0.050    0.045      0.050     0.000   2050.30   2353.77
  0.006709      1875.      2005.      1855.         6        0          0      0.00     60.92   2414.68

 1490 NH CARD USED
 *SECNO 8.250
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XML        XNCH       XNR        WTN        ELMIN        SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


  3265 DIVIDED FLOW

          CENTERLINE STATION = 3402
      8.26       2.37  2059.27       0.00      0.00  2059.41       0.14       5.97       0.00  2060.00
       300.         2.      298.         0.      4.      98.         1.         7.         4.   2059.70
      0.30       0.59       3.05       0.00     0.050    0.045      0.050     0.000   2056.90   2603.77
  0.005668       915.       970.       920.         4        0          0      0.00     98.11   3440.43

 CCHV=   0.100  CEHV=   0.300
 *SECNO 8.500
          CENTERLINE STATION = 3139
      8.50       1.82  2064.82       0.00      0.00  2064.85       0.03       5.43       0.01  2064.80
       300.         0.      300.         0.      0.      222.         0.        11.        11.   2071.30
      0.55       0.02       1.35       0.00     0.050    0.045      0.050     0.000   2063.00   2812.39
  0.003461      1230.      1245.      1255.         6        0          0      0.00    385.97   3198.36

 *SECNO 8.750

 3265 DIVIDED FLOW
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          CENTERLINE STATION = 3209.5
     8.75      1.27  2073.47      0.00      0.00  2073.77      0.31      8.84      0.08  2075.50
      300.        0.       300.       0.        0.      68.       0.       16.       18.   2079.00
     0.64      0.00      4.44      0.00     0.045     0.040     0.045     0.000  2072.20  3191.78
 0.017809     1380.     1325.     1250.         4         0         0      0.00     79.09  3320.43
)
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 ***********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***********************************************

 T1       Las Vegas Wash Overflow Study - CCREEK
 T2       James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
 T3       JMU_NONDAM        Flow Analysis - February 1988

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL      FQ

       0.        3.        0.        0.  0.000000        0.00       0.0        0.   2036.750     0.000

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     2.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 2

 CCHV=   0.100 CEHV=   0.300
 CCHV=   0.300 CEHV=   0.500
 *SECNO 7.540
          EASTERN AVE. BRIDGE
          CENTERLINE STATION = 2305
     7.54      4.85  2036.75      0.00  2036.75  2037.12      0.37      0.00      0.00  2041.50
     1000.        0.      1000.       0.        0.      204.      0.        0.        0.   2041.50
      0.00      0.00      4.91      0.00     0.050     0.045     0.020     0.000  2031.90  2284.00
 0.003551       350.      640.      950.         0         0         0      0.00     42.00  2326.00
)
 CCHV=   0.100 CEHV=   0.300
 *SECNO 7.580

 3265 DIVIDED FLOW

          CENTERLINE STATION = 2314.5
     7.58      5.69  2037.59      0.00      0.00  2037.70      0.11      0.55      0.03  2039.00
     1000.      277.       723.       0.        0.      210.      240.      0.        1.        1.   2040.30
      0.02      1.32      3.02      0.00     0.050     0.040     0.050     0.000  2031.90  1603.79
 0.003909       260.      130.      160.         3         0         0      0.00    509.84  2451.47
)
 *SECNO 7.720

 3265 DIVIDED FLOW
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3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2575

7.72	5.86	2040.96	0.00	0.00	2041.94	0.98	3.98	0.26	2041.40
1000.	0.	984.	16.	0.	123.	8.	6.	6.	2043.30
0.04	0.00	8.02	2.10	0.050	0.040	0.050	0.000	2035.10	2553.58
0.007967	745.	735.	650.	2	0	0	0.00	39.33	2661.23

1490 NH CARD USED
*SECNO 8.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	4.24	2054.54	0.00	0.00	2054.78	0.24	12.76	0.07	2053.50
1000.	235.	765.	0.	145.	173.	0.	16.	14.	2055.50
0.19	1.62	4.42	0.00	0.050	0.045	0.050	0.000	2050.30	1923.67
0.005279	1975.	2005.	1855.	5	0	0	0.00	315.76	2417.15

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	3.22	2060.12	0.00	0.00	2060.31	0.19	5.52	0.01	2060.00
1000.	182.	683.	135.	126.	168.	90.	24.	23.	2059.70
0.27	1.44	4.07	1.52	0.050	0.045	0.050	0.000	2056.90	2600.84
0.006363	915.	970.	920.	6	0	0	0.00	586.64	3621.82

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	2.47	2065.47	0.00	0.00	2065.53	0.06	5.21	0.01	2064.80
1000.	30.	970.	0.	39.	477.	0.	37.	39.	2071.30
0.44	0.78	2.03	0.00	0.050	0.045	0.050	0.000	2063.00	2698.02
0.002965	1230.	1245.	1255.	6	0	0	0.00	514.52	3212.53

*SECNO 8.750

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 3209.5

8.75	2.12	2074.32	2074.32	0.00	2075.12	0.79	8.29	0.22	2075.50

1000.	0.	1000.	0.	0.	140.	0.	47.	48.	2079.00	
0.50	0.00	7.16	0.00	0.045	0.040	0.045	0.000	2072.20	3186.92	
0.020826	1380.	1325.	1251.	9	15	0	0.00	89.47	3323.47	

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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1      Las Vegas Wash Overflow Study - CCRFCD
T2      James M. Montgomery, Consulting Engineers, Inc. - M. Bacstad
T3      JMU_NONDAM      Flow Analysis - February 1988
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.000000	0.00	0.0	0.	2037.830	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 3

CCHV=   0.100  CEHV=   0.300
CCHV=   0.300  CEHV=   0.500
*SECNO 7.540

3265 DIVIDED FLOW

          EASTERN AVE. BRIDGE
          CENTERLINE STATION = 2305
     7.54      5.93  2037.83      0.00  2037.83  2038.36      0.53      0.00      0.00  2041.50
  1500.        31.     1469.        0.       45.      249.        0.        0.        0.  2041.50
     0.00      0.69      5.90      0.00     0.050    0.045     0.020     0.000  2031.90  1776.37
 0.004142     350.      640.      950.         0         0         0      0.00    250.65  2326.80

CCHV=   0.100  CEHV=   0.300
*SECNO 7.580

3265 DIVIDED FLOW

          CENTERLINE STATION = 2314.5
     7.58      6.74  2038.64      0.00     0.00  2038.68      0.04      0.27      0.05  2039.00
  1500.       702.      798.        3.      738.      418.        3.        3.        3.  2040.30
     0.03      0.95      1.91      0.00     0.050    0.040     0.050     0.000  2031.90  1545.65
 0.000879     260.      130.      160.         2         0         0      0.00    838.01  2470.44

*SECNO 7.720

3265 DIVIDED FLOW
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3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 2575

7.72	5.41	2041.51	2041.51	0.00	2043.16	1.64	1.61	0.48	2041.40
1500.	2.	1450.	48.	3.	139.	15.	14.	11.	2043.30
0.05	0.75	10.44	3.22	0.050	0.040	0.050	0.000	2035.10	2525.22
0.012193	745.	735.	650.	20	8	0	0.00	72.45	2662.83

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.080

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	4.84	2055.14	0.00	0.00	2055.32	0.18	12.02	0.15	2053.50
1500.	602.	898.	0.	331.	215.	0.	30.	22.	2055.50
0.22	1.82	4.18	0.00	0.050	0.045	0.050	0.000	2050.30	1861.09
0.003634	1875.	2005.	1855.	7	0	0	0.00	456.58	2418.32

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	3.36	2060.26	0.00	0.00	2060.54	0.27	5.19	0.03	2060.00
1500.	339.	919.	242.	172.	180.	114.	41.	33.	2059.70
0.29	1.97	5.11	2.12	0.050	0.045	0.050	0.000	2056.90	2600.36
0.009139	915.	970.	923.	3	0	0	0.00	557.36	3624.47

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	2.85	2065.85	0.00	0.00	2065.93	0.07	5.37	0.02	2064.80
1500.	95.	1405.	0.	97.	633.	0.	58.	50.	2071.30
0.45	0.97	2.22	0.00	0.050	0.045	0.050	0.000	2063.00	2630.43
0.002507	1230.	1245.	1255.	6	0	0	0.00	590.48	3220.91

*SECNO 8.750

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	SCH	AROB	VOL	YWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	YLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	2.64	2074.84	2074.34	0.00	2075.83	1.00	7.20	0.28	2075.50
1500.	0.	1500.	0.	0.	187.	0.	72.	61.	2079.00
0.50	0.00	8.01	0.00	0.045	0.040	0.045	0.000	2072.20	3187.22
0.019412	1380.	1325.	1250.	20	11	0	0.00	95.68	3325.29

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Las Vegas Wash Overflow Study - CCRFCD
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstad
T3 JMU_NONDAM Flow Analysis - February 1988

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.000000	0.00	0.0	0.	2039.740	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	4.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 4

CCHV= 0.100 CEHV= 0.300
CCHV= 0.300 CEHV= 0.500
*SECNO 7.540

3265 DIVIDED FLOW

EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	7.84	2039.74	0.00	2039.74	2039.80	0.06	0.00	0.00	2041.50
2000.	1116.	884.	0.	1329.	329.	0.	0.	0.	2041.50
0.00	0.84	2.68	0.00	0.050	0.045	0.020	0.000	2031.90	1005.00
0.000648	350.	640.	950.	9	0	0	0.00	1177.62	2326.00

CCHV= 0.100 CEHV= 0.300
*SECNO 7.580
CENTERLINE STATION = 2314.5

7.53	7.96	2039.86	0.00	0.00	2039.87	0.01	0.07	0.00	2039.00

2000.	1212.	788.	0.	1672.	649.	0.	10.	6.	2040.30
0.06	0.72	1.21	0.00	0.050	0.040	0.050	0.000	2031.90	1477.85
0.000225	260.	130.	160.	0	0	0	0.00	1010.63	2488.48

*SECNO 7.720

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 2575

7.72	7.42	2042.52	2042.52	0.00	2043.99	1.47	0.50	0.44	2041.40
2000.	126.	1748.	126.	47.	169.	34.	32.	16.	2043.30
0.08	2.65	10.32	3.76	0.050	0.040	0.050	0.000	2035.10	2492.15
0.009705	745.	735.	650.	20	11	0	0.00	114.14	2665.74

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.080

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	5.13	2055.43	0.10	0.00	2055.63	0.20	11.52	0.13	2053.50
2000.	931.	1069.	0.	452.	234.	0.	53.	30.	2055.50
0.24	2.06	4.57	0.00	0.050	0.045	0.050	0.000	2050.30	1832.68
0.003920	1875.	2005.	1855.	5	0	0	0.00	563.87	2418.85

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	3.60	2060.50	0.03	0.00	2060.75	0.25	5.10	0.01	2060.00
2000.	577.	1035.	388.	256.	201.	160.	67.	43.	2059.70
0.31	2.25	5.14	2.43	0.050	0.045	0.050	0.000	2056.90	2599.52
0.007926	915.	970.	920.	4	0	0	0.00	616.95	3629.22

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	3.08	2066.08	0.00	0.00	2066.17	0.09	5.40	0.02	2064.80
2000.	167.	1833.	0.	144.	726.	0.	68.	61.	2071.30
0.46	1.16	2.53	0.00	0.050	0.045	0.050	0.000	2063.00	2590.43
0.002740	1230.	1245.	1255.	6	0	0	0.00	635.43	3225.87

*SECNO 8.750

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3301 NO CHANNEL MORE THAN 4VERS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	3.04	2075.24	2075.24	0.00	2076.45	1.21	7.70	0.33	2075.50
2000.	0.	2000.	0.	0.	227.	0.	105.	72.	2079.00
0.50	0.00	8.82	0.00	0.045	0.040	0.045	0.000	2072.20	3185.87
0.019515	1380.	1325.	1250.	12	8	0	0.00	100.57	3326.72

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 Las Vegas Wash Overflow Study - CCRFCD
T2 James M. Montgomery, Consulting Engineers, Inc. - M. Bagstac
T3 JMU_NONDAM Flow Analysis - February 1988

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	2.	6.	0.	0.	0.000000	0.00	0.0	0.	2039.740	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XAL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 5

CCHV= 0.100 CEHV= 0.300
CCHV= 0.300 CEHV= 0.500
*SECNO 7.540

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED
EASTERN AVE. BRIDGE
CENTERLINE STATION = 2305

7.54	9.55	2041.45	2041.45	2039.74	2042.62	1.17	0.00	0.00	2041.50
30000.	24348.	5652.	0.	3560.	401.	0.	0.	0.	2041.50

0.00	6.84	14.10	0.00	0.050	0.045	0.020	0.000	2031.90	883.94
0.014836	350.	640.	950.	0	10	0	0.00	1437.58	2326.00

CCHV= 0.100 CEHV= 0.300
*SECNO 7.530

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2314.5

7.58	11.47	2043.37	0.00	0.00	2043.69	0.32	0.99	0.08	2039.00
30000.	20772.	8027.	1201.	5140.	1367.	564.	30.	8.	2040.30
0.01	4.04	5.87	2.13	0.050	0.040	0.050	0.000	2031.90	1259.56
0.002033	260.	130.	160.	3	0	0	0.00	1565.75	2825.30

*SECNO 7.720

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION = 2575

7.72	12.73	2047.83	2047.83	0.00	2049.20	1.37	2.82	0.31	2041.40
30000.	19198.	5492.	5309.	2757.	339.	744.	121.	32.	2043.30
0.04	6.96	16.21	7.14	0.050	0.040	0.050	0.000	2035.10	1642.93
0.009931	745.	735.	650.	20	8	0	0.00	1254.07	2897.00

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 8.080

3301 HV CHANGED MORE THAN HVINS

CENTERLINE STATION = 2409

8.08	9.81	2060.11	0.00	0.00	2060.54	0.43	11.25	0.09	2053.50
30000.	19108.	4618.	6273.	3933.	562.	1869.	342.	119.	2055.50
0.14	4.86	8.22	3.36	0.053	0.045	0.050	0.000	2050.30	667.96
0.003952	1875.	2005.	1855.	6	0	0	0.00	2837.46	3505.42

1490 NH CARD USED
*SECNO 8.260

3265 DIVIDED FLOW

CENTERLINE STATION = 3402

8.26	7.57	2064.47	0.00	0.00	2064.94	0.48	4.39	0.01	2060.00
30000.	19052.	4665.	6283.	4404.	546.	1042.	472.	183.	2059.70
0.19	4.33	8.55	6.03	0.051	0.045	0.050	0.000	2056.90	366.02
0.005812	915.	970.	920.	3	0	0	0.00	3145.36	3716.94

CCHV= 0.100 CEHV= 0.300
*SECNO 8.500

CENTERLINE STATION = 3139

8.50	7.21	2070.21	0.00	0.00	2070.62	0.41	5.67	0.01	2064.80
30000.	14254.	15746.	0.	3605.	2607.	0.	645.	252.	2071.30
0.26	3.95	6.04	0.00	0.050	0.045	0.050	0.000	2063.00	1527.60
0.003706	1230.	1245.	1255.	3	0	0	0.00	1787.80	3315.40

*SECNO 8.750

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION = 3209.5

8.75	7.35	2079.55	2079.55	0.00	2080.92	1.37	8.74	0.29	2075.50
30000.	19093.	10897.	10.	2406.	948.	6.	795.	301.	2079.00
0.30	7.93	11.50	1.65	0.045	0.040	0.045	0.000	2072.20	2136.79
0.013896	1380.	1325.	1250.	10	8	0	0.00	1289.66	3426.45

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

JMU_NCNDAM Nonda

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	7.540	0.00	0.00	0.00	2031.90	300.00	2034.47	0.00	2034.59	23.47	2.78	107.94	61.92
	7.540	0.00	0.00	0.00	2031.90	1000.00	2036.75	0.00	2037.12	35.51	4.91	203.70	167.81
	7.540	0.00	0.00	0.00	2031.90	1500.00	2037.83	0.00	2038.36	41.42	5.90	293.91	253.07
	7.540	0.00	0.00	0.00	2031.90	2000.00	2039.74	0.00	2039.80	6.48	2.68	1657.86	785.74
•	7.540	0.00	0.00	0.00	2031.90	30000.00	2041.45	2041.45	2042.62	148.36	14.10	3961.19	2462.98
	7.580	130.00	0.00	0.00	2031.90	300.00	2034.76	0.00	2034.98	32.76	3.72	80.62	52.42
	7.580	130.00	0.00	0.00	2031.90	1000.00	2037.59	0.00	2037.70	39.09	3.02	449.35	159.95
	7.580	130.00	0.00	0.00	2031.90	1500.00	2038.64	0.00	2038.68	8.79	1.91	1155.76	506.08
	7.580	130.00	0.00	0.00	2031.90	2000.00	2039.86	0.00	2039.87	2.25	1.21	2321.07	1333.33
	7.580	130.00	0.00	0.00	2031.90	30000.00	2043.37	0.00	2043.69	20.33	5.87	7070.97	6653.29
	7.720	735.00	0.00	0.00	2035.10	300.00	2038.16	0.00	2038.66	80.95	5.71	52.56	33.34
	7.720	735.00	0.00	0.00	2035.10	1000.00	2040.96	0.00	2041.94	79.67	8.02	130.45	112.03
*	7.720	735.00	0.00	0.00	2035.10	1500.00	2041.51	2041.51	2043.16	121.93	10.44	156.74	135.84
*	7.720	735.00	0.00	0.00	2035.10	2000.00	2042.52	2042.52	2043.99	97.05	10.32	250.40	203.02
•	7.720	735.00	0.00	0.00	2035.10	30000.00	2047.83	2047.83	2049.20	99.31	16.21	3840.02	3010.40
	8.080	2005.00	0.00	0.00	2050.30	300.00	2053.25	0.00	2053.44	67.09	3.42	87.73	36.63
	8.080	2005.00	0.00	0.00	2050.30	1000.00	2054.54	0.00	2054.78	52.79	4.42	318.45	137.63
	8.080	2005.00	0.00	0.00	2050.30	1500.00	2055.14	0.00	2055.32	36.33	4.18	545.66	248.84
	8.080	2005.00	0.00	0.00	2050.30	2000.00	2055.43	0.00	2055.63	39.20	4.57	686.17	319.45
	8.080	2005.00	0.00	0.00	2050.30	30000.00	2060.11	0.00	2060.54	39.52	8.22	6363.79	4772.21
	8.260	970.00	0.00	0.00	2056.90	300.00	2059.27	0.00	2059.41	56.68	3.05	101.36	39.85
	8.260	970.00	0.00	0.00	2056.90	1000.00	2060.12	0.00	2060.31	63.63	4.07	383.46	125.36
	8.260	970.00	0.00	0.00	2056.90	1500.00	2060.26	0.00	2060.54	91.39	5.11	465.84	156.91
	8.260	970.00	0.00	0.00	2056.90	2000.00	2060.50	0.00	2060.75	79.26	5.14	617.14	224.65
	8.260	970.00	0.00	0.00	2056.90	30000.00	2064.47	0.00	2064.94	58.12	8.55	5991.77	3935.16

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOK*S	VCH	AREA	.DIK
	8.500	1245.00	0.00	0.00	2063.00	300.00	2064.82	0.00	2064.85	34.61	1.35	222.20	50.99
	8.500	1245.00	0.00	0.00	2063.00	1000.00	2065.47	0.00	2065.53	29.65	2.03	516.45	183.65
	8.500	1245.00	0.00	0.00	2063.00	1500.00	2065.85	0.00	2065.93	25.07	2.22	729.85	299.58
	8.500	1245.00	0.00	0.00	2063.00	2000.00	2066.08	0.00	2066.17	27.40	2.53	869.92	382.07
	8.500	1245.00	0.00	0.00	2063.00	30000.00	2070.21	0.00	2070.62	37.06	6.04	6212.10	4927.74
	8.750	1325.00	0.00	0.00	2072.20	300.00	2073.47	0.00	2073.77	178.09	4.44	67.56	22.48
*	8.750	1325.00	0.00	0.00	2072.20	1000.00	2074.32	2074.32	2075.12	208.26	7.16	139.76	69.29
*	8.750	1325.00	0.00	0.00	2072.20	1500.00	2074.84	2074.84	2075.83	194.12	8.01	187.20	107.66
*	8.750	1325.00	0.00	0.00	2072.20	2000.00	2075.24	2075.24	2076.45	195.15	8.82	226.75	143.17
*	8.750	1325.00	0.00	0.00	2072.20	30000.00	2079.55	2079.55	2080.92	138.96	11.50	3359.76	2544.91

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	7.540	300.00	2034.47	0.00	0.00	0.00	42.00	0.00
	7.540	1000.00	2036.75	2.28	0.00	0.00	42.00	0.00
	7.540	1500.00	2037.83	1.08	0.00	0.00	250.65	0.00
	7.540	2000.00	2039.74	1.91	0.00	0.00	1177.62	0.00
*	7.540	30000.00	2041.45	1.71	0.00	1.71	1437.58	0.00
	7.580	300.00	2034.76	0.00	0.29	0.00	33.35	130.00
	7.580	1000.00	2037.59	2.83	0.84	0.00	509.84	130.00
	7.580	1500.00	2038.64	1.05	0.81	0.00	838.01	130.00
	7.580	2000.00	2039.86	1.22	0.12	0.00	1010.63	130.00
	7.580	30000.00	2043.37	3.51	1.92	0.00	1565.75	130.00
	7.720	300.00	2038.16	0.00	3.39	0.00	21.49	735.00
	7.720	1000.00	2040.96	2.80	3.37	0.00	39.33	735.00
*	7.720	1500.00	2041.51	0.56	2.88	0.00	72.45	735.00
*	7.720	2000.00	2042.52	1.00	2.66	0.00	114.14	735.00
*	7.720	30000.00	2047.83	5.31	4.46	0.00	1254.07	735.00
	8.080	300.00	2053.25	0.00	15.10	0.00	60.92	2005.00
	8.080	1000.00	2054.54	1.28	13.58	0.00	315.76	2005.00
	8.080	1500.00	2055.14	0.60	13.62	0.00	456.58	2005.00
	8.080	2000.00	2055.43	0.29	12.91	0.00	563.87	2005.00
	8.080	30000.00	2060.11	4.68	12.28	0.00	2837.46	2005.00
	8.260	300.00	2059.27	0.00	6.01	0.00	98.11	970.00
	8.260	1000.00	2060.12	0.85	5.58	0.00	586.64	970.00
	8.260	1500.00	2060.26	0.14	5.12	0.00	597.36	970.00
	8.260	2000.00	2060.50	0.24	5.07	0.00	616.95	970.00
	8.260	30000.00	2064.47	3.96	4.36	0.00	3145.36	970.00
	8.500	300.00	2064.82	0.00	5.56	0.00	385.97	1245.00
	8.500	1000.00	2065.47	0.64	5.35	0.00	514.52	1245.00
	8.500	1500.00	2065.85	0.39	5.59	0.00	590.48	1245.00
	8.500	2000.00	2066.08	0.23	5.58	0.00	635.43	1245.00
	8.500	30000.00	2070.21	4.13	5.75	0.00	1787.80	1245.00
	8.750	300.00	2073.47	0.00	8.64	0.00	79.09	1325.00
*	8.750	1000.00	2074.32	0.86	8.86	0.00	89.47	1325.00
*	8.750	1500.00	2074.84	0.51	8.98	0.00	95.68	1325.00
*	8.750	2000.00	2075.24	0.40	9.16	0.00	100.57	1325.00
*	8.750	30000.00	2079.55	4.31	9.34	0.00	1289.66	1325.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=    7.540  PROFILE= 5  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    7.720  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    7.720  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    7.720  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    7.720  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    7.720  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    7.720  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    7.720  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    7.720  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    7.720  PROFILE= 5  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    8.750  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.750  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.750  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.750  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.750  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    8.750  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.750  PROFILE= 4  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    8.750  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    8.750  PROFILE= 5  MINIMUM SPECIFIC ENERGY
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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  53,51,52,53,54,55
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EOF..

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SF
TN          CAREY AVENUE LOE BREAKOUT
NS      6    8.911     9.06     8.27     .050    .0025
NG      0  1837.8       200  1837.8      280  1838.0       420  1840.0       530  1842.0
NG    810  1842.9
EE
C
C       24
C    8.19  START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
C    8.19  CL = 8980
C    8.27  LAKE MEAD BLVD BRIDGE
C    8.27  CL = 9050
C    8.31  CL = 9080
C   8.311  Effective flow width restricted to ridge (LOB) and road (ROP)
C   8.311  with ET card and discharges adjusted based on flow distribution
C    8.61  CL = 8010
C    8.85  CL = 7090
C    8.90  CAREY AVE BRIDGE
C    8.90  CL = 10000
C    8.91  CL = 10000
C   8.911  Split flow option used to compute left overbank breakouts.
C   8.911  Right overbank effective flow width restricted to 1:1 expansion
C   8.911  and discharges adjusted using flow distribution.
C    9.06  CL = 7310
C    9.30  CL = 7270
C    9.41  LAS VEGAS BLVD BRIDGE
C    9.41  CL = 5430
C    9.43  CL = 5050
C    9.47  Effective flow width restricted to 1:1 expansion from upstream
C    9.47  channel. Discharges adjusted using flow distribution.  Also applies
C    9.47  to bridge sections.
C    9.47  CL = 7740
T1          CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3          LAS VEGAS WASH - LAKE MEAD BLVD TO LAS VEGAS BLVD  - 25-YEAR
J1                    2                  0.009                                1818.
J2      -1                  -1                                                        15
QT      4.      6400    13000    24000    84000
NC                                 0.1      0.3
NH      6       .040     3800     .060     7800     .050     8941     .030     9014     .050
NH   9204       0.14    12020
X1   8.19         37     8941     9014
X3     10
GR1823.0          300  1817.0     1200  1816.0     2500  1820.0     3800  1818.0     4580
GR1819.0         5810  1816.0     7030  1320.0     7800  1820.0     8000  1820.0     8000
GR1819.2         8000  1819.6     8169  1819.4     8408  1820.1     8794  1820.5     8849
GR1821.5         8875  1820.3     8921  1822.6     8927  1823.9     8941  1812.5     8952
GR1810.6         8975  1810.6     8988  1813.2     9001  1814.1     9010  1823.9     9014
GR1820.9         9040  1823.5     9062  1826.7     9084  1826.3     9115  1820.8     9150
GR1819.5         9163  1821.5     9204  1322.0     9255  1822.0    10370  1823.0    10700
GR1824.0        11220  1824.0    12020
QT      4        6260
NH      5       .040     4430     .060     9006     .025     9094     .030     9540     0.14
NH612500
X1   8.27         26     9006.    9094.     350      300      330
X3     10                                                  1825.0   1825.0
X4      3    1821.0     8000  1823.0     8650  1823.0     8850
GR1824.0          600  1820.0     1300  1819.0     2400  1820.0     3200  1824.0     4000
GR1822.0         4430  1819.5     5200  1321.0     5850  1819.5     6770  1819.5     7400
GR 1824.         9000.    1824.    9006.  1814.0     9018.  1813.7    9050.  1814.0    9082.
GR 1824.         9094.    1824.    9100.  1824.5     9290  1824.5     9540  1824.5    10000
GR1824.0        10230  1823.5    10620  1823.5    10950  1824.0    11200  1825.0    11900
GR1826.0        12500
NC                                 0.3      0.5
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NH      5     .040     4430     .060     9006     .015     9095     .030     9540     0.14
NH  12500
X1  8.271       51     9017.    9095.       5        5        5
K3     10                                                      1825.0   1825.0
K4      3  1321.0     8000  1823.0     8650  1823.0     8850
BT     -4     9006  1824.0              9017  1824.1  1821.7     9025  1823.2  1821.7
BT            9095  1823.2  1821.7
GR1824.0       600  1820.0     1300  1819.0     2400  1820.0     3200  1824.0     4000
GR1822.0      4430  1819.5     5200  1821.0     5850  1819.5     6770  1819.5     7400
GR 1824.      9000.    1824.    9006.  1824.0     9017  1813.7  9017.0  1813.7     9025
GR1821.7   9028.3  1813.7  9028.3  1813.7  9034.3  1821.7  9034.3  1821.7  9037.6
GR1813.7   9037.6  1813.7  9043.6  1821.7  9043.6  1821.7  9047.2  1813.7  9047.2
GR1813.7   9057.2  1821.7  9057.2  1821.7     9060  1813.7     9060  1813.7     9070
GR1821.7      9070  1921.7     9073  1313.7     9073  1813.7     9083  1821.7     9083
GR1821.7   9086.6  1813.7  9086.6  1813.7  9095.0  1823.2     9095  1823.2     9095
GR 1824.      9096.    1824.    9100.  1824.5     9290  1824.5     9540  1824.5    10000
GR1824.0     10280  1823.5    10620  1823.5    10950  1824.0    11200  1825.0    11900
GR1826.0     12500
ET              6.1                                8940     9140
NC    .055     0.14     .015      0.1      0.3
X1   8.31       48.    9040.    9116.     235.     235.     235.
X2
K3     10
K4      1  1824.0     8280
BT     -5     8940  1824.0              9040  1824.1  1822.0     9046  1823.2  1822.0
BT            9116.0  1824.1  1822.0     9120  1824.0
GR1826.5       800  1822.0     1200  1822.0     2400  1823.0     3200  1823.0     3200
GR1824.0      4000  1823.8     5850  1823.5     6050  1821.0     6770  1822.0     7800
GR 1826.      3900.    1826.    8940  1824.1     9040  1814.0  9040.0  1814.0     9046
GR1822.0      9046  1822.0  9051.3  1814.0  9051.3  1814.0  9055.3  1822.0  9055.3
GR1822.0   9060.6  1814.0  9060.6  1814.0  9064.6  1822.0  9064.6  1822.0  9070.2
GR1814.0   9070.2  1814.0  9078.2  1822.0  9078.2  1822.0  9083.0  1814.0     9083
GR1814.0      9091  1822.0     9091  1822.0     9096  1814.0     9096  1814.0     9104
GR1822.0      9104  1822.0  9109.6  1814.0  9109.6  1814.0  9116.0  1824.0     9116
GR1824.0      9120.    1826.    9140.    1824.    9148.  1823.6     9270  1824.2     9580
GR1824.5      9770  1826.0    10130  1826.0    11780
QT      4     6400
ET              6.1                                8900     9270
NC    .055     0.14     .025      0.3      0.5
X1  8.311       23.    9014.    9140.       5.       5.       5.
K3     10
K4      1  1324.0     8280
GR1826.5       800  1822.0     1200  1822.0     2400  1823.0     3200  1823.0     3200
GR1824.0      4000  1823.8     5850  1823.5     6050  1821.0     6770  1822.0     7800
GR 1826.      3900.    1826.    8940  1824.1    9014.  1814.5    9034.    1814.    9075.
GR1814.5      9120.    1824.    9140.    1824.    9148.  1823.6     9270  1824.2     9580
GR1824.5      9770  1826.0    10130  1826.0    11780
NC                      0.1      0.3
NH      7     .040     2020     .060     3700     0.16     5380     .040     7000     0.16
NH   7863     .025     8094     0.16    11520
X1   8.61       39.    7863.    8094.    1570.    1370.    1560.
K3     10
K4      3  1830.5     2900  1830.0     7400  1832.0     7700
GR1832.0          0  1830.0      250  1829.0     2020  1829.0     3700  1829.0     5380
GR1831.0       5970  1827.0     6250  1827.0     6730  1830.0     6880  1825.1     7000
GR1833.1   007741  1833.1  007741  1833.1  007741  1833.1  007741  1833.1  007741
GR1832.7   007754  1830.2  007793  1830.2  007836  1832.8  007853  1832.6  007923
GR1829.9   007952  1822.7  007970  1818.9  008025  1820.1  008039  1822.1  008062
GR1830.3   008077  1832.3  008094  1832.3  008135  1832.4  008173  1832.0     8180
GR1832.0      8710  1832.0     9160  1832.0     9230  1832.0    10070  1832.4    10360
GR1834.9     10730  1836.0    10900  1836.0    11250  1838.0    11520
NH      4     .040     1700     0.16     7007     .025     7188     0.16    11360
X1   8.85       49    7007.    7188.    1370.    1200.    1250.
K3     10                                                      1837.0
K4      1  1836.0     4180
GR1840.0          0  1837.0      250  1837.0     1700  1837.0     2550  1840.0     3730
GR1837.0      4900  1833.3  005000  1834.2  005102  1833.9  005248  1834.6  005315
GR1833.9   005362  1834.0  005458  1834.2  005626  1834.0  005773  1833.5  005856
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GR1833.7  005977  1834.6  006004  1834.8  006111  1835.7  006220  1837.7    6395
GR1837.7  006554  1838.1  006837  1838.8  006858  1839.4  006879  1837.9  006900
GR1837.2  006953  1837.0  006981  1837.6  007007  1834.4  007013  1833.0  007025
GR1827.3  007031  1825.1  007044  1824.4  007064  1824.4  007099  1826.2  007119
GR1825.9  007122  1833.5  007134  1835.6  007142  1837.7  007163  1837.8  007188
GR1837.8    7250  1838.0    7420  1839.0    8170  1835.5    8550  1835.7    9570
GR1838.0   10080  1840.0   10450  1842.0   10870  1844     11360
BT          4     6330
NC                          0.3     0.5
NH          6     .040      4500    0.16    9100    .080    9910    .025    10070   0.16
NH      11770     0.12      14040
K1   8.90          35        9910.   10070.  170.    360.    230.
K3      10                                                  1837.8  1838.0
K4       2  1840.0    2800  1836.5    6980
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1826.0    9950  1825.2    9955  1825.2   10020  1826.0   10025
GR1838.0   10070  1838.0   10270  1839.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13220  1842.0   13340  1843.0   13600  1844.0   13820  1846.0   14040
NH          6     .040      4500    0.16    9100    .080    9910    .015    10070   0.16
NH      11770     0.12      14040
K1  8.901         50        9950.   10019.  5.      5.      5.
K3      10                                                  1837.8  1838.0
K4       3  1840.0    2800  1836.5    6980  1838.0   10070
BT      -7    9890  1837.8          9910  1838.1                  9950  1838.5  1832.4
BT            9988  1838.7  1832.4  10019  1838.5  1832.4  10070  1838.2
BT           10270  1838.0
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1837.8    9950  1825.2    9950  1825.2    9959  1832.4    9559
GR1832.4    9954  1825.2    9964  1825.2    9974  1832.4    9974  1832.4    9979
GR1825.2    9979  1825.2    9989  1832.4    9989  1832.4    9994  1825.2    9994
GR1825.2   10004  1832.4   10004  1832.4   10009  1825.2   10009  1825.2   10019
GR1838.0   10019  1838.0   10270  1839.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13220  1842.0   13340  1843.0   13600  1844.0   13820  1846.0   14040
ET          6.1                                 9890    10430
NC                          0.1     0.3
NH          5     .040      4500    0.16    9100    .080    9910    .015    10070   0.16
NH      11770     0.12      14040
K1   8.91          50        9950.   10018.  70.     70.     70.
K2
K3      10                                                  1838.1  1838.1
K4       3  1840.0    2800  1836.5    6980  1838.0   10070
BT      -7    9890  1837.8          9910  1838.1                  9950  1838.5  1832.8
BT            9988  1838.7  1832.8  10018  1838.5  1832.8  10070  1838.2
BT           10270  1838.0
GR1843.0    2650  1837.5    3050  1837.5    4500  1837.5    5350  1841.0    6530
GR1839.0    7700  1837.0    7800  1836.0    7880  1836.0    8140  1835.9    8550
GR1835.2    8850  1836.5    9100  1837.6    9340  1837.5    9870  1837.8    9890
GR1837.8    9910  1837.8    9950  1825.6    9950  1825.6    9958  1832.8    9958
GR1832.8    9965  1825.6    9965  1825.6    9973  1832.8    9973  1832.8    9980
GR1825.6    9980  1825.6    9988  1832.8    9988  1832.8    9995  1825.6    9995
GR1825.6   10003  1832.8   10003  1832.8   10010  1825.6   10010  1825.6   10018
GR1838.0   10018  1838.0   10270  1839.1   10430  1838.0   10800  1837.    11000.
GR1837.0   11770  1838.0   11940  1838.0   12530  1838.0   12810  1840.0   12870
GR1840.0   13220  1842.0   13340  1843.0   13600  1844.0   13820  1846.0   14040
BT          4     5400
ET          6.1                                 9910    10900
NC                          0.3     0.5
NH          5     .040      4500    0.16    9100    .080    9910    .025    10070   0.16
NH      11770     0.12      14040
K1  8.911         35        9945.   10025.  5.      5.      5.
K3      10                                                  1838.1  1838.1
K4       1  1836.5    6980
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GR1840.0    2400   1837.5    5050   1837.5    4500   1837.5    5350   1841.0    6550
GR1839.0    7700   1837.0    7600   1836.0    7880   1836.0    8140   1835.9    8550
GR1835.2    8850   1836.5    9100   1837.6    9340   1837.5    9870   1837.8    9890
GR1837.8    9910   1828.0    9945   1825.6    9960   1825.6   10015   1828.0   10025
GR1838.0   10070   1838.0   10270   1839.1   10430   1838.0   10800   1837.    11000.
GR1837.0   11770   1838.0   11940   1838.0   12530   1838.0   12810   1840.0   12870
GR1840.0   13220   1842.0   13340   1843.0   13600   1844.0   13820   1846.0   14040
NH      5    .040    2000    0.16    7219    .025    7349    0.16    8360    .11
NH  10960
K1   9.06      32.   7219.   7349.    650.    930.    820.
K3     10                                            1842.3  1841.9
GR1845.0     500   1840.0    1400   1840.0    2000   1841.0    2800   1844.0    4450
GR1841.0    4800   1842.5    4950   1840.9    5000   1840.0    5350   1840.0    7110
GR1842.3 007136   1840.5 007219   1840.7 007238   1833.3 007255   1828.1 007301
GR1832.1 007328   1841.1 007349   1841.9 007361   1840.3 007375   1840.7 007406
GR1840.3 007451   1840.0    7670   1840.0    8360   1841.0    8750   1841.2    9140
GR1842.0    9180   1842.5    9450   1843.1    9900   1844.0   10200   1844.5   10510
GR1844.5   10700   1846.5   10960
NC                    0.1     0.3
NH      9    .040    4000    0.16    4850    .035    5750    0.13    6630    .030
NH   7212    .026    7447    .036    7900    .050    8700    0.16   10570
ET       6.1       6.1                     6990    7900
K1   9.30      39    7212    7447    1040    1070    1250
K3     10                                    7900  1846.0
K4      1  1850.0    1150
GR1852.0    1000   1845.0    1980   1844.0    3080   1845.0    4000   1846.0    4700
GR1848.0    4850   1846.8    4950   1846.0    5000   1846.0    5300   1845.7    5430
GR1846.2    5750   1843.5    6150   1847.0    6990   1847.0    7162   1847.1    7212
GR1837.8 007232   1835.2 007252   1834.4 007263   1837.8 007291   1842.1 007307
GR1841.4    7327   1840.4    7346   1840.9    7376   1841.2    7390   1840.2    7407
GR1843.8    7422   1844.7    7447   1843.4    7468   1845.5    7840   1846.0    7900
GR1845.5    7980   1845.5    8700   1845.5    9520   1846.0    9750   1848.0   10380
GR1850.0   10570   1850.0   10970   1850.6   11150   1852.0   11340
QT      4   3510
ET       6.1                     4900    6120
NC                    0.3     0.5
NH      8.    .080    2650    .040    4000    .060    4700    .037    5370    .025
NH   5496    .037    6120    .055    7650    .080    9010
X1   9.41      43    5370.   5496.    340.    330.    570.
X4      3  1850.0    -300  1850.0    1800  1848.5    3410
GR1853.0    -800   1849.0    2200   1849.0    2650   1849.9    2760   1849.0    2960
GR1848.5    4000   1848.0    4150   1847.9    4250   1847.9    4700   1848.5    4900
GR1847.9 005000   1847.9 005065   1847.9 005118   1847.8 005184   1847.9 005242
GR1847.9 005254   1847.9 005306   1848.0 005352   1847.9 005370   1847.8 005389
GR1840.5 005417   1840.5 005461   1845.4 005480   1846.5 005496   1847.4 005535
GR1847.5 005559   1847.2 005579   1847.4 005601   1847.5 005631   1848.9 005676
GR1846.1 005735   1848.3 005762   1846.1 005790   1847.2 005815   1848.2 005850
GR1849.5    6120   1848.3    6200   1849.0    6600   1849.0    7400   1849.0    7650
GR1850.0    8000   1852.0    8650   1854.0    9010
ET       6.1                     4900    6120
NH      8.    .080    2650    .040    4000    .060    4700    .037    5370    .015
NH   5496    .037    6120    .055    7650    .080    9010
X1  9.411      58   5391.   5499.      5.      5.       5
X4      1  1848.5    3410
BT    -15    2760   1849.9            3410  1849.0            4000  1848.9
BT           4250   1849.9            5065  1849.9            5184  1850.7
BT           5264   1851.3            5391  1851.4  1847.8    5459  1851.4  1847.8
BT           5559   1851.0            5760  1851.0            5950  1851.1
BT           6200   1850.1            7650  1850.1            8000  1850.0
GR1850.0    1800   1849.0    2200   1849.0    2650   1849.9    2750   1849.0    2960
GR1848.5    4000   1848.0    4150   1847.9    4250   1847.9    4700   1848.5    4900
GR1847.9 005000   1847.9 005065   1847.9 005118   1847.8 005184   1847.9 005242
GR1847.9 005254   1847.9 005306   1848.0 005352   1847.9 005370   1847.8 005391
GR1840.5    5391   1840.5    5401   1847.8    5401   1847.8    5404   1840.5    5404
GR1840.5    5415   1847.8    5415   1847.8    5418   1840.5    5418   1840.5    5429
GR1847.8    5429   1847.8    5434   1840.5    5434   1840.5    5445   1847.8    5445
GR1847.8    5448   1840.5    5448   1840.5    5459   1847.8    5459   1847.4    5535
GR1847.5 005559   1847.2 005579   1847.4 005601   1847.5 005631   1848.9 005676
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GR1846.1  005735  1848.3  005762  1846.1  005790  1847.2  005815  1848.2  005850
GR1849.5    6120  1848.3    6200  1849.0    6600  1849.0    7400  1849.0    7650
GR1850.0    8000  1852.0    8650  1854.0    9010
QT      4   6400
ET          6.1                           4470    5730
NC                      0.1     0.3
NH      5.   .090    2350    .035  4500.   .060   5000.    .015  5120.   .040
NH 8820.
K1   9.43      46    5020.   5087.    110.    110.    110.
K2
K3     10                                                1851.0  1851.0
K4      2  1850.0    5600  1850.0    5750
BT    -14    4400  1850.0          5000  1851.4            5020  1851.4  1849.1
BT           5087  1850.1  1849.1  5120  1851.0            5400  1851.8
BT           5500  1851.2          5600  1851.0            5750  1850.2
BT           6120  1850.0          7200  1850.1            7700  1850.6
BT           8290  1852.9          8820  1854.0
GR1850.0     1500  1849.0    1750  1849.0    2250  1849.0    2250  1849.0    2250
GR1850.0     2350  1850.0    2350  1850.0    2350  1849.5    2450  1849.5    3700
GR1849.5    4000.  1850.0    4400.  1850.    5000.  1849.1    5020  1841.8    5020
GR1841.8     5029  1849.1    5029  1849.1    5034  1841.8    5034  1841.8    5043
GR1849.1     5043  1849.1    5048  1841.8    5048  1841.8    5057  1849.1    5057
GR1849.1     5064  1841.8    5064  1841.8    5073  1849.1    5073  1849.1    5078
GR1841.8     5078  1841.8    5087  1849.1    5087  1849.1    5087  1850.0    5100
GR 1850.     5100.  1851.    5120.  1851.0    5400  1850.0    5500  1850.0    6120
GR1849.5     6200  1849.5    7200  1850.0    7700  1850.0    8050  1852.0    8290
GR1854.0     8820
ET          6.1                           4470    5730
NC                      0.3     0.5
NH      5.   .090    2350    .035  4500.   .060   5000.    .025  5100.   .040
NH 8820.
K1  9.431      26    5000.   5100.      5.      5.      5.
K3     10                                                1851.0  1851.0
GR1850.0     1500  1849.0    1750  1849.0    2250  1849.0    2250  1849.0    2250
GR1850.0     2350  1850.0    2350  1850.0    2350  1849.5    2450  1849.5    3700
GR1849.5    4000.  1850.0    4400.  1850.    5000.  1841.8    5040.  1841.8   5070.
GR 1850.     5100.  1851.    5120.  1851.0    5400  1850.0    5500  1850.0    6120
GR1849.5     6200  1849.5    7200  1850.0    7700  1850.0    8050  1852.0    8290
GR1854.0     8820
ET          6.1                           7280    8300
NH      6    .080    5000    .060   6575.   .035   7300.    .060   7655.   .027
NH 7845.     .060   11120
K1   9.47      88    7655    7845     185     185     185
K4      1  1842.3    7728
GR1852.0     4200  1851.0    4450  1850.0    4900  1850.0    4900  1850.0    4900
GR1851.6  005000  1851.4  005059  1850.7  005063  1850.9  005115  1850.4  005147
GR1850.9  005182  1851.0  005217  1850.4  005256  1850.8  005304  1849.7  005380
GR1850.1  005446  1850.4  005631  1850.4  005694  1850.1  005790  1849.9  005861
GR1849.9  005900  1849.6  005925  1849.3  005941  1849.7  005998  1849.9  006040
GR1849.9  006037  1849.2  006171  1849.2  006214  1848.9  006298  1849.2  006340
GR1849.5  006412  1849.5  006461  1849.6  006511  1849.2  006568  1848.4  006675
GR1850.3  006715  1849.7  006735  1850.4  006804  1850.4  006862  1849.6  006928
GR1849.9  006991  1849.9  007041  1849.9  007097  1850.4  007142  1851.2  007181
GR1850.7  007250  1850.1  007276  1850.3  007300  1850.7  007318  1851.2  007345
GR1851.0  007337  1851.4  007425  1851.4  007484  1851.8  007524  1850.8  007556
GR1850.7  007591  1851.2  007622  1852.0  007655  1851.3  007680  1844.5  007702
GR1842.3  007758  1844.6  007777  1843.8  007783  1850.4  007803  1850.7  007845
GR1850.4  007893  1850.3  007955  1850.4  007996  1850.3  008065  1850.1  008129
GR1849.3  008190  1850.1  008239  1849.7  008253  1849.2  008324  1850.0  008364
GR1851.4  008384  1849.7  008418  1849.9  008453  1849.9  008512  1850.8  008521
GR1848.3    9000  1848.3    9500  1848.7   10300  1850.0   10550  1850.0   10700
GR1852.0   11120  1854.0   11320  1854.8   11630
EJ


ER
EOF..
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1*************************************************
 *  LATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 •  RUN DATE  25-JAN-88 TIME   12:33:19          •
 *************************************************
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*****************************************
•  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
•  (916) 440-2105 (FTS) 448-2105
*****************************************
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X         X     X             X     X
X      X  X         X                   X     X
XXXXXXXX  XXXX      X           XXXXX    XXXXX
X      X  X         X
X      X  X         X     X             X
X      X  XXXXXXX   XXXXX               XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************


SPLIT FLOW BEING PERFORMED

SF

TN         CAREY AVENUE LOB BREAKOUT
NS      6   8.911     9.06     8.27     .050    .0025
NG      0  1837.8      200  1837.8      280  1838.0      420  1840.0      530  1842.0
NG    810  1842.9
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C
T1       CCRFCD/COE LAS VEGAS VALLEY OVERFLOW STUDY
T2       JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.  --   EGP
T3       LAS VEGAS WASH - LAKE MEAD BLVD TO LAS VEGAS BLVD  - 25-YEAR
J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        3.        0.  0.009000      0.00      0.0       0.  1818.000     0.000
J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     -1.000      .00     -1.000      1.00      0.000     0.000     0.000     0.000     0.000     15.000
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GT	4.000	6400.000	13000.000	24000.000	84000.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.140	3800.000	0.060	7800.000	0.050	8941.000	0.030	9014.000	0.050
NH	9204.000	0.140	12020.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE									
	CL = 8980									
X1	8.190	37.000	8941.500	9014.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1823.000	300.000	1817.000	1200.000	1816.000	2500.000	1820.000	3800.000	1818.000	4980.000
GR	1819.000	5810.000	1816.000	7030.000	1820.000	7800.000	1820.000	8000.000	1820.000	8000.000
GR	1819.200	8000.000	1819.600	8169.000	1819.400	8408.000	1820.100	8794.000	1820.500	8849.000
GR	1821.500	8875.000	1820.300	8921.000	1822.600	8927.000	1823.900	8941.000	1812.500	8952.000
GR	1810.600	8975.000	1813.500	8988.000	1813.200	9001.000	1814.100	9010.000	1823.900	9014.000
GR	1820.900	9040.000	1823.500	9062.000	1826.700	9084.000	1826.300	9115.000	1820.800	9150.000
GR	1819.500	9163.000	1821.500	9204.000	1822.000	9255.000	1822.000	10370.000	1823.000	10700.000
GR	1824.000	11221.000	1824.000	12020.000	0.000	0.000	0.000	0.000	0.000	0.000
GT	4.000	6260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.140	4430.000	0.060	9006.000	0.025	9094.000	0.030	9540.000	0.140
NH	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	LAKE MEAD BLVD BRIDGE									
	CL = 9050									
X1	8.270	26.000	9006.000	9094.000	250.000	300.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
GR	1824.000	600.000	1820.000	1300.000	1819.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9050.000	1814.000	9082.000
GR	1824.000	9094.000	1824.000	9100.000	1824.500	9290.000	1824.500	9540.000	1824.500	10000.000
GR	1824.000	10280.000	1823.500	10620.000	1823.500	10950.000	1824.000	11200.000	1825.000	11900.000
GR	1826.000	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.140	4430.000	0.060	9006.000	0.015	9095.000	0.030	9540.000	0.140
NH	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.271	51.000	9017.000	9095.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1825.000	1825.000	0.000
X4	3.000	1821.000	8000.000	1823.000	8650.000	1823.000	8850.000	0.000	0.000	0.000
BT	-4.000	9006.000	1824.000	0.000	9017.000	1824.100	1821.700	9025.000	1823.200	1821.700
BT	0.000	9095.000	1823.200	1821.700	0.000	0.000	0.000	0.000	0.000	0.000

GR	1824.000	600.000	1820.000	1300.000	1819.000	2400.000	1820.000	3200.000	1824.000	4000.000
GR	1822.000	4430.000	1819.500	5200.000	1821.000	5850.000	1819.500	6770.000	1819.500	7400.000
GR	1824.000	9000.000	1824.000	9006.000	1824.000	9017.000	1813.700	9017.000	1813.700	9025.000
GR	1821.700	9028.300	1813.700	9028.300	1813.700	9034.300	1821.700	9034.300	1821.700	9037.600
GR	1813.700	9037.600	1813.700	9043.600	1821.700	9043.600	1821.700	9047.200	1813.700	9047.200
GR	1813.700	9057.200	1821.700	9057.200	1821.700	9060.000	1813.700	9060.000	1813.700	9070.000
GR	1821.700	9070.000	1821.700	9073.000	1813.700	9073.000	1813.700	9083.000	1821.700	9083.000
GR	1821.700	9086.600	1813.700	9086.600	1813.700	9095.000	1823.200	9095.000	1823.200	9095.000
GR	1824.000	9096.000	1824.000	9100.000	1824.500	9290.000	1824.500	9540.000	1824.500	10000.000
GR	1824.000	10280.000	1823.500	10620.000	1823.500	10950.000	1824.000	11200.000	1825.000	11900.000
GR	1826.000	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8940.000	9140.000	0.000	0.000	0.000
NC	0.055	0.140	0.015	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CL = 9080									
X1	8.310	48.000	9040.000	9116.000	235.000	235.000	235.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-5.000	8940.000	1824.000	0.000	9040.000	1824.100	1822.000	9046.000	1823.200	1822.000
BT	0.000	9116.000	1824.100	1822.000	9120.000	1824.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9040.000	1814.000	9040.000	1814.000	9046.000

GR	1822.000	9046.000	1822.000	9051.300	1814.000	9051.300	1814.000	9055.300	1822.000	9055.300
GR	1822.000	9060.600	1814.000	9060.600	1814.000	9064.600	1822.000	9064.600	1822.000	9070.200
GR	1814.000	9070.200	1814.000	9078.200	1822.000	9078.200	1822.000	9083.000	1814.000	9083.000
GR	1814.000	9091.000	1822.000	9091.000	1822.000	9096.000	1814.000	9096.000	1814.000	9104.000
GR	1822.000	9104.000	1822.000	9109.600	1814.000	9109.600	1814.000	9116.000	1824.000	9116.000
GR	1824.000	9120.000	1826.000	9140.000	1824.000	9148.000	1823.600	9270.000	1824.200	9580.000
GR	1824.500	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
GT	4.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	8900.000	9270.000	0.000	0.000	0.000
NC	0.055	0.140	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	EFFECTIVE FLOW WIDTH RESTRICTED TO RIDGE (LCB) AND ROAD (RCB)									
	WITH ET CARD AND DISCHARGES ADJUSTED BASED ON FLOW DISTRIBUTION									
X1	8.311	23.000	9014.000	9140.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1824.000	8280.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1826.500	800.000	1822.000	1200.000	1822.000	2400.000	1823.000	3200.000	1823.000	3200.000
GR	1824.000	4000.000	1823.800	5850.000	1823.500	6050.000	1821.000	6770.000	1822.000	7800.000
GR	1826.000	8900.000	1826.000	8940.000	1824.100	9014.000	1814.500	9034.000	1814.000	9075.000
GR	1814.500	9120.000	1824.000	9140.000	1824.000	9148.000	1823.600	9270.000	1824.200	9580.000
GR	1824.500	9770.000	1826.000	10130.000	1826.000	11780.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.040	2020.000	0.060	3700.000	0.160	5380.000	0.040	7000.000	0.160
NH	7863.000	0.025	8094.000	0.160	11520.000	0.000	0.000	0.000	0.000	0.000

CL = 8010

X1	8.610	39.000	7863.000	8094.000	1570.000	1370.000	1560.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	3.000	1830.500	2900.000	1830.000	7400.000	1832.000	7700.000	0.000	0.000	0.000
GR	1832.000	0.000	1833.000	250.000	1829.000	2020.000	1829.000	3700.000	1829.000	5380.000
GR	1831.000	5970.000	1827.000	6250.000	1827.000	6730.000	1830.000	6880.000	1825.100	7000.000
GR	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000	1833.100	7741.000
GR	1832.700	7754.000	1830.200	7793.000	1830.200	7836.000	1832.800	7863.000	1832.600	7923.000
GR	1829.900	7952.000	1822.700	7970.000	1818.900	8025.000	1820.100	8039.000	1822.100	8062.000
GR	1830.300	8077.000	1832.300	8094.000	1832.300	8135.000	1832.400	8173.000	1832.000	8180.000
GR	1832.000	8710.000	1832.000	9180.000	1832.000	9230.000	1832.000	10070.000	1832.400	10360.000
GR	1834.000	10700.000	1836.000	10800.000	1836.000	11250.000	1838.000	11520.000	0.000	0.000
NH	4.000	0.040	1700.000	0.160	7007.000	0.025	7188.000	0.160	11360.000	0.000

CL = 7090

X1	8.850	49.000	7007.000	7188.000	1370.000	1200.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X4	1.000	1836.000	4180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1640.000	0.000	1837.000	250.000	1837.000	1700.000	1837.000	2550.000	1840.000	3730.000
GR	1837.000	4900.000	1833.300	5000.000	1834.200	5102.000	1833.900	5248.000	1834.600	5315.000
GR	1833.900	5362.000	1834.000	5458.000	1834.200	5626.000	1834.000	5773.000	1833.500	5856.000
GR	1833.700	5977.000	1834.600	6104.000	1834.800	6111.000	1833.700	6220.000	1837.700	6395.000
GR	1837.700	6554.000	1838.100	6827.000	1838.800	6858.000	1839.400	6879.000	1837.500	6900.000
GR	1837.200	6953.000	1837.000	6981.000	1837.600	7007.000	1834.400	7013.000	1833.000	7025.000
GR	1827.300	7031.000	1825.100	7044.000	1824.400	7064.000	1824.400	7099.000	1826.200	7119.000
GR	1825.900	7122.000	1833.500	7134.000	1835.600	7142.000	1837.700	7163.000	1837.800	7188.000
GR	1837.800	7250.000	1838.000	7420.000	1838.000	8170.000	1835.500	8550.000	1835.700	9570.000
GR	1838.000	10080.000	1840.000	10450.000	1842.000	10870.000	1844.000	11360.000	0.000	0.000
GT	4.000	6330.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	14040.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CAREY AVE BRIDGE									

CL = 10000

X1	8.900	35.000	9910.000	10070.000	170.000	360.000	230.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	2.000	1840.000	2800.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000

GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1826.000	9950.000	1825.200	9955.000	1825.200	10020.000	1826.000	10025.000
GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13220.000	1842.000	13340.000	1843.000	13600.000	1844.000	13820.000	1846.000	14040.000
NH	6.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	14040.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8.901	50.000	9950.000	10019.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1837.800	1838.000	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.400
BT	0.000	9988.000	1838.700	1832.400	10019.000	1838.500	1832.400	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.200	9950.000	1825.200	9959.000	1832.400	9959.000
GR	1832.400	9964.000	1825.200	9964.000	1825.200	9974.000	1832.400	9974.000	1832.400	9979.000
GR	1825.200	9979.000	1825.200	9989.000	1832.400	9989.000	1832.400	9994.000	1825.200	9994.000
GR	1825.200	10004.000	1832.400	10004.000	1832.400	10009.000	1825.200	10009.000	1825.200	10019.000
GR	1838.000	10019.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13220.000	1842.000	13340.000	1843.000	13600.000	1844.000	13820.000	1846.000	14040.000
ET	0.000	6.100	0.000	0.000	0.000	9890.000	10430.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.015	10070.000	0.160
NH	11770.000	0.120	14040.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 10000									
X1	8.910	50.000	9950.000	10018.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	3.000	1840.000	2800.000	1836.500	6980.000	1838.000	10070.000	0.000	0.000	0.000
BT	-7.000	9890.000	1837.800	0.000	9910.000	1838.100	0.000	9950.000	1838.500	1832.800
BT	0.000	9988.000	1838.700	1832.800	10018.000	1838.500	1832.800	10070.000	1838.200	0.000
BT	0.000	10270.000	1838.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1843.000	2650.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1837.800	9950.000	1825.600	9950.000	1825.600	9958.000	1832.800	9958.000
GR	1832.800	9965.000	1825.600	9965.000	1825.600	9973.000	1832.800	9973.000	1832.800	9980.000
GR	1825.600	9980.000	1825.600	9988.000	1832.800	9988.000	1832.800	9995.000	1825.600	9995.000
GR	1825.600	10003.000	1832.800	10003.000	1832.800	10010.000	1825.600	10010.000	1825.600	10018.000
GR	1838.000	10018.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13220.000	1842.000	13340.000	1843.000	13600.000	1844.000	13820.000	1846.000	14040.000
GT	4.000	6400.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	9910.000	10500.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	4500.000	0.160	9100.000	0.080	9910.000	0.025	10070.000	0.160
NH	11770.000	0.120	14040.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SPLIT FLOW OPTION USED TO COMPUTE LEFT OVERBANK BREAKOUTS.									
	RIGHT OVERBANK EFFECTIVE FLOW WIDTH RESTRICTED TO 1:1 EXPANSION									
	AND DISCHARGES ADJUSTED USING FLOW DISTRIBUTION.									
X1	8.911	35.000	9945.000	10025.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1838.100	1838.100	0.000
X4	1.000	1836.500	6980.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1840.000	2800.000	1837.500	3050.000	1837.500	4500.000	1837.500	5350.000	1841.000	6530.000
GR	1839.000	7700.000	1837.000	7800.000	1836.000	7880.000	1836.000	8140.000	1835.900	8550.000
GR	1835.200	8850.000	1836.500	9100.000	1837.600	9340.000	1837.500	9870.000	1837.800	9890.000
GR	1837.800	9910.000	1828.000	9945.000	1825.600	9960.000	1825.600	10015.000	1828.000	10025.000

GR	1838.000	10070.000	1838.000	10270.000	1839.100	10430.000	1838.000	10800.000	1837.000	11000.000
GR	1837.000	11770.000	1838.000	11940.000	1838.000	12530.000	1838.000	12810.000	1840.000	12870.000
GR	1840.000	13220.000	1842.000	13340.000	1843.000	13600.000	1844.000	13820.000	1846.000	14040.000

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NH	5.000	0.040	2000.000	0.160	7219.000	0.025	7349.000	0.160	8360.000	0.110
NH	10960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CL = 7310									
X1	9.000	32.000	7219.000	7349.000	650.000	830.000	820.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1842.300	1841.900	0.000
GR	1845.000	500.000	1840.000	1400.000	1840.000	2000.000	1841.000	2800.000	1844.000	4450.000
GR	1841.000	4800.000	1842.500	4850.000	1840.900	5000.000	1840.000	5350.000	1840.000	7110.000
GR	1842.300	7186.000	1840.500	7219.000	1840.700	7238.000	1832.300	7255.000	1828.100	7301.000
GR	1832.100	7328.000	1841.100	7349.000	1841.900	7361.000	1840.300	7375.000	1840.700	7406.000
GR	1840.300	7451.000	1840.000	7670.000	1840.000	8360.000	1841.000	8750.000	1841.200	9140.000
GR	1842.000	9180.000	1842.500	9450.000	1843.100	9900.000	1844.000	10200.000	1844.500	10510.000
GR	1844.500	10700.000	1846.500	10960.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.040	4000.000	0.160	4850.000	0.035	5750.000	0.130	6630.000	0.030
NH	7212.000	0.026	7447.000	0.036	7900.000	0.050	8700.000	0.160	10570.000	0.000
ET	0.000	6.100	6.100	0.000	0.000	6990.000	7500.000	0.000	0.000	0.000
	CL = 7270									
X1	9.300	39.000	7212.100	7447.000	1040.000	1070.000	1250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	7900.000	1846.000	0.000	0.000	0.000
X4	1.000	1850.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1852.000	1000.000	1845.000	1880.000	1844.000	3080.000	1845.000	4000.000	1846.000	4700.000
GR	1848.000	4850.000	1846.800	4950.000	1846.000	5000.000	1846.000	5300.000	1845.700	5430.000
GR	1846.200	5750.000	1843.500	6150.000	1847.000	6990.000	1847.000	7162.000	1847.100	7212.000
GR	1837.800	7232.000	1835.200	7252.000	1834.400	7263.000	1837.800	7291.000	1842.100	7307.000
GR	1841.400	7327.000	1840.400	7346.000	1840.900	7376.000	1841.200	7390.000	1840.200	7407.000
GR	1843.800	7422.000	1844.700	7447.000	1843.400	7468.000	1845.500	7840.000	1846.000	7900.000
GR	1845.500	7980.000	1845.500	8700.000	1845.500	9520.000	1846.000	9760.000	1848.000	10380.000
GR	1850.000	10570.000	1850.300	10970.000	1850.600	11150.000	1852.000	11340.000	0.000	0.000
GT	4.000	3510.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	4900.000	6120.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.025
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	9010.000	0.000	0.000	0.000
	LAS VEGAS BLVD BRIDGE									
	CL = 5430									
X1	9.410	43.000	5370.000	5496.000	840.000	330.000	570.000	0.000	0.000	0.000
X4	3.000	1850.000	-300.000	1850.000	1800.000	1848.500	3410.000	0.000	0.000	0.000
GR	1853.000	-800.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000
GR	1847.900	5264.000	1847.900	5306.000	1848.000	5352.000	1847.900	5370.000	1840.500	5389.000
GR	1840.500	5417.000	1840.500	5461.000	1845.400	5480.000	1846.500	5496.000	1847.400	5535.000
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1849.000	7650.000
GR	1850.000	8000.000	1852.000	8650.000	1854.000	9010.000	0.000	0.000	0.000	0.000

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ET	0.000	6.100	0.000	0.000	0.000	4900.000	6120.000	0.000	0.000	0.000
NH	8.000	0.080	2650.000	0.040	4000.000	0.060	4700.000	0.037	5370.000	0.015
NH	5496.000	0.037	6120.000	0.055	7650.000	0.080	9010.000	0.000	0.000	0.000
X1	9.411	58.000	5391.000	5459.000	5.000	5.000	5.000	0.000	0.000	0.000
X4	1.000	1848.500	3410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-15.000	2760.000	1849.900	0.000	3410.000	1849.900	0.000	4000.000	1848.900	0.000
BT	0.000	4250.000	1849.900	0.000	5065.000	1849.900	0.000	5184.000	1850.700	0.000

BT	0.000	5264.000	1851.300	0.000	5391.000	1851.400	1847.800	5459.000	1851.400	1847.800
BT	0.000	5559.000	1851.000	0.000	5760.000	1851.000	0.000	5950.000	1851.100	0.000
BT	0.000	6200.000	1850.100	0.000	7650.000	1850.100	0.000	8000.000	1850.000	0.000
GR	1850.000	1300.000	1849.000	2200.000	1849.000	2650.000	1849.900	2760.000	1849.000	2960.000
GR	1848.500	4000.000	1848.000	4150.000	1847.900	4250.000	1847.900	4700.000	1848.500	4900.000
GR	1847.900	5000.000	1847.900	5065.000	1847.900	5118.000	1847.800	5184.000	1847.900	5242.000
GR	1847.900	5264.000	1847.900	5306.000	1848.000	5352.000	1847.900	5370.000	1847.800	5391.000
GR	1848.500	5391.000	1848.500	5401.000	1847.800	5401.000	1847.800	5404.000	1848.500	5404.000
GR	1848.500	5415.000	1847.800	5415.000	1847.800	5418.000	1848.500	5418.000	1848.500	5429.000
GR	1847.800	5429.000	1847.800	5434.000	1848.500	5434.000	1848.500	5445.000	1847.800	5445.000
GR	1847.800	5448.000	1848.500	5448.000	1848.500	5459.000	1847.800	5459.000	1847.400	5535.000
GR	1847.500	5559.000	1847.200	5579.000	1847.400	5601.000	1847.500	5631.000	1848.900	5676.000
GR	1846.100	5735.000	1848.300	5762.000	1846.100	5790.000	1847.200	5815.000	1848.200	5950.000
GR	1849.500	6120.000	1848.300	6200.000	1849.000	6600.000	1849.000	7400.000	1849.000	7650.000
GR	1850.000	8000.000	1852.000	8650.000	1854.000	9010.000	0.000	0.000	0.000	0.000
GT	4.000	6400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	4470.000	5730.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.090	2350.000	0.035	4500.000	0.060	5000.000	0.015	5120.000	0.040
NH	8820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CL = 6150

X1	9.430	46.000	5020.000	5087.000	110.000	110.000	110.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1851.000	1851.000	0.000
X4	2.000	1850.000	5600.000	1850.000	5750.000	0.000	0.000	0.000	0.000	0.000
BT	-14.000	4400.000	1850.000	0.000	5000.000	1851.400	0.000	5020.000	1851.400	1849.100
BT	0.000	5087.000	1850.100	1849.100	5120.000	1851.000	0.000	5400.000	1851.800	0.000
BT	0.000	5500.000	1851.200	0.000	5600.000	1851.000	0.000	5750.000	1850.200	0.000
BT	0.000	6120.000	1850.000	0.000	7200.000	1850.100	0.000	7700.000	1850.600	0.000
BT	0.000	8290.000	1852.900	0.000	8820.000	1854.000	0.000	0.000	0.000	0.000
GR	1850.000	1500.000	1849.000	1750.000	1849.000	2250.000	1849.000	2250.000	1849.000	2250.000
GR	1850.000	2350.000	1850.000	2350.000	1850.000	2350.000	1849.500	2450.000	1849.500	3700.000
GR	1849.500	4000.000	1850.000	4400.000	1850.000	5000.000	1849.100	5020.000	1841.800	5020.000
GR	1841.800	5029.000	1849.100	5029.000	1849.100	5034.000	1841.800	5034.000	1841.800	5043.000
GR	1849.100	5043.000	1849.100	5048.000	1841.800	5048.000	1841.800	5057.000	1849.100	5057.000
GR	1849.100	5064.000	1841.800	5064.000	1841.800	5073.000	1849.100	5073.000	1849.100	5078.000
GR	1841.800	5078.000	1841.800	5087.000	1849.100	5087.000	1849.100	5087.000	1850.000	5100.000
GR	1850.000	5100.000	1851.000	5120.000	1851.000	5400.000	1850.000	5500.000	1850.000	6120.000
GR	1849.500	6200.000	1849.500	7200.000	1850.000	7700.000	1850.000	8050.000	1852.000	8290.000
GR	1854.000	8820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	6.100	0.000	0.000	0.000	4470.000	5730.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.090	2350.000	0.035	4500.000	0.060	5000.000	0.025	5100.000	0.040
NH	8820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.431	26.000	5300.000	5100.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1851.000	1851.000	0.000
GR	1850.000	1500.000	1849.000	1750.000	1849.000	2250.000	1849.000	2250.000	1849.000	2250.000
GR	1850.000	2350.000	1850.000	2350.000	1850.000	2350.000	1849.500	2450.000	1849.500	3700.000
GR	1849.500	4000.000	1850.000	4400.000	1850.000	5000.000	1841.800	5040.000	1841.800	5070.000
GR	1850.000	5100.000	1851.000	5120.000	1851.000	5400.000	1850.000	5500.000	1850.000	6120.000
GR	1849.500	6200.000	1849.500	7200.000	1850.000	7700.000	1850.000	8050.000	1852.000	8290.000
GR	1854.000	8820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	7280.000	8300.000	0.000	0.000	0.000
NH	6.000	0.080	5000.000	0.060	6675.000	0.035	7300.000	0.060	7655.000	0.027
NH	7845.000	0.060	11120.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

EFFECTIVE FLOW WIDTH RESTRICTED TO 1:1 EXPANSION FROM UPSTREAM CHANNEL. DISCHARGES ADJUSTED USING FLOW DISTRIBUTION. ALSO APPLIES TO BRIDGE SECTIONS.

CL = 7740

X1	9.476	88.000	7655.000	7845.000	185.000	185.000	185.000	0.000	0.000	0.000
X4	1.000	1842.300	7728.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	1852.000	4200.000	1851.000	4450.000	1850.000	4900.000	1850.000	4900.000	1850.000	4900.000
GR	1851.600	5000.000	1851.400	5059.000	1850.700	5063.000	1850.900	5115.000	1850.400	5147.000
GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.500	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7397.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8235.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1848.700	10300.000	1850.000	10550.000	1850.000	10700.000
GR	1852.000	11120.000	1854.000	11320.000	1854.800	11630.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	AWSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	ANCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 8.190
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1823.90 ELREA= 1823.90

START DOWNSTREAM OF LAKE MEAD BLVD BRIDGE
CL = 8980

8.19	8.26	1818.86	1818.86	1818.00	1822.19	3.33	0.00	0.00	1823.90
6400.	0.	6400.	0.	0.	437.	0.	0.	0.	1823.90
0.00	0.00	14.65	0.00	0.000	0.030	0.000	0.000	1810.60	8945.87
0.007957	0.	0.	0.	0	8	0	0.00	66.08	9011.94

0
FLOW DISTRIBUTION FOR SECNO= 8.19 CWSEL= 1818.86

STA= 8946. 9014.
PER Q= 100.
AREA= 436.8
VEL= 14.7

1490 NH CARD USED
*SECNO 8.270

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

LAKE MEAD BLVD BRIDGE
CL = 9050

8.27	8.30	1822.00	0.00	0.00	1823.70	1.70	1.34	0.16	1824.00
6260.	0.	6260.	0.	0.	598.	0.	4.	1.	1824.00
0.01	0.00	10.47	0.00	0.000	0.025	0.000	0.000	1813.70	9008.40
0.002444	350.	330.	300.	2	0	0	0.00	83.19	9091.60

0
FLOW DISTRIBUTION FOR SECNO= 8.27 CWSEL= 1822.00

STA= 9008. 9094.
PER G= 100.0
AREA= 598.1
VEL= 10.5

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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.271

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1823.20 MAX ELLC= 1821.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1825.00 ELREA= 1825.00

6.27	8.19	1821.89	0.00	0.00	1823.84	1.95	0.02	0.13	1824.00
5385.	0.	5385.	0.	0.	480.	0.	4.	1.	1823.20
0.01	0.00	11.21	0.00	0.300	0.015	0.000	0.000	1813.70	9017.00
0.004871	5.	5.	5.	2	0	0	-14.09	75.01	9095.00

0
FLOW DISTRIBUTION FOR SECNO= 8.27 C&SEL= 1821.89

STA= 9017. 9095.
PER G= 100.0
AREA= 480.4
VEL= 11.2

CCHV= 0.100 CEHV= 0.300
*SECNO 8.310

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 1823.20 MAX ELLC= 1822.00

3470 ENCROACHMENT STATIONS= 3940.0 9140.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1824.10 ELREA= 1824.00

CL = 9080

8.31	8.40	1822.40	1821.75	1822.80	1825.97	3.57	1.65	0.49	1824.10
5385.	0.	5385.	0.	0.	355.	0.	6.	1.	1824.00
0.01	0.00	15.16	0.00	0.055	0.015	0.149	0.000	1814.00	9040.00
0.010946	235.	235.	235.	4	9	0	-30.63	76.00	9116.00

0
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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
G	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1822.40

STA= 9040. 9116.
PER Q= 100.0
AREA= 355.2
VEL= 15.2

CCHV= 0.300 CEHV= 0.500
*SECNO 8.311
3280 CROSS SECTION 8.31 EXTENDED 8.74 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8900.0 9270.0 TYPE= 1 TARGET= 370.000
EFFECTIVE FLOW WIDTH RESTRICTED TO RIDGE (LCE) AND ROAD (REB)
WITH ET CARD AND DISCHARGES ADJUSTED BASED ON FLOW DISTRIBUTION

8.31	12.75	1826.75	0.00	1825.80	1826.38	0.23	0.00	1.00	1824.10
5525.	74.	5340.	111.	155.	1373.	381.	6.	1.	1824.00
0.01	0.48	3.89	0.29	0.055	0.025	0.140	0.000	1814.00	8900.00
0.000185	5.	5.	5.	3	0	0	0.00	370.00	9270.00

FLOW DISTRIBUTION FOR SECNO= 8.31 CWSEL= 1826.75

STA= 8900. 8934. 9014. 9140. 9146. 9270.
PER Q= 0.2 1.2 96.6 0.1 1.9
AREA= 29.7 125.3 1373.2 21.9 359.1
VEL= 0.3 0.5 3.9 0.3 0.3

CCHV= 0.100 CEHV= 0.300
1491 NH CARD USED
*SECNO 8.610

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1832.80 ELREA= 1832.30

CL = 8010

8.61	7.79	1826.69	0.00	1825.70	1828.04	1.35	0.72	0.34	1832.80
5525.	0.	5525.	0.	0.	592.	0.	50.	9.	1832.30
0.66	0.00	9.33	0.00	0.055	0.025	0.140	0.000	1818.50	7960.03
0.002693	1570.	1560.	1370.	4	0	0	0.00	110.36	8070.39

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTR	ELPIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.61 CWSEL= 1826.69

STA= 7960. 8094.
PER Q= 100.0
AREA= 592.2
VEL= 9.3

1490 NH CARD USED
*SECNO 8.850

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.60 ELREA= 1837.00

CL = 7.90

8.85	6.80	1830.40	0.00	1830.03	1832.19	1.80	4.02	0.13	1837.60
5525.	0.	5525.	0.	0.	513.	0.	66.	12.	1837.80
0.09	0.00	10.76	0.00	0.055	0.026	0.140	0.000	1824.40	7027.74
0.003910	1370.	1250.	1200.	3	0	0	0.00	101.36	7129.10

FLOW DISTRIBUTION FOR SECNO= 8.85 CWSEL= 1830.40

STA= 7028. 7188.
PER Q= 100.0
AREA= 513.3
VEL= 10.8

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 8.900

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

CAREY AVE BRIDGE
CL = 1000.

8.90	6.66	1831.86	0.00	1831.18	1833.07	1.21	0.70	0.18	1837.80
5455.	0.	5455.	0.	0.	617.	0.	69.	13.	1838.00
0.10	0.00	8.84	0.00	0.055	0.029	0.140	0.000	1825.23	9930.16
0.002449	170.	230.	360.	3	0	0	0.00	116.78	10046.95

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	ARCE	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CCHAR	TCRWIC	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.90 CWSEL= 1831.86

STA= 9930. 10070.
PER Q= 100.
AREA= 617.2
VEL= 8.8

1490 NH CARD USED
*SECNO 8.901

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.112 EGC= 1836.129 WSEL= 1832.186

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 1832.400 EGLC= 1836.112 EGC= 1836.117 WSEL= 1832.303

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 1837.80 MAX ELLC= 1832.40

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1837.80 ELREA= 1838.00

8.90	7.20	1832.40	1832.40	1831.65	1836.11	3.71	0.02	1.25	1837.80

```
     5455.        0.     5455.        0.        0.      353.        0.       69.       13.   1838.00
      0.10       0.00     15.46      0.00     0.050     0.015     0.131     0.000  1825.20   9950.00
 0.000921         5.        5.        5.        20        21         0      0.00     49.00  10019.00
0
 FLOW DISTRIBUTION FOR SECNO=       8.90          CWSEL=    1832.40

 STA=    9950.   10019.
  PER Q=   100.
    AREA=   352.8
     VEL=    15.5

 CCHV=   0.100 CEHV=   0.300
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    SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
    Q          GLOB      QCH       QROB      ALOB       ACH       ARCB      VOL      IBA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    ICRWID      ENDST

 1490 NH CARD USED
 *SECNO 8.910

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD= 1837.80 MAX ELLC= 1832.80

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=    9890.0   10431.0  TYPE=      1  TARGET=      540.000
          CL = 10000
      8.91     14.21  1839.81  1839.81  1832.80  1840.92      1.11      0.46      0.26  1837.80
      5455.      626.     3671.     1158.       98.      370.      619.       70.       13.  1838.00
       0.10      6.42      9.92      1.87     0.022     0.015     0.074     0.000  1825.60   9890.00
 0.000507         70.       70.       70.        20        10         0   -455.59    540.00  10430.00
0
 FLOW DISTRIBUTION FOR SECNO=       8.91          CWSEL=    1839.81

 STA=    9890.    9951.   10018.   10070.   10270.   10430.
   PER Q=     11.5     67.3     12.5      5.9      2.8
     AREA=     97.5    370.2     75.8    341.7    201.3
      VEL=      6.4      9.9      9.0      0.9      0.8

 CCHV=   0.300 CEHV=   0.500
 1490 NH CARD USED
 *SECNO 8.911

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS=    9910.0   10900.0  TYPE=      1  TARGET=      990.000
          SPLIT FLOW OPTION USED TO COMPUTE LEFT OVERBANK BREAKOUTS.
          RIGHT OVERBANK EFFECTIVE FLOW WIDTH RESTRICTED TO 1:1 EXPANSION
          AND DISCHARGES ADJUSTED USING FLOW DISTRIBUTION.
      8.91     15.51  1841.11     0.00  1837.39  1841.22      1.11      0.00      0.30  1828.00
      5525.      56.      3837.     1129.      288.     1211.     2684.       71.       14.  1828.00
       0.10      1.95      3.17     0.42     0.025     0.025     0.070     0.000  1825.60   9910.00
 0.000076         5.        5.        5.         2         0         0      0.00    990.00  10900.00
0
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 8.91 CWSEL= 1841.11

STA=	9910.	9945.	10025.	10070.	10270.	10430.	10800.	10900.
PER Q=	10.1	69.4	13.6	2.0	1.1	2.6	1.1	
AREA=	287.5	1211.2	365.2	623.0	410.4	949.0	336.5	
VEL=	1.9	3.2	2.1	0.2	0.2	0.2	0.2	

1490 NH CARD USED
*SECNO 9.060

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1842.30 ELREA= 1841.90

CL = 7310

9.06	12.86	1840.96	0.00	1837.20	1841.70	0.73	0.17	0.31	1840.50
6400.	0.	6400.	0.	0.	931.	0.	119.	24.	1841.10
0.14	0.00	6.87	0.00	0.098	0.025	0.140	0.000	1828.10	7219.00
0.001004	650.	320.	830.	4	0	0	0.00	129.68	7348.68

FLOW DISTRIBUTION FOR SECNO= 9.06 CWSEL= 1840.96

STA=	7219.	7349.
PER Q=	100.0	
AREA=	931.3	
VEL=	6.9	

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.300

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 0.0 7900.0 TYPE= 1 TARGET= 7895.999

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1847.10 ELREA= 1844.70

CL = 7270

9.30	8.54	1842.94	0.00	1843.24	1844.25	1.31	2.38	0.17	1847.10
6400.	0.	6400.	0.	0.	697.	0.	142.	29.	1844.70
0.17	0.00	9.18	0.00	0.043	0.026	0.053	0.000	1824.40	7220.95
0.004888	1040.	1250.	1070.	3	3	3	0.00	157.45	7418.40

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 9.30 CWSEL= 1842.94

STA=	7221.	7447.
PER Q=	100.0	
AREA=	696.3	
VEL=	9.2	

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.410

347 ENCROACHMENT STATIONS= 4900.0 6120.0 TYPE= 1 TARGET= 1220.000
LAS VEGAS BLVD BRIDGE
CL = 5430

9.41	5.08	1845.58	0.00	1845.26	1846.53	0.95	2.17	0.11	1847.90
3510.	.	3510.	0.	0.	445.	0.	149.	31.	1846.50
0.19	0.00	7.81	0.00	0.037	0.025	0.037	0.000	1840.50	5375.96
0.002592	840.	570.	330.	4	0	0	0.00	106.67	5482.62

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1845.58

STA= 5376. 5496.
PER Q= 100.0
AREA= 449.1
VEL= 7.8

1490 NH CARD USED
*SECNO 9.411

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 1848.90 MAX ELLC= 1847.80

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4900.0 6120.0 TYPE= 1 TARGET= 1220.000

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / ARCB / XNR / ICONT	HL / VOL / WTN / CORAR	CLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
9.41	5.06	1845.56	1845.56	1845.56	1848.12	2.56	0.02	0.81	1847.80
3510.	0.	3510.	0.	0.	273.	0.	149.	31.	1847.80
0.15	0.00	12.84	0.00	0.037	0.015	0.037	0.000	1840.50	5391.00
0.004665	5.	5.	5.	20	12	0	0.00	54.00	5459.00

FLOW DISTRIBUTION FOR SECNO= 9.41 CWSEL= 1845.56

STA= 5391. 5459.
PER Q= 100.0
AREA= 273.4
VEL= 12.8

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.430

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 1850.00 MAX ELLC= 1849.10

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 4470.0 5730.0 TYPE= 1 TARGET= 1260.000
CL = 5.50

9.43	10.31	1852.11	1852.11	1852.11	1852.77	0.66	0.41	0.19	1849.10
6400.	1273.	3564.	1563.	719.	420.	602.	152.	32.	1849.10
0.20	1.77	8.49	2.59	0.058	0.015	0.034	0.000	1841.80	4470.00
0.003296	110.	110.	110.	23	13	0	-982.81	1260.00	5730.00

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1852.11

STA=	4470.	5000.	5020.	5087.	5100.	5120.	5400.	5600.	5730.
PER Q=	18.9	1.0	55.7	3.2	3.1	5.3	4.9	8.0	
AREA=	764.6	14.2	419.7	23.8	27.7	199.1	162.2	189.5	
VEL=	1.7	4.5	8.5	8.5	7.1	1.7	1.9	2.7	

CCHV= 0.300 CEHV= 0.500

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SECNO DEPTH CWSEL CRIWS WSELK EG HV HL GLOSS BANK ELEV
Q GLOB QCH QROB ALOB ACH ARCB VOL TWA LEFT/RIGHT
TIME VLOB VCH VROB XNL XNCH XNR WTN ELMIN SSTA
SLOPE XLOBL XLCH XLOBR ITRIAL IDC ICONT CORAR TOPWID ENDST

1490 NH CARD USED
*SECNO 9.431

3470 ENCROACHMENT STATIONS= 4470.0 5730.0 TYPE= 1 TARGET= 1260.000

9.43	10.96	1852.76	0.00	1852.76	1852.92	0.16	0.00	0.15	1850.00
6400.	1289.	3478.	1633.	1460.	809.	1396.	152.	33.	1850.00
0.25	1.88	4.30	1.17	0.061	0.025	0.040	0.000	1841.80	4470.00
0.000331	5.	5.	5.	3	0	0	0.00	1260.00	5730.00

FLOW DISTRIBUTION FOR SECNO= 9.43 CWSEL= 1852.76

STA=	4470.	5000.	5100.	5120.	5400.	5600.	5730.
PER Q=	20.1	54.3	0.8	7.6	4.1	13.1	
AREA=	1460.3	808.6	45.1	491.6	225.6	633.7	
VEL=	0.9	4.3	1.2	1.0	1.2	1.3	

1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 7280.0 8300.0 TYPE= 1 TARGET= 1020.000
EFFECTIVE FLOW WIDTH RESTRICTED TO 1:1 EXPANSION FROM UPSTREAM
CHANNEL. DISCHARGES ADJUSTED USING FLOW DISTRIBUTION. ALSO APPLIES
TO BRIDGE SECTIONS.
CL = 7740

9.47	10.52	1852.82	0.00	1852.82	1853.00	0.18	0.07	0.01	1852.00
6400.	532.	4538.	1330.	629.	1137.	1239.	167.	37.	1850.70
0.22	0.85	3.99	1.07	0.056	0.027	0.060	0.000	1842.30	7280.00
0.000492	185.	185.	185.	2	0	0	.00	1020.00	8300.00

FLOW DISTRIBUTION FOR SECNO= 9.47 CWSEL= 1852.82

STA=	7280.	7387.	7591.	7655.	7845.	7955.	8065.	8190.	8253.	8300.
PER Q=	3.6	3.7	1.1	70.9	4.0	4.3	6.2	3.5	2.8	
AREA=	216.3	314.7	98.1	1137.0	261.6	271.4	357.7	193.6	154.3	
VEL=	1.0	0.7	0.7	4.0	1.0	1.0	1.1	1.2	1.2	

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IN CAREY AVENUE LOB BREAKOUT

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
1226.2	3.01	3.31	2.57	810.0	476.2

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
875.09	3685.64	123.25	875.09	3685.64	123.25	21	1841.107	1840.964	8.911	9.060

****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - LAKE ME

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
•	8.190	0.00	0.00	0.00	1810.60	6400.00	1818.86	1818.86	1822.19	79.57	14.65	436.83	717.46
	8.270	330.00	0.00	0.00	1813.70	6260.00	1822.00	0.00	1823.70	24.44	10.47	598.12	1266.31
	8.271	5.00	1823.20	1821.70	1813.70	5384.91	1821.89	0.00	1823.84	48.71	11.21	480.40	771.52
	8.310	235.00	1823.20	1822.00	1814.00	5384.91	1822.40	1821.75	1825.97	109.46	15.16	355.20	514.76
	8.311	5.00	0.00	0.00	1814.00	5524.91	1826.75	0.00	1826.98	1.85	3.89	1909.20	4059.05
	8.610	1560.00	0.00	0.00	1818.90	5524.91	1826.69	0.00	1828.04	26.93	9.33	592.18	1064.71
	8.850	1250.00	0.00	0.00	1824.40	5524.91	1830.40	0.00	1832.19	39.10	10.76	513.35	883.55
	8.900	230.00	0.00	0.00	1825.20	5454.91	1831.86	0.00	1833.07	24.49	8.84	617.18	1102.17
*	8.901	5.00	1837.80	1832.40	1825.20	5454.91	1832.40	1832.40	1836.11	92.01	15.46	352.80	568.67
*	8.910	70.00	1837.80	1832.80	1825.60	5454.91	1839.81	1839.81	1840.92	50.07	9.92	1086.57	770.95
	8.911	5.00	0.00	0.00	1825.60	5524.91	1841.11	0.00	1841.22	0.76	3.17	4182.81	6320.43
	9.060	820.00	0.00	0.00	1828.10	6400.00	1840.96	0.00	1841.70	10.04	6.87	931.34	2020.02
	9.300	1250.00	0.00	0.00	1834.40	6400.00	1842.94	0.00	1844.25	48.88	9.18	696.81	915.45
	9.410	570.00	0.00	0.00	1840.50	3510.00	1845.58	0.00	1846.53	25.92	7.81	449.14	689.36
*	9.411	5.00	1848.90	1847.80	1840.50	3510.00	1845.56	1845.56	1848.12	46.65	12.84	273.43	513.92
*	9.430	110.00	1850.00	1849.10	1841.80	6400.00	1852.11	1852.11	1852.77	32.96	8.49	1740.80	1114.72
	9.431	5.00	0.00	0.00	1841.80	6400.00	1852.76	0.00	1852.92	3.31	4.30	3664.76	3517.76

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	9.470	185.00	0.00	0.00	1842.30	6400.00	1852.82	0.00	1853.00	4.92	3.99	3004.77	2885.21

LAS VEGAS WASH - LAKE ME
SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	8.190	6400.00	1818.86	0.00	0.00	0.86	66.08	0.00
	8.270	6260.00	1822.00	0.00	3.14	0.00	83.19	330.00
	8.271	5384.91	1821.89	0.00	-0.11	0.00	75.01	5.00
	8.310	5384.91	1822.40	0.00	0.52	-0.40	76.00	235.00
	8.311	5524.91	1826.75	0.00	4.35	0.95	370.00	5.00
	8.610	5524.91	1826.69	0.00	-0.06	0.99	110.36	1560.00
	8.650	5524.91	1830.40	0.00	3.71	0.37	101.36	1250.00
	8.900	5454.91	1831.36	0.00	1.46	0.68	116.78	230.00
*	8.901	5454.91	1832.40	0.00	0.54	0.75	49.00	5.00
*	8.910	5454.91	1839.81	0.00	7.41	7.01	540.00	70.00
	8.911	5524.91	1841.11	0.00	1.30	3.72	990.00	5.00
	9.060	6400.00	1840.96	0.00	-0.14	3.76	129.68	520.00
	9.300	6400.00	1842.94	0.00	1.97	-0.31	197.45	1250.00
	9.410	3510.00	1845.58	0.00	2.64	0.32	106.67	570.00
*	9.411	3510.00	1845.56	0.00	-0.02	0.00	54.00	5.00
*	9.430	6400.00	1852.11	0.00	6.55	0.00	1260.00	110.00
	9.431	6400.00	1852.76	0.00	0.65	0.00	1260.00	5.00
	9.470	6400.00	1852.82	0.00	0.07	0.00	1020.00	185.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 8.190 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 8.901 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 8.901 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 8.901 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=     8.910  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     8.910  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     8.910  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.411  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.411  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.411  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     9.430  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     9.430  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     9.430  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

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  25-JAN-88     12:40:51                                                    PAGE    1


 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ***************************************************



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     13
   9.47        SECNO=River Mileage (above Advanced Wastewater Treatment Plant)
   9.47        Centerline Station at 7740
   9.59        Centerline Station at 8172
   9.75        Centerline Station at 10000
   9.88        Centerline Station at 3935
  10.01        **** Cheyenne Avenue ****
  10.01        Single Cross Section Normal Bridge
  10.01        Centerline Station at 10300
  10.01        2* Debris Load
  10.01        Future modelers: if low flow prevails, may convert to 5-arch NB
  10.15        Centerline Station at 10000
  10.26        Centerline Station at 10000
  10.34        Centerline Station at 10000
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR
J1              2                                                  1852.20
J2       1            -1
J3     150
QT       2   24000    84000
NC  0.040    0.100    0.035      0.1      0.3
ET         6.1                            4940     8521
NH       6    .080     5000     .060     5575.     .035     7300.     .060     7655.     .027
NH  7845.     .060    11250
X1    9.47       87     7655     7845
X3      10
X4       1   1842.3     7728
GR1852.0      4200   1851.0     4450   1850.0     4900   1850.0     4900   1850.0     4900
GR1851.6   005000    1851.4  005059    1850.7  005063    1850.9  005115    1850.4  005147
GR1850.9   005132    1851.0  005217    1850.4  005256    1850.8  005304    1849.7  005380
GR1850.1   005446    1850.4  005631    1850.4  005694    1850.1  005790    1849.9  005861
GR1849.9   005900    1849.6  005925    1849.3  005941    1849.7  005988    1849.9  006040
GR1849.9   006087    1849.2  006171    1849.2  006214    1848.9  006298    1849.2  006340
GR1849.5   006412    1849.5  006461    1849.6  006511    1849.2  006568    1848.4  006675
GR1850.3   006715    1849.7  006735    1850.4  006804    1850.4  006862    1849.6  006928
GR1849.9   006991    1849.9  007041    1849.9  007097    1850.4  007142    1851.2  007181
GR1850.7   007250    1850.1  007276    1850.3  007300    1850.7  007318    1851.2  007345
GR1851.0   007387    1851.4  007425    1851.4  007484    1851.8  007524    1850.8  007556
GR1850.7   007591    1851.2  007622    1852.0  007655    1851.3  007680    1844.5  007702
GR1842.3   007758    1844.6  007777    1843.8  007783    1850.4  007803    1850.7  007845
GR1850.4   007893    1850.3  007955    1850.4  007996    1850.3  008065    1850.1  008129
GR1849.3   008190    1850.1  008239    1849.7  008253    1849.2  008324    1850.0  008364
GR1851.4   008384    1849.7  008418    1849.9  008453    1849.9  008512    1850.8  008521
GR1848.3      9000   1848.3     9500   1849.2    10200   1850.0    10350   1852.0    10700
GR1854.0     11030   1856.0    11250
QT       2   23000    82000
NH       5    0.04     6215      0.13     7580      0.04     8108     0.035     8229      0.10
NH    9665
ET         7.1                                                  8291
X1    9.59       56     8108.     8229.      640       690       670
X2                                                                          15
GR1856.0      4780   1856.0     5140   1854.0     5400   1852.1     5585   1852.3     6215
GR1854.0      6270   1854.0     6385   1852.9     6465   1854.0     6510   1854.0     6845
GR1852.5      6915   1854.0     6995   1854.0     7580   1853.5     7705   1854.0     7740
GR1854.0   007835    1854.6  008009    1854.6  008078    1854.1  008108    1853.9  008119
GR1844.8   008145    1843.7  008155    1842.7  008168    1842.0  008172    1842.8  008178
GR1842.7   008187    1843.8  008200    1853.6  008229    1853.4  008260    1855.7  008291
GR1854.9   008307    1854.6  008363    1854.4  008403    1854.6  008448    1855.2  008469
GR1854.8   008505    1854.6  008538    1854.8  008555    1854.8  008588    1853.8  008714
GR1854.4   008739    1854.3  008826    1853.4  008867    1855.4  008899    1857.6  008925
GR1858.1   008950    1856.6  009015    1856.6  009037    1856.6  009061    1856.6  009072
GR1858.0      9345   1856.0     9425   1855.0     9540   1856.0     9565   1858.0     9615
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GR1860.0    9665
NH      6   0.04    8785    0.13    9540    0.035   9615    0.13    9940    0.035
NH  10115   0.13   11065
ET          7.1                                             10135
X1   9.75     41    9975   10025     810     890     810
GR1864.0    6460 1862.0     6625 1860.0     6695 1858.0     6960 1859.5     7600
GR1858.0    8070 1856.0     8120 1856.0     8215 1858.0     8275 1858.0     8785
GR1858.0    9355 1856.8     9415 1858.0     9440 1858.8     9505 1858.0     9540
GR1852.0    9562 1849.6     9575 1852.0     9587 1860.0     9615 1860.0     9745
GR1859.0    9805 1860.0     9830 1860.6     9900 1860.0     9940 1850.0     9975
GR1846.0   10000 1850.0    10025 1858.0    10050 1860.0    10115 1860.3    10135
GR1860.0   10155 1855.3    10200 1858.0    10365 1860.0    10395 1862.0    10520
GR1860.0   10780 1858.0    10815 1858.0    10945 1860.0    11040 1862.0    11050
GR1864.0   11065
NH      8   0.04    2572    0.13    3143    0.035   3232    0.13    3860    0.035
NH   3999   0.13    4420    0.05    4910    0.13    5275
X1   9.88     89    3860.   3999.    580.    680.    680.
X3                                  3999    1864.7
GR1883.4 000668 1870.6 000713 1863.3 000746 1863.0 000816 1862.5 000851
GR1862.8 000908 1863.3 000952 1863.2 000981 1863.2 001017 1863.4 001050
GR1862.8 001096 1862.6 001125 1862.1 001160 1862.9 001234 1863.7 001302
GR1863.4 001385 1863.8 001461 1861.9 001533 1861.1 001607 1861.5 001697
GR1861.5 001773 1862.6 001858 1862.8 001933 1862.5 002021 1863.2 002088
GR1861.9 002185 1862.8 002245 1862.9 002295 1863.3 002322 1863.3 002379
GR1863.4 002451 1862.8 002523 1861.2 002564 1862.7 002572 1862.4 002604
GR1862.3 002655 1862.7 002710 1862.1 002745 1861.2 002797 1861.5 002846
GR1864.0 002879 1862.4 002947 1860.0 002978 1860.2 003004 1859.9 003027
GR1860.7 003045 1862.4 003120 1862.0 003143 1856.5 003155 1852.8 003164
GR1852.2 003170 1852.3 003175 1863.6 003194 1863.9 003232 1863.9 003277
GR1862.3 003305 1862.2 003344 1863.9 003423 1863.9 003491 1862.7 003557
GR1862.2 003574 1862.2 003616 1861.7 003666 1861.6 003704 1861.6 003731
GR1861.2 003744 1862.9 003784 1863.4 003831 1862.6 003860 1859.7 003886
GR1851.0 003892 1849.2 003910 1847.3 003935 1852.5 003958 1861.9 003976
GR1864.7 003999 1864.0 004029 1863.1 004086 1861.4 004108 1861.7 004127
GR1860.9 004144 1863.9 004177 1866.2 004263 1866.0    4360 1864.4    4420
GR1866.0    4530 1867.2    4910 1868.0    5020 1870.0    5275
NC                  0.3     0.5
NH      9   0.037   5615    0.13    7040    0.037   8560    0.035   8660    0.040
NH   9520   0.13    9775    0.035  10064    0.040  10295    0.13   11145
X1  10.01     65    9944   10064     605     795     735
BT      4   9944 1868.9 1868.9 9958.2 1868.8 1866.8 10031.7 1868.8 1866.8
BT  10064 1868.9 1868.9
GR1878.0    5330 1876.0     5505 1876.0     5615 1876.0     5685 1874.0     5795
GR1872.0    6155 1870.0     6445 1868.0     6775 1866.0     6860 1865.8     6900
GR1866.0    6950 1867.2     6995 1866.0     7040 1866.0     7085 1868.0     7120
GR1869.1    7150 1868.0     7165 1866.0     7175 1864.0     7195 1864.0     7225
GR1866.0    7250 1868.0     7260 1870.0     7600 1870.0     7925 1868.0     8220
GR1867.6    8560 1860.0     8570 1858.0     8600 1858.1     8610 1868.0     8660
GR1869.8    8750 1868.0     9105 1867.5     9350 1868.0     9520 1868.0     9775
GR1867.5    9850 1868.9     9944 1866.8 9968.2 1859.6 9968.3 1859.6 9975.7
GR1866.8 9975.8 1866.8 9982.2 1859.6 9982.3 1859.6 9989.7 1866.8 9989.8
GR1866.8 9996.0 1859.6 9996.1 1859.6 10003.7 1866.8 10003.8 1866.8 10010.2
GR1859.6 10010.3 1859.6 10017.6 1866.8 10017.7 1866.8 10024.1 1859.6 10024.2
GR1859.6 10031.6 1866.8 10031.7 1868.9 10064 1870.0 10295 1870.0 10575
GR1872.0 10605 1874.0 10625 1874.0 10965 1876.0 11135 1878.0 11145
NH      5   0.037   8670    0.10    9465    0.040   9940    0.035  10050    0.040
NH  10590
X1  10.15     49    9940   10050     845     535     690
GR1878.0    6160 1876.0     6400 1874.0     6420 1874.0     6610 1872.0     6705
GR1870.0    6900 1868.0     7000 1868.0     7360 1870.0     7480 1872.0     7610
GR1871.7    7910 1870.0     8075 1850.0     8100 1860.0     8110 1870.0     8145
GR1872.0    8165 1872.0     8240 1874.0     8460 1874.0     8570 1872.0     8605
GR1874.0    8670 1874.2     8860 1874.0     9015 1872.2     9085 1874.0     9135
GR1874.0    9325 1872.0     9360 1872.0     9465 1874.0     9530 1874.3     9605
GR1874.0    9695 1872.0     9810 1870.0     9820 1870.0     9835 1872.0     9850
GR1874.0    9940 1872.0     9960 1864.0     9990 1864.0    10005 1866.0    10015
GR1872.0   10040 1874.0    10050 1876.0    10160 1876.0    10185 1874.0    10215
GR1874.0   10295 1876.0    10340 1876.0    10530 1878.0    10590
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NC 0.042    0.037    0.035      0.1       0.3
ET              7.1                                  7275
K1 10.26         58      9965    10380       585       540       585
GR1884.0       6005   1882.0     6345  1880.0     6475  1878.0     6540  1876.0     6580
GR1874.0       6650   1872.3     6760  1872.0     6865  1872.0     6915  1872.4     7095
GR1872.0       7230   1872.0     7255  1878.0     7275  1876.3     7345  1876.0     7430
GR1876.0       7530   1870.0     7550  1868.0     7565  1870.0     7580  1876.0     7615
GR1874.0       7745   1872.0     7755  1872.0     7785  1874.0     7795  1876.0     7910
GR1877.8       7865   1876.0     8020  1876.0     8055  1878.0     8130  1878.0     8265
GR1879.8       8550   1878.0     8870  1876.0     8880  1878.0     8895  1878.0     8985
GR1879.5       9050   1878.0     9240  1876.4     9260  1878.0     9270  1878.0     9540
GR1880.0       9550   1880.0     9650  1879.0     9725  1876.8     9865  1876.0     9965
GR1868.0       9995   1867.7    10000  1868.0    10005  1870.0    10015  1870.0    10060
GR1876.0      10080   1878.0    10135  1878.0    10330  1880.0    10445  1882.0    10550
GR1884.0      10640   1884.0    10900  1886.0    10995
NH      5      0.04      6660      0.10      8790   0.042      9965   0.035     10055   0.037
NH 10835
ET              7.1       9.1                                  7900                6505
K1 10.34         53      9965    10055       450       420       450
K2                                                                                    15
GR1888.0       6015   1886.0     6025  1884.0     6075  1882.0     6295  1880.0     6315
GR1878.9       6420   1880.0     6480  1883.0     6505  1880.0     6515  1876.0     6535
GR1876.0       6545   1882.0     6560  1884.0     6660  1886.0     6925  1884.0     7025
GR1884.0       7110   1886.0     7210  1886.0     7320  1884.0     7380  1884.0     7445
GR1882.0       7460   1881.3     7480  1882.0     7505  1884.0     7670  1882.0     7685
GR1882.0       7775   1884.0     7805  1884.2     7900  1884.0     8035  1882.7     8100
GR1884.0       8170   1884.3     8215  1884.0     8270  1882.0     8390  1881.6     8450
GR1882.0       8510   1882.0     8600  1882.0     8790  1881.6     8875  1882.0     8975
GR1882.0       9185   1881.6     9635  1882.0     9775  1882.0     9965  1872.0     9995
GR1872.0      10030   1880.0    10055  1882.0    10190  1882.0    10310  1884.0    10350
GR1884.8      10675   1886.0    10810  1888.0    10835
EJ
T1          CORFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR
J1                3                                                        1853.37
J2     15                -1

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EOF..
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C                                                
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GR1854.8	008505	1854.6	008538	1854.3	008555	1854.8	008588	1853.8	008714
GR1854.4	008739	1854.3	008826	1853.4	008867	1855.4	008899	1857.6	008925
GR1858.1	008950	1856.6	009015	1856.6	009037	1856.6	009061	1856.6	009072
GR1858.0	9345	1856.0	9425	1855.0	9540	1856.0	9565	1858.0	9615
GR1860.0	9665								
QT 1	5400								
NH 6	0.04	8785	0.13	9540	0.035	9615	0.13	9940	0.035
NH 10115	0.13	11065							
X1 9.75	41	9975	10025	810	890	810			
X3			9900	1860.6	10135	1860.3			
GR1864.0	6460	1862.0	6625	1860.0	6695	1858.0	6860	1859.5	7600
GR1858.0	8070	1856.0	8120	1856.0	8215	1858.0	8275	1858.0	8785
GR1858.0	9355	1856.8	9415	1858.0	9440	1858.8	9505	1858.0	9540
GR1852.0	9562	1849.6	9575	1852.0	9587	1860.0	9615	1860.0	9745
GR1859.0	9805	1860.0	9830	1860.6	9900	1860.0	9940	1850.0	9975
GR1846.0	10000	1850.0	10025	1858.0	10050	1860.0	10115	1860.3	10135
GR1860.0	10155	1855.3	10200	1858.0	10365	1860.0	10395	1862.0	10520
GR1860.0	10780	1858.0	10815	1858.0	10945	1860.0	11040	1862.0	11050
GR1864.0	11065								
NH 8	0.04	2572	0.13	3143	0.035	3232	0.13	3860	0.035
NH 3999	0.13	4420	0.05	4910	0.13	5275			
X1 9.88	89	3860.	3999.	680.	680.	680.			
X3			3831	1863.4	3999	1864.7			
GR1883.4	000668	1870.6	000713	1863.0	000746	1863.0	000816	1862.5	000851
GR1862.8	000908	1863.3	000952	1863.2	000981	1863.2	001017	1863.4	001050
GR1862.8	001096	1862.6	001125	1862.1	001160	1862.9	001234	1863.7	001302
GR1863.4	001385	1863.8	001461	1851.9	001533	1861.1	001607	1861.5	001697
GR1861.5	001773	1862.6	001858	1862.8	001933	1862.5	002021	1863.2	002088
GR1861.9	002185	1862.8	002245	1862.9	002295	1863.3	002322	1863.3	002379
GR1863.4	002451	1862.8	002523	1861.2	002564	1862.7	002572	1862.4	002604
GR1862.3	002655	1862.7	002710	1852.1	002745	1861.2	002797	1861.5	002846
GR1864.0	002879	1862.4	002947	1860.0	002978	1860.2	003004	1859.9	003027
GR1860.7	003045	1862.4	003120	1862.0	003143	1856.5	003155	1852.8	003164
GR1852.2	003170	1852.3	003175	1863.6	003194	1863.9	003232	1863.9	003277
GR1862.3	003305	1862.2	003344	1863.9	003423	1863.9	003491	1862.7	003557
GR1862.2	003574	1862.2	003616	1851.7	003666	1861.6	003704	1861.6	003731
GR1861.2	003744	1862.9	003784	1863.4	003831	1862.6	003860	1859.7	003886
GR1851.0	003892	1849.2	003910	1847.3	003935	1852.5	003958	1861.9	003976
GR1864.7	003999	1864.0	004029	1863.1	004086	1861.4	004108	1861.7	004127
GR1860.9	004144	1863.9	004177	1856.2	004263	1866.0	4360	1864.4	4420
GR1866.0	4530	1867.2	4910	1868.0	5020	1870.0	5275		
NC			0.3	0.5					
NH 9	0.037	5615	0.13	7040	0.037	8560	0.035	8660	0.040
NH 9520	0.13	9775	0.035	10064	0.040	10295	0.13	11145	
ET	7.1					9944	10150		
X1 10.01	65	9944	10064	605	795	735			
BT 4	9944	1868.9	1868.9	9958.2	1868.8	1866.8	10031.7	1868.8	1866.8
BT 10064	1868.9	1868.9							
GR1878.0	5330	1876.0	5505	1876.0	5615	1876.0	5685	1874.0	5795
GR1872.0	6155	1870.0	6445	1868.0	6775	1866.0	6860	1865.8	6900
GR1866.0	6950	1867.2	6995	1856.0	7040	1866.0	7085	1868.0	7120
GR1869.1	7150	1868.0	7165	1856.0	7175	1864.0	7195	1864.0	7225
GR1866.0	7250	1868.0	7260	1870.0	7600	1870.0	7925	1868.0	8220
GR1867.6	8560	1860.0	8570	1858.0	8600	1858.1	8610	1868.0	8660
GR1869.8	8750	1868.0	9105	1867.5	9350	1868.0	9520	1868.0	9775
GR1867.5	9850	1868.9	9944	1866.8	9968.2	1859.6	9968.3	1859.6	9975.7
GR1866.8	9975.8	1866.8	9982.2	1859.6	9982.3	1859.6	9989.7	1866.8	9989.8
GR1866.8	9996.0	1859.6	9996.1	1859.6	10003.7	1866.8	10003.8	1866.8	10010.2
GR1859.6	10010.3	1859.6	10017.6	1866.8	10017.7	1866.8	10024.1	1859.6	10024.2
GR1859.6	10031.6	1866.8	10031.7	1868.3	10064	1870.0	10295	1870.0	10575
GR1872.0	10605	1874.0	10625	1874.0	10965	1876.0	11135	1878.0	11145
NH 5	0.037	8670	0.10	9465	0.040	9940	0.035	10050	0.040
NH 10590									
QT 1	6200								
ET	7.1					9685	10160		
X1 10.15	49	9940	10050	845	535	690			
GR1878.0	6160	1876.0	6400	1874.0	6420	1874.0	6610	1872.0	6705
GR1870.0	6900	1868.0	7000	1858.0	7360	1870.0	7480	1872.0	7610

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GR1871.7     7910  1870.0     9075  1850.0     8100  1860.0     8110  1870.0     8145
GR1872.0     8165  1872.0     8240  1874.0     8460  1874.0     8570  1872.0     8605
GR1874.0     8670  1874.2     8960  1874.0     9015  1872.2     9085  1874.0     9135
GR1874.0     9325  1872.0     9360  1872.0     9465  1874.0     9530  1874.3     9605
GR1874.0     9695  1872.0     9810  1870.0     9820  1870.0     9835  1872.0     9850
GR1874.0     9940  1872.0     9960  1864.0     9990  1864.0    10005  1866.0    10015
GR1872.0    10040  1874.0    10050  1876.0    10160  1876.0    10185  1874.0    10215
GR1874.0    10295  1876.0    10340  1876.0    10530  1878.0    10590
MC 0.042    0.037   0.035      0.1      0.3
QT      1    5300
ET             7.1                                  9560
K1 10.26        58     9965    10080      585       540       585
GR1884.0     6015  1882.0     6345  1880.0     6475  1878.0     6540  1876.0     6580
GR1874.0     6660  1872.3     6760  1872.0     6865  1872.0     6915  1872.4     7095
GR1872.0     7230  1872.0     7255  1878.0     7275  1876.3     7345  1876.0     7430
GR1876.0     7530  1870.0     7550  1868.0     7565  1870.0     7580  1876.0     7615
GR1874.0     7745  1872.0     7755  1872.0     7785  1874.0     7795  1876.0     7810
GR1877.8     7865  1876.0     8020  1876.0     8055  1878.0     8130  1878.0     8265
GR1879.8     8550  1878.0     8870  1876.0     8880  1878.0     8835  1878.0     8985
GR1879.5     9050  1878.0     9240  1876.4     9260  1878.0     9270  1878.0     9540
GR1880.0     9560  1880.0     9650  1878.0     9725  1876.8     9865  1876.0     9965
GR1868.0     9995  1867.7    10000  1868.0    10005  1870.0    10015  1870.0    10060
GR1876.0    10080  1878.0    10135  1878.0    10330  1880.0    10445  1882.0    10550
GR1884.0    10640  1884.0    10900  1886.0    10995
NH      5    0.04     6660     0.10     8790   0.042      9965   0.035     10055   0.037
NH 10835
ET             7.1                                  9965
K1 10.34        53     9965    10055      450       420       450
K2                                                                              15
GR1888.0     6015  1886.0     6025  1884.0     6075  1882.0     6295  1880.0     6315
GR1878.9     6420  1880.0     6480  1883.0     6505  1880.0     6515  1876.0     6535
GR1876.0     6545  1882.0     6560  1884.0     6660  1886.0     6925  1884.0     7025
GR1884.0     7110  1886.0     7210  1886.0     7320  1884.0     7380  1884.0     7445
GR1882.0     7460  1881.3     7480  1882.0     7505  1884.0     7670  1882.0     7685
GR1882.0     7775  1884.0     7805  1884.2     7900  1884.0     8035  1882.7     8100
GR1884.0     8170  1884.3     8215  1884.0     8270  1882.0     8390  1881.6     8450
GR1882.0     8500  1882.0     8600  1882.0     8790  1881.6     8875  1882.0     8975
GR1882.0     9135  1881.6     9635  1882.0     9775  1882.0     9965  1872.0     9995
GR1872.0    10030  1880.0    10055  1882.0    10190  1882.0    10310  1884.0    10350
GR1884.8    10675  1886.0    10910  1888.0    10935
EJ


ER
EOF..
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110

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  20-SEP-88 TIME   14:53:05          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                 X     X
XXXXXXXX  XXXX      X           XXXXX  XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX
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 *************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 *************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 25-YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.000000      0.00      0.0       0.  1851.750     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      1.000  6400.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.040     0.100     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.000     6.100     0.000     0.000     0.000  7280.000  8300.000     0.000     0.000     0.000
NH      6.000     0.080  5000.000     0.060  6675.000     0.035  7300.000     0.060  7655.000     0.027
NH   7845.000     0.060 11250.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above Advanced Wastewater Treatment Plant)
                Centerline Station at 7740
X1      9.470    87.000  7655.000  7845.000     0.000     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
X4      1.000  1842.300  7728.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1852.000  4200.000  1851.000  4450.000  1859.000  4900.000  1850.000  4900.000  1850.000  4900.000
GR   1851.600  5000.000  1851.400  5059.000  1850.700  5063.000  1850.900  5115.000  1850.400  5147.000
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GR	1853.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1949.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7759.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1956.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.000	6200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6215.000	0.130	7580.000	0.040	8108.000	0.035	8229.000	0.100
NH	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8078.000	8291.000	0.000	0.000
		Centerline Station at 8172								
X1	9.590	56.000	8108.000	8229.000	640.000	690.000	670.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1856.000	4780.000	1956.000	5140.000	1854.000	5400.000	1852.100	5585.000	1852.300	6215.000
GR	1854.000	6270.000	1954.000	6385.000	1852.900	6465.000	1854.000	6510.000	1854.000	6845.000
GR	1852.500	6915.000	1854.000	6995.000	1854.000	7580.000	1853.500	7705.000	1854.000	7740.000
GR	1854.000	7835.000	1854.600	8009.000	1854.600	8078.000	1854.100	8108.000	1853.900	8119.000
GR	1844.300	8145.000	1843.700	8155.000	1842.700	8168.000	1842.000	8172.000	1842.800	8178.000
GR	1842.700	8187.000	1843.800	8200.000	1853.600	8229.000	1853.400	8260.000	1855.700	8291.000
GR	1854.900	8307.000	1854.600	8363.000	1854.400	8403.000	1854.600	8448.000	1855.200	8469.000
GR	1854.300	8505.000	1854.600	8538.000	1854.800	8555.000	1854.800	8588.000	1853.800	8714.000
GR	1854.400	8739.000	1854.300	8826.000	1853.400	8867.000	1855.400	8899.000	1857.600	8925.000
GR	1858.100	8950.000	1856.600	9015.000	1856.600	9037.000	1856.600	9061.000	1856.600	9072.000
GR	1858.000	9345.000	1856.000	9425.000	1855.000	9540.000	1856.000	9565.000	1858.000	9615.000
GR	1860.000	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	5400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	8785.000	0.130	9540.000	0.035	9615.000	0.130	9940.000	0.035
NH	10115.000	0.130	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
		Reduction in Q25 flow by 800 cfs due to split flow at x10.01								
		through 10.15 (flow returns at x9.59)								
X1	9.750	41.000	9975.000	10025.000	810.000	890.000	810.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9900.000	1860.600	10135.000	1860.300	0.000	0.000	0.000
GR	1864.000	6460.000	1862.000	6625.000	1860.000	6695.000	1858.000	6860.000	1859.500	7600.000
GR	1858.000	8070.000	1856.000	8120.000	1856.000	8215.000	1858.000	8275.000	1858.000	8785.000
GR	1858.000	9355.000	1856.800	9415.000	1858.000	9440.000	1858.800	9505.000	1858.000	9540.000
GR	1852.000	9562.000	1849.600	9575.000	1852.000	9587.000	1860.000	9615.000	1860.000	9745.000
GR	1859.000	9805.000	1860.000	9830.000	1860.600	9900.000	1860.000	9940.000	1850.000	9975.000
GR	1846.000	10000.000	1850.000	10025.000	1858.000	10050.000	1860.000	10115.000	1860.300	10135.000
GR	1860.000	10155.000	1855.300	10200.000	1858.000	10365.000	1860.000	10395.000	1862.000	10520.000
GR	1860.000	10780.000	1858.000	10815.000	1858.000	10945.000	1860.000	11040.000	1862.000	11050.000
GR	1864.000	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.040	2572.000	0.130	3143.000	0.035	3232.000	0.130	3860.000	0.035
NH	3999.000	0.130	4420.000	0.050	4910.000	0.130	5275.000	0.000	0.000	0.000
		Centerline Station at 3935								
X1	9.880	89.000	3860.000	3999.000	680.000	680.000	680.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	3831.000	1863.400	3999.000	1864.700	0.000	0.000	0.000
GR	1893.400	668.000	1870.600	713.000	1863.000	746.000	1863.000	816.000	1862.500	851.000
GR	1862.800	908.000	1863.300	952.000	1863.200	981.000	1863.200	1017.000	1863.400	1050.000
GR	1862.300	1096.000	1862.600	1125.000	1862.100	1160.000	1862.900	1234.000	1863.700	1302.000
GR	1863.400	1385.000	1863.800	1461.000	1861.900	1533.000	1861.100	1607.000	1861.500	1697.000

GR	1861.500	1773.000	1862.600	1858.000	1862.800	1933.000	1862.500	2021.000	1863.200	2088.000
GR	1861.900	2185.000	1862.800	2246.000	1862.900	2295.000	1863.300	2322.000	1863.300	2379.000
GR	1863.400	2451.000	1862.800	2523.000	1861.200	2564.000	1862.700	2572.000	1862.400	2604.000
GR	1862.300	2655.000	1862.700	2710.000	1862.100	2745.000	1861.200	2797.000	1861.500	2846.000
GR	1864.300	2879.000	1862.400	2947.000	1860.000	2978.000	1860.200	3004.000	1859.900	3027.000
GR	1860.700	3045.000	1862.400	3120.000	1862.000	3143.000	1856.500	3155.000	1852.800	3164.000

GR	1852.200	3170.000	1852.300	3175.000	1863.600	3194.000	1863.900	3232.000	1863.900	3277.000
GR	1862.300	3305.000	1862.200	3344.000	1863.900	3423.000	1863.900	3491.000	1862.700	3557.000
GR	1862.200	3574.000	1862.200	3616.000	1861.700	3666.000	1861.600	3704.000	1861.600	3731.000
GR	1861.200	3744.000	1862.900	3784.000	1863.400	3831.000	1862.600	3860.000	1859.700	3886.000
GR	1851.300	3892.000	1849.200	3910.000	1847.300	3935.000	1852.500	3958.000	1861.900	3976.000
GR	1864.700	3999.000	1864.000	4029.000	1863.100	4086.000	1861.400	4108.000	1861.700	4127.000
GR	1860.900	4144.000	1863.900	4177.000	1866.200	4263.000	1866.000	4360.000	1864.400	4420.000
GR	1866.300	4530.000	1867.200	4910.000	1868.000	5020.000	1870.000	5275.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.037	5615.000	0.130	7040.000	0.037	8560.000	0.035	8660.000	0.040
NH	9520.000	0.130	9775.000	0.035	10064.000	0.040	10295.000	0.130	11145.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9944.000	10150.000	0.000	0.000

**** Cheyenne Avenue ****
Single Cross Section Normal Bridge
Centerline Station at 10000
2* Debris Load
Future accelers: if low flow prevails, may convert to 5-arch NB

X1	10.010	65.000	9944.000	10064.000	605.000	795.000	735.000	0.000	0.000	0.000
BT	4.000	9944.000	1868.900	1868.900	9968.200	1868.800	1866.800	10031.700	1868.800	1866.800
BT	10064.000	1868.900	1868.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1878.000	5330.000	1876.000	5505.000	1876.000	5615.000	1876.000	5685.000	1874.000	5795.000
GR	1872.000	6155.000	1870.000	6445.000	1868.000	6775.000	1866.000	6860.000	1865.800	6900.000
GR	1866.000	6950.000	1867.200	6995.000	1866.000	7040.000	1866.000	7085.000	1868.000	7120.000
GR	1869.100	7150.000	1868.000	7165.000	1866.000	7175.000	1864.000	7195.000	1864.000	7225.000
GR	1866.000	7250.000	1868.000	7260.000	1870.000	7600.000	1870.000	7925.000	1868.000	8220.000
GR	1867.600	8560.000	1860.000	8570.000	1858.000	8600.000	1858.100	8610.000	1868.000	8660.000
GR	1869.800	8750.000	1868.000	9105.000	1867.500	9350.000	1868.000	9520.000	1868.000	9775.000
GR	1867.500	9850.000	1868.900	9944.000	1866.800	9968.200	1859.600	9968.300	1859.600	9975.700
GR	1866.300	9975.800	1866.800	9982.200	1859.600	9982.300	1859.600	9989.700	1866.800	9989.800
GR	1866.300	9996.000	1859.600	9996.100	1859.600	10003.700	1866.800	10003.800	1866.800	10010.200
GR	1859.600	10010.300	1859.600	10017.600	1866.800	10017.700	1866.800	10024.100	1859.600	10024.200
GR	1859.600	10031.600	1866.800	10031.700	1868.900	10064.000	1870.000	10295.000	1870.000	10575.000
GR	1872.300	10605.000	1874.000	10625.000	1874.000	10965.000	1876.000	11135.000	1878.000	11145.000
NH	5.000	0.037	8670.000	0.100	9465.000	0.040	9940.000	0.035	10050.000	0.040
NH	10590.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	6200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9605.000	10160.000	0.000	0.000

Centerline Station at 10000

X1	10.150	49.000	9940.000	10050.000	845.000	535.000	690.000	0.000	0.000	0.000
GR	1878.000	6160.000	1876.000	6400.000	1874.000	6420.000	1874.000	6610.000	1872.000	6705.000
GR	1870.000	6900.000	1868.000	7000.000	1868.000	7360.000	1870.000	7480.000	1872.000	7610.000
GR	1871.700	7910.000	1870.000	8075.000	1860.000	8100.000	1860.000	8110.000	1870.000	8145.000
GR	1872.000	8165.000	1872.000	8240.000	1874.000	8460.000	1874.000	8570.000	1872.000	8605.000
GR	1874.000	8670.000	1874.200	8860.000	1874.000	9015.000	1872.200	9085.000	1874.000	9135.000
GR	1874.000	9325.000	1872.000	9360.000	1872.000	9465.000	1874.000	9530.000	1874.300	9605.000
GR	1874.300	9695.000	1872.000	9810.000	1870.000	9820.000	1870.000	9835.000	1872.000	9850.000
GR	1874.000	9940.000	1872.000	9960.000	1864.000	9990.000	1864.000	10005.000	1866.000	10015.000
GR	1872.000	10040.000	1874.000	10050.000	1876.000	10160.000	1876.000	10185.000	1874.000	10215.000
GR	1874.300	10295.000	1876.000	10340.000	1876.000	10530.000	1878.000	10590.000	0.000	0.000

NC	0.342	0.037	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	1.000	5300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	7.100	0.000	0.000	0.000	0.000	9560.000	0.000	0.000	0.000

Centerline Station at 10000
Reduction in Q25 flow by 900 cfs due to divided flow at x10.46
and 10.49 (flow returns at x10.15)

X1	10.260	58.000	9965.000	10080.000	585.000	540.000	585.000	0.000	0.000	0.000
GR	1884.000	6005.000	1882.000	6345.000	1880.000	6475.000	1878.000	6540.000	1876.000	6580.000
GR	1874.000	6660.000	1872.300	6760.000	1872.000	6865.000	1872.000	6915.000	1872.400	7095.000
GR	1872.000	7230.000	1872.000	7255.000	1878.000	7275.000	1876.300	7345.000	1876.000	7430.000
GR	1876.000	7530.000	1870.000	7550.000	1868.000	7565.000	1870.000	7580.000	1876.000	7615.000
GR	1874.000	7745.000	1872.000	7755.000	1872.000	7785.000	1874.000	7795.000	1876.000	7810.000
GR	1877.300	7865.000	1876.000	8020.000	1876.000	8055.000	1878.000	8130.000	1878.000	8265.000
GR	1879.800	8550.000	1878.000	8870.000	1876.000	8880.000	1878.000	8895.000	1878.000	8985.000
GR	1879.500	9050.000	1878.000	9240.000	1876.400	9260.000	1878.000	9270.000	1878.000	9540.000
GR	1880.000	9560.000	1880.000	9650.000	1878.000	9725.000	1876.800	9865.000	1876.000	9965.000
GR	1868.000	9995.000	1867.700	10000.000	1868.000	10005.000	1870.000	10015.000	1870.000	10060.000
GR	1876.000	10080.000	1878.000	10135.000	1878.000	10330.000	1880.000	10445.000	1882.000	10550.000
GR	1884.000	10640.000	1884.000	10900.000	1886.000	10995.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9565.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9965.000	0.000	0.000	0.000

Centerline Station at 10000

X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1888.000	5015.000	1886.000	5025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.000	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.000	10675.000	1886.000	10910.000	1888.000	10835.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 7283.0 8300.0 TYPE= 1 TARGET= 1020.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1852.00 ELREA= 1850.70

SECNO=River Mileage (above Advanced Wastewater Treatment Plant)
Centerline Station at 7740

9.47	9.45	1851.75	0.33	0.00	1852.20	0.45	0.00	0.00	1852.00
6400.	0.	5450.	950.	0.	935.	753.	0.	0.	1850.70
0.00	0.00	5.83	1.25	0.000	0.027	0.060	0.000	1842.30	7663.53
0.001277	0.	0.	0.	0	0	0	0.00	636.07	8300.00

1490 NH CARD USED
*SECNO 9.590

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8073.0 8291.0 TYPE= 1 TARGET= 213.000
Centerline Station at 8172

9.59	10.54	1852.54	0.00	0.00	1853.71	1.17	1.29	0.22	1854.10
6200.	0.	6200.	0.	0.	713.	0.	19.	6.	1853.60
0.02	0.00	8.69	0.00	0.000	0.035	0.035	0.000	1842.00	8122.89
0.003297	640.	670.	690.	2	0	0	0.00	102.97	8225.86

FLOW DISTRIBUTION FOR SECNO= 9.59 CWSEL= 1852.54

STA= 8123. 8229.
PER Q= 100.0
AREA= 713.3
VEL= 8.7

1490 NH CARD USED
*SECNO 9.750

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9901.0 10135.0 TYPE= 1 TARGET= 235.000
ELENCL= 1860.60 ELENCR= 1860.30
Centerline Station at 10000
Reduction in Q25 flow by 800 cfs due to split flow at x10.01
through 10.15 (flow returns at x9.59)

9.75	9.29	1855.29	0.00	0.00	1857.75	2.46	3.65	0.39	1850.00
5400.	322.	4793.	285.	49.	365.	44.	30.	8.	1850.00
0.04	6.57	13.15	6.53	0.035	0.035	0.035	0.000	1846.00	9956.48
0.006899	810.	810.	893.	3	0	0	0.00	85.05	10041.53

1490 NH CARD USED
*SECNO 9.880

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 3831.0 3999.0 TYPE= 1 TARGET= 168.000
ELENCL= 1863.40 ELENCR= 1864.70
Centerline Station at 3935

9.88	12.00	1859.30	0.00	0.00	1860.16	0.86	2.25	0.16	1862.60
5400.	0.	5400.	0.	0.	726.	0.	39.	9.	1864.70
0.07	0.00	7.44	0.00	0.035	0.035	0.035	0.000	1847.30	3886.28
0.001939	690.	680.	680.	2	0	0	0.00	84.75	3971.02

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 10.010

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.80 MAX ELLC= 1868.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 9944.0 10150.0 TYPE= 1 TARGET= 206.000
**** Cheyenne Avenue ****
Single Cross Section Normal Bridge
Centerline Station at 10000
2* Debris Load
Future modelers: if low flow prevails, may convert to 5-arch NB

10.01	10.87	1870.47	1870.47	0.00	1871.84	1.37	3.51	0.25	1868.90
5400.	0.	4559.	841.	0.	468.	117.	50.	11.	1868.90
0.09	0.00	9.74	7.17	0.035	0.035	0.040	0.000	1859.60	9544.00
0.025100	605.	735.	795.	20	10	0	-183.50	206.00	10150.00

1490 NH CARD USED
*SECNO 10.150

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9605.0 10160.0 TYPE= 1 TARGET= 555.000
Centerline Station at 10000

10.15	10.89	1874.89	0.00	0.00	1875.38	0.49	3.28	0.26	1874.00
6200.	1865.	4313.	22.	625.	673.	22.	66.	17.	1874.00
0.12	2.98	6.41	0.99	0.040	0.035	0.040	0.000	1864.00	9605.00
0.002090	845.	690.	535.	7	9	0	0.00	494.08	10099.08

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9561.0 10995.0 TYPE= 1 TARGET= -9560.000
Centerline Station at 10000
Reduction in Q25 flow by 900 cfs due to divided flow at x10.46
and 10.49 (flow returns at x10.15)

10.26	8.41	1876.11	0.00	0.00	1877.26	1.16	1.69	0.20	1876.00
5300.	0.	5300.	0.	1.	614.	0.	79.	21.	1876.00
0.14	0.33	8.64	0.38	0.042	0.035	0.037	0.000	1867.70	9951.91
0.004550	585.	585.	540.	3	0	0	0.00	130.97	10082.88

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 10.340

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9965.0 10835.0 TYPE= 1 TARGET= -9965.000

Centerline Station at 10000

10.34	7.18	1875.18	1879.18	0.00	1881.79	2.60	3.01	0.43	1882.00
5300.	0.	5300.	0.	0.	409.	0.	84.	23.	1880.00
0.15	0.00	12.94	0.00	0.042	0.035	0.037	0.000	1872.00	9973.45
0.010761	450.	450.	420.	20	12	0	0.00	79.00	10052.45

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FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1875.18

STA= 9973. 10055.
PER Q= 100.0
AREA= 409.5
VEL= 12.9

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.470	0.00	0.00	0.00	1842.30	6400.00	1851.75	0.00	1852.20	12.77	5.83	1688.40	1790.78
	9.590	670.00	0.00	0.00	1842.00	6200.00	1852.54	0.00	1853.71	32.97	8.69	713.34	1079.72
	9.750	810.00	0.00	0.00	1846.00	5400.00	1855.29	0.00	1857.75	68.99	13.15	457.21	650.13
	9.880	680.00	0.00	0.00	1847.30	5400.00	1859.30	0.00	1860.16	19.39	7.44	726.09	1226.41
*	10.010	735.00	1868.80	1868.90	1859.60	5400.00	1870.47	1870.47	1871.84	251.00	9.74	585.43	340.85
	10.150	690.00	0.00	0.00	1864.00	6200.00	1874.89	0.00	1875.38	20.90	6.41	1320.54	1356.20
	10.260	585.00	0.00	0.00	1867.70	5300.00	1876.11	0.00	1877.26	45.50	8.64	614.38	785.71
*	10.340	450.00	0.00	0.00	1872.00	5300.00	1879.18	1879.18	1881.79	107.61	12.94	409.49	510.93

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LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.470	5400.00	1851.75	0.00	0.00	0.00	636.07	0.00
9.590	6200.00	1852.54	0.00	0.79	0.00	102.97	670.00

	9.750	5400.00	1855.29	0.00	2.75	0.00	85.85	810.00
	9.830	5400.00	1859.30	0.00	4.01	0.00	84.75	680.00
*	10.010	5400.00	1870.47	0.00	11.17	0.00	206.00	735.00
	10.150	6200.00	1874.89	0.00	4.42	0.00	494.08	690.00
	10.250	5300.00	1876.11	0.00	1.21	0.00	130.97	585.00
*	10.340	5300.00	1879.18	0.00	3.08	0.00	79.00	450.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.010 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.010 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.010 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.340 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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EOF..

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CC      13
CC    9.47        SECNO=River Mileage (above FIS xM)
CC    9.47        Centerline Station at 7740
CC    9.59        Centerline Station at 8172
CC    9.75        Centerline Station at 10000
CC    9.88        Centerline Station at 3935
CC   10.01        **** Cheyenne Avenue ****
CC   10.01        Single Cross Section Normal Bridge
CC   10.01        Centerline Station at 10000
CC   10.01        2' Debris Load
CC   10.01        Future modelers: if low flow prevails, may convert to 5-arch NB
CC   10.15        Centerline Station at 10000
CC   10.26        Centerline Station at 10000
CC   10.34        Centerline Station at 10000
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR
J1                2                                                  1852.09
J2     -1               -1
J3    150
JT      1   13000
NC 0.040   0.100    0.035      0.1      0.3
ET            6.1                                4940     8521
NH      6    .080     5000     .060     5575.     .035     7300.     .060     7655.     .027
NH 7845.     .060    11250
X1   9.47      87     7655     7845      185       185      185
X3     10
X4        2 1852.2     4940   1842.3     7728
GR1852.0     4200   1851.0     4450   1852.5     4900   1852.5     4900   1852.5     4900
GR1851.6 005000   1851.4 005059   1850.7 005063   1850.9 005115   1850.4 005147
GR1850.9 005182   1851.0 005217   1850.4 005256   1850.8 005304   1849.7 005380
GR1850.1 005446   1850.4 005631   1850.4 005694   1850.1 005790   1849.9 005861
GR1849.9 005900   1849.6 005925   1849.3 005941   1849.7 005988   1849.9 006040
GR1849.9 006037   1849.2 006171   1849.2 006214   1848.9 006298   1849.2 006340
GR1849.5 006412   1849.5 006461   1849.6 006511   1849.2 006558   1848.4 006675
GR1850.3 006715   1849.7 006735   1850.4 006804   1850.4 006862   1849.6 006929
GR1849.9 006991   1849.9 007041   1849.9 007097   1850.4 007142   1851.2 007181
GR1850.7 007250   1850.1 007276   1850.3 007300   1850.7 007318   1851.2 007345
GR1851.0 007387   1851.4 007425   1851.4 007484   1851.8 007524   1850.8 007556
GR1850.7 007591   1851.2 007622   1852.3 007655   1851.3 007680   1844.5 007702
GR1842.3 007758   1844.6 007777   1843.8 007783   1850.4 007803   1850.7 007845
GR1850.4 007893   1850.3 007955   1850.4 007996   1850.3 008065   1850.1 008129
GR1849.3 008190   1850.1 008239   1849.7 008253   1849.2 008324   1850.0 008364
GR1851.4 008384   1849.7 008418   1849.9 008453   1849.9 008512   1850.8 008521
GR1848.3    9000   1848.3    9500   1849.2   10200   1850.0   10350   1852.0   10700
GR1854.0   11030   1856.0   11250
QT      1   12500
NH      5    0.04     6215     0.13     7580     0.04     8108    0.035     8229     0.10
NH  9665
ET            7.1                                          5770     8291
X1   9.59      56     8108.    8229.     640       690      670
X2                                                                          15
GR1856.0     4780   1856.0     5140   1854.0     5400   1852.1     5585   1852.3     6215
GR1854.0     6270   1854.0     6385   1852.9     6465   1854.0     6510   1854.0     6845
GR1852.5     6915   1854.0     6955   1854.0     7580   1853.5     7705   1854.0     7740
GR1854.0 007935   1854.6 008009   1854.6 008078   1854.1 008108   1853.9 008119
GR1844.8 008145   1843.7 008155   1842.7 008168   1842.0 008172   1842.8 008178
GR1842.7 008187   1843.8 008200   1853.6 008229   1853.4 008260   1855.7 008291
GR1854.9 008307   1854.6 008363   1854.4 008403   1854.6 008448   1855.2 008469
GR1854.8 008505   1854.6 008538   1854.8 008555   1854.8 008588   1853.8 008714
GR1854.4 008739   1854.3 008826   1853.4 008867   1855.4 008899   1857.6 008925
GR1858.1 008950   1856.6 009015   1856.6 009037   1856.6 009051   1856.6 009072
GR1858.0    9345   1856.0    9425   1855.0    9540   1856.0    9565   1858.0    9615
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GR1860.0	9665								
NH 6	0.04	8785	0.13	9540	0.035	9615	0.13	9940	0.035
NH 10115	0.13	11065							
ET	7.1					8785	10135		
X1 9.75	41	9975	10025	810	890	810			
GR1864.0	6460	1862.0	6625	1850.0	6695	1858.0	6860	1859.5	7600
GR1858.0	8070	1856.0	8120	1856.0	8215	1858.0	8275	1858.0	8785
GR1858.0	9355	1856.8	9415	1858.0	9440	1858.8	9515	1858.0	9540
GR1852.0	9562	1849.6	9575	1852.0	9587	1860.0	9615	1860.0	9745
GR1859.0	9805	1860.0	9830	1850.6	9900	1860.0	9940	1850.0	9975
GR1846.0	10000	1850.0	10025	1858.0	10050	1860.0	10115	1860.3	10135
GR1860.0	10155	1855.3	10200	1858.0	10365	1860.0	10395	1862.0	10520
GR1860.0	10780	1858.0	10815	1859.0	10945	1860.0	11040	1862.0	11050
GR1864.0	11065								
NH 8	0.04	2572	0.13	3143	0.035	3232	0.13	3860	0.035
NH 3999	0.13	4420	0.05	4910	0.13	5275			
X1 9.88	89	3960.	3999.	680.	680.	680.			
X3			2879	1864.3	3999	1864.7			
GR1883.4	000658	1870.6	000713	1863.0	000746	1863.0	000816	1862.5	000851
GR1862.8	000908	1863.3	000952	1853.2	000981	1863.2	001017	1863.4	001050
GR1862.8	001096	1862.6	001125	1852.1	001160	1862.9	001234	1863.7	001302
GR1863.4	001335	1863.8	001461	1861.9	001533	1861.1	001607	1861.5	001697
GR1861.5	001773	1862.6	001858	1862.8	001933	1862.5	002021	1863.2	002088
GR1861.9	002135	1862.8	002245	1852.9	002295	1863.3	002322	1863.3	002379
GR1863.4	002451	1862.8	002523	1851.2	002564	1862.7	002572	1862.4	002604
GR1862.3	002655	1862.7	002710	1862.1	002745	1861.2	002797	1861.5	002846
GR1864.0	002879	1862.4	002947	1860.0	002978	1860.2	003004	1859.9	003027
GR1860.7	003045	1862.4	003120	1862.0	003143	1856.5	003155	1852.8	003164
GR1852.2	003170	1852.3	003175	1853.6	003194	1863.9	003232	1863.9	003277
GR1862.3	003305	1862.2	003344	1863.9	003423	1863.9	003491	1862.7	003557
GR1862.2	003574	1862.2	003616	1861.7	003666	1861.6	003704	1861.6	003731
GR1861.2	003744	1862.9	003784	1863.4	003831	1862.6	003860	1859.7	003886
GR1851.0	003892	1849.2	003910	1847.3	003935	1852.5	003958	1861.9	003976
GR1864.7	003999	1864.0	004029	1853.1	004086	1861.4	004108	1861.7	004127
GR1860.9	004144	1863.9	004177	1856.2	004263	1866.0	4360	1864.4	4420
GR1866.0	4530	1867.2	4910	1868.0	5020	1870.0	5275		
NC			0.3		0.5				
NH 9	0.037	5615	0.13	7040	0.037	8560	0.035	8660	0.040
NH 9520	0.13	9775	0.035	10064	0.040	10295	0.13	11145	
ET	7.1					7600			
X1 10.01	65	9944	10064	605	795	735			
BT 4	9944	1868.9	1868.9	9958.2	1868.8	1866.8	10031.7	1868.8	1866.8
BT 10064	1868.9	1868.9							
GR1878.0	5330	1876.0	5505	1876.0	5615	1876.0	5685	1874.0	5795
GR1872.0	6155	1870.0	6445	1868.0	6775	1866.0	6860	1865.0	6900
GR1866.0	6950	1867.2	6995	1866.0	7040	1866.0	7085	1868.0	7120
GR1869.1	7150	1868.0	7165	1866.0	7175	1864.0	7195	1864.0	7225
GR1866.0	7250	1868.0	7260	1870.0	7600	1870.0	7925	1868.0	8220
GR1867.6	8560	1860.0	8570	1858.0	8600	1858.1	8610	1868.0	8660
GR1869.8	8750	1868.0	9105	1867.5	9350	1868.0	9520	1868.0	9775
GR1867.5	9850	1868.9	9944	1866.8	9968.2	1859.6	9968.3	1859.6	9975.7
GR1866.8	9975.8	1866.8	9982.2	1859.6	9982.3	1859.6	9989.7	1866.8	9989.8
GR1866.8	9996.0	1859.6	9996.1	1859.6	10003.7	1866.8	10003.8	1866.8	10010.2
GR1859.6	10019.3	1859.6	10017.6	1856.8	10017.7	1866.8	10024.1	1859.6	10024.2
GR1859.6	10031.6	1866.8	10031.7	1868.9	10064	1870.0	10295	1870.0	10575
GR1872.0	10605	1874.0	10625	1874.0	10965	1876.0	11135	1878.0	11145
NH 5	0.037	8670	0.10	9465	0.040	9940	0.035	10050	0.040
NH 10590									
ET	7.1					7610	10160		
X1 10.15	49	9940	10050	845	535	690			
GR1878.0	6160	1876.0	6400	1874.0	6420	1874.0	6610	1872.0	6705
GR1870.0	6900	1868.0	7000	1868.0	7360	1870.0	7480	1872.0	7610
GR1871.7	7910	1870.0	8075	1860.0	8100	1860.0	8110	1870.0	8145
GR1872.0	8165	1872.0	8240	1874.0	8460	1874.0	8570	1872.0	8605
GR1874.0	8670	1874.2	8960	1874.0	9015	1872.2	9085	1874.0	9135
GR1874.0	9325	1872.0	9360	1872.0	9465	1874.0	9530	1874.3	9605
GR1874.0	9695	1872.0	9810	1870.0	9820	1870.0	9835	1872.0	9850
GR1874.0	9940	1872.0	9960	1864.0	9990	1864.0	10015	1866.0	10015

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GR1872.0   10040   1874.0   10050   1876.0   10160   1876.0   10135   1874.0   10215
GR1874.0   10295   1876.0   10340   1876.0   10530   1878.0   10590
NC 0.042   0.037    0.035     0.1     0.3
ET             7.1                                    7615
X1 10.26        58     9965   10080     585      540     585
GR1884.0      6005   1882.0    6345   1880.0    6475   1878.0    6540   1876.0    6580
GR1874.0      6660   1872.3    6760   1872.0    6865   1872.0    6915   1872.4    7095
GR1872.0      7230   1872.0    7255   1878.0    7275   1876.3    7345   1876.0    7430
GR1876.0      7530   1870.0    7550   1868.0    7565   1870.0    7580   1876.0    7615
GR1874.0      7745   1872.0    7755   1872.0    7785   1874.0    7795   1876.0    7810
GR1877.8      7865   1876.0    8020   1876.0    8055   1878.0    8130   1878.0    8265
GR1879.8      8550   1878.0    8870   1876.0    8880   1878.0    8895   1878.0    8985
GR1879.5      9050   1878.0    9240   1876.4    9260   1878.0    9270   1878.0    9540
GR1880.0      9560   1880.0    9650   1878.0    9725   1876.8    9865   1876.0    9965
GR1868.0      9995   1867.7   10000   1868.0   10005   1870.0   10015   1870.0   10060
GR1876.0     10080   1878.0   10135   1878.0   10330   1880.0   10445   1882.0   10550
GR1884.0     10640   1884.0   10900   1886.0   10995
NH       5    0.04     6660     0.10     8790    0.042     9965    0.035    10055    0.037
NH 10835
ET             7.1                                    8215
X1 10.34        53     9965   10055      450      420     450
X2                                                              15
GR1888.0      6015   1886.0    6025   1884.0    6075   1882.0    6295   1880.0    6315
GR1878.9      6420   1880.0    6480   1883.0    6505   1880.0    6515   1876.0    6535
GR1876.0      6545   1882.0    6560   1884.0    6660   1886.0    6925   1884.0    7025
GR1884.0      7110   1886.0    7210   1886.0    7320   1884.0    7380   1884.0    7445
GR1882.0      7460   1881.3    7490   1882.0    7505   1884.0    7670   1882.0    7685
GR1882.0      7775   1884.0    7805   1884.2    7900   1884.0    8035   1882.7    8100
GR1884.0      8170   1884.3    8215   1884.0    8270   1882.0    8390   1881.6    8450
GR1882.0      8500   1882.0    8600   1882.0    8790   1881.6    8875   1882.0    8975
GR1882.0      9185   1881.6    9635   1882.0    9775   1882.0    9965   1872.0    9995
GR1872.0     10030   1880.0   10055   1882.0   10190   1882.0   10310   1884.0   10350
GR1884.8     10675   1886.0   10910   1888.0   10835
EJ
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ER
EOF..
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I*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  20-SEP-88 TIME   15:18:28          *
 *************************************************
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114


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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X        X     X            X     X
X      X  X        X                  X     X
XXXXXXXX  XXXX     X          XXXXX    XXXXX
X      X  X        X                  X
X      X  X        X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 50-YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.000000      0.00      0.0       0.  1852.080     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      1.000  13000.000      0.000         0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.140      0.100      0.035         0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.300      6.100      0.000         0.000     0.000  4940.000  8521.000     0.000     0.000     0.000
NH      6.000      0.080   5000.000         0.060  6675.000     0.035  7300.000     0.060  7655.000     0.027
NH   7845.000      0.060  11250.000         0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNO=River Mileage (above FIS xM)
                Centerline Station at 7740
X1      9.470     87.000   7655.000      7845.000   185.000   185.000   185.000     0.000     0.000     0.000
X3     10.000      0.000      0.000         0.000     0.000     0.000     0.000     0.000     0.000     0.000
X4      2.000   1852.200   4940.000      1842.300  7723.000     0.000     0.000     0.000     0.000     0.000
GR   1852.100   4200.000   1951.000      4450.000  1852.500  4900.000  1852.500  4900.000  1852.500  4900.000
GR   1851.600   5000.000   1851.400      5059.000  1850.700  5063.000  1650.900  5115.000  1850.400  5147.000
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GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.300	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6040.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1849.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7250.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7758.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8190.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.300	12500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6215.000	0.130	7580.000	0.040	8108.000	0.035	8229.000	0.100
NH	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	5770.000	8291.000	0.000	0.000
		Centerline Station at 8172								
X1	9.590	56.000	8108.000	8229.000	640.000	690.000	670.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1856.100	4780.000	1856.000	5140.000	1854.000	5400.000	1852.100	5585.000	1852.300	6215.000
GR	1854.000	6270.000	1854.000	6385.000	1852.900	6465.000	1854.000	6510.000	1854.000	6845.000
GR	1852.500	6915.000	1854.000	6995.000	1854.000	7580.000	1853.500	7705.000	1854.000	7740.000
GR	1854.000	7835.000	1854.600	8009.000	1854.600	8078.000	1854.100	8108.000	1853.900	8119.000
GR	1844.300	8145.000	1843.700	8155.000	1842.700	8168.000	1842.000	8172.000	1842.800	8178.000
GR	1842.700	8187.000	1843.800	8200.000	1853.600	8229.000	1853.400	8260.000	1855.700	8291.000
GR	1854.300	8307.000	1854.600	8363.000	1854.400	8403.000	1854.600	8448.000	1855.200	8469.000
GR	1854.800	8505.000	1854.600	8538.000	1854.800	8555.000	1854.800	8588.000	1853.800	8714.000
GR	1854.400	8739.000	1854.300	8826.000	1853.400	8867.000	1855.400	8899.000	1857.600	8925.000
GR	1858.100	8950.000	1856.600	9015.000	1856.600	9037.000	1856.600	9061.000	1856.600	9072.000
GR	1858.300	9345.000	1856.000	9425.000	1855.000	9540.000	1856.000	9565.000	1858.000	9615.000
GR	1860.300	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.300	0.040	9785.000	0.130	9540.000	0.035	9615.000	0.130	9940.000	0.035
NH	10115.300	0.130	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8785.000	10135.000	0.000	0.000
		Centerline Station at 10000								
X1	9.750	41.000	9975.000	10025.000	810.000	890.000	810.000	0.000	0.000	0.000
GR	1864.300	6460.000	1862.000	6625.000	1860.000	6695.000	1858.000	6860.000	1859.500	7600.000
GR	1858.000	8070.000	1856.000	8120.000	1856.000	8215.000	1858.000	8275.000	1858.000	8785.000
GR	1858.000	9355.000	1856.800	9415.000	1858.000	9440.000	1858.800	9505.000	1858.000	9540.000
GR	1852.000	9562.000	1849.600	9575.000	1852.000	9587.000	1860.000	9615.000	1860.000	9745.000
GR	1859.000	9805.000	1960.000	9830.000	1860.600	9900.000	1860.000	9940.000	1850.000	9575.000
GR	1846.300	10000.000	1850.000	10025.000	1858.000	10050.000	1860.000	10115.000	1860.300	10135.000
GR	1860.000	10155.000	1855.300	10200.000	1858.000	10365.000	1860.000	10395.000	1862.000	10520.000
GR	1860.300	10780.000	1858.000	10815.000	1858.000	10945.000	1860.000	11040.000	1862.000	11050.000
GR	1864.300	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.300	0.040	2572.000	0.130	3143.000	0.035	3232.000	0.130	3860.000	0.035
NH	3999.300	0.130	4420.000	0.050	4910.000	0.130	5275.000	0.000	0.000	0.000
		Centerline Station at 3935								
X1	9.380	89.000	3860.000	3999.000	680.000	680.000	680.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	2879.000	1864.000	3999.000	1864.700	0.000	0.000	0.000
GR	1883.400	668.000	1870.600	713.000	1863.000	746.000	1863.000	816.000	1862.500	851.000
GR	1862.800	908.000	1863.300	952.000	1863.200	981.000	1863.200	1017.000	1863.400	1050.000
GR	1862.300	1096.000	1862.600	1125.000	1862.100	1160.000	1862.900	1234.000	1863.700	1302.000
GR	1863.400	1385.000	1863.800	1461.000	1861.900	1533.000	1861.100	1607.000	1861.500	1697.000
GR	1861.500	1773.000	1862.600	1858.000	1862.800	1933.000	1862.500	2021.000	1863.200	2088.000
GR	1861.900	2185.000	1862.800	2245.000	1862.900	2295.000	1863.300	2322.000	1863.300	2379.000
GR	1863.400	2451.000	1862.800	2523.000	1861.200	2564.000	1862.700	2572.000	1862.400	2604.000

GR	1862.300	2655.000	1862.700	2710.000	1862.100	2745.000	1861.200	2797.000	1861.500	2846.000
GR	1864.100	2879.000	1862.400	2947.000	1860.000	2978.000	1860.200	3004.000	1859.900	3027.000
GR	1860.700	3045.000	1862.400	3120.000	1862.000	3143.000	1856.500	3155.000	1852.800	3164.000
GR	1852.200	3170.000	1852.300	3175.000	1863.600	3194.000	1863.900	3232.000	1863.900	3277.000
GR	1862.300	3305.000	1862.200	3344.000	1863.900	3423.000	1863.900	3491.000	1862.700	3557.000
GR	1862.200	3574.000	1862.200	3616.000	1861.700	3666.000	1861.600	3704.000	1861.600	3731.000

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GR	1861.200	3744.000	1862.900	3784.000	1863.400	3831.000	1862.600	3860.000	1859.700	3886.000
GR	1851.100	3892.000	1849.200	3910.000	1847.300	3935.000	1852.500	3958.000	1861.900	3976.000
GR	1864.700	3999.000	1864.000	4029.000	1863.100	4086.000	1861.400	4108.000	1861.700	4127.000
GR	1860.900	4144.000	1863.900	4177.000	1866.200	4263.000	1866.000	4360.000	1864.400	4420.000
GR	1866.300	4530.000	1867.200	4910.000	1868.000	5020.000	1870.000	5275.000	0.000	0.000
NC	0.300	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.300	0.037	5615.300	0.130	7040.000	0.037	8560.000	0.035	8660.000	0.040
NH	9520.000	0.130	9775.000	0.035	10064.000	0.040	10295.000	0.130	11145.000	0.000
ET	0.300	7.100	0.000	0.000	0.000	0.000	7600.000	0.000	0.000	0.000

****** Cheyenne Avenue ******
Single Cross Section Normal Bridge
Centerline Station at 10000
2' Debris Load
Future modelers: if low flow prevails, may convert to 5-arch NB

X1	10.010	65.000	9944.000	10064.000	605.000	795.000	735.000	0.000	0.000	0.000
BT	4.000	9944.000	1868.900	1868.900	9968.200	1868.800	1866.800	10031.700	1868.800	1866.800
BT	10064.000	1868.900	1868.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1878.000	5330.000	1876.000	5505.000	1876.000	5615.000	1876.000	5685.000	1874.000	5795.000
GR	1872.300	6155.000	1870.000	6445.000	1868.000	6775.000	1866.000	6860.000	1865.800	6900.000
GR	1866.300	6950.000	1867.200	6995.000	1866.000	7040.000	1866.000	7085.000	1868.000	7120.000
GR	1869.100	7150.000	1868.000	7165.000	1866.000	7175.000	1864.000	7195.000	1864.000	7225.000
GR	1866.000	7250.000	1868.000	7260.000	1870.000	7600.000	1870.000	7925.000	1868.000	8220.000
GR	1867.600	8560.000	1860.000	8570.000	1858.000	8600.000	1858.100	8610.000	1868.000	8660.000
GR	1869.300	8750.000	1868.000	9105.000	1867.500	9350.000	1868.000	9520.000	1868.000	9775.000
GR	1867.500	9850.000	1868.900	9944.000	1866.800	9968.200	1859.600	9968.300	1859.600	9575.700
GR	1866.300	9975.800	1866.800	9982.200	1859.600	9982.300	1859.600	9989.700	1866.800	9969.800
GR	1866.300	9996.000	1859.600	9996.100	1859.600	10003.700	1866.800	10003.800	1866.800	10010.200
GR	1859.600	10010.300	1859.600	10017.600	1866.800	10017.700	1866.800	10024.100	1859.600	10024.200
GR	1859.600	10031.600	1866.800	10031.700	1868.900	10064.000	1870.000	10295.000	1870.000	10575.000
GR	1872.300	10605.000	1874.000	10625.000	1874.000	10965.000	1876.000	11135.000	1878.000	11145.000
NH	5.300	0.037	8670.000	0.100	9465.000	0.040	9940.000	0.035	10050.000	0.040
NH	10590.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.300	7.100	0.000	0.000	0.000	0.000	7610.000	10160.000	0.000	0.000

Centerline Station at 10000

X1	10.150	49.000	9940.000	10050.000	845.000	535.000	690.000	0.000	0.000	0.000
GR	1878.000	6160.000	1876.000	6400.000	1874.000	6420.000	1874.000	6610.000	1872.000	6705.000
GR	1870.000	6900.000	1868.000	7000.000	1868.000	7360.000	1870.000	7480.000	1872.000	7610.000
GR	1871.700	7910.000	1870.000	8075.000	1860.000	8100.000	1860.000	8110.000	1870.000	8145.000
GR	1872.300	8165.000	1872.000	8240.000	1874.000	8460.000	1874.000	8570.000	1872.000	8605.000
GR	1874.300	8670.000	1874.200	8860.000	1874.000	9015.000	1872.200	9085.000	1874.000	9135.000
GR	1874.300	9325.000	1872.000	9360.000	1872.000	9465.000	1874.000	9530.000	1874.300	9605.000
GR	1874.000	9695.000	1872.000	9810.000	1870.000	9820.000	1870.000	9835.000	1872.000	9850.000
GR	1874.300	9940.000	1872.000	9960.000	1864.000	9990.000	1864.000	10005.000	1866.000	10015.000
GR	1872.300	10040.000	1874.000	10050.000	1876.000	10160.000	1876.000	10185.000	1874.000	10215.000
GR	1874.000	10295.000	1876.000	10340.000	1876.000	10530.000	1878.000	10590.000	0.000	0.000
NC	0.342	0.037	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.300	7.100	0.000	0.000	0.000	0.000	7615.000	0.000	0.000	0.000

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Centerline Station at 10000

X1	10.260	58.000	9965.000	10080.000	585.000	540.000	585.000	0.000	0.000	0.000
GR	1884.100	6005.000	1882.000	6345.000	1880.000	6475.000	1878.000	6540.000	1876.000	6580.000
GR	1874.000	6660.000	1872.300	6760.000	1872.000	6865.000	1872.000	6915.000	1872.400	7095.000

GR	1872.000	7230.000	1872.000	7255.000	1878.000	7275.000	1876.300	7345.000	1876.000	7430.000
GR	1876.000	7530.000	1870.000	7550.000	1868.000	7565.000	1870.000	7580.000	1876.000	7615.000
GR	1874.000	7745.000	1872.000	7755.000	1872.000	7785.000	1874.000	7795.000	1876.000	7810.000
GR	1877.800	7865.000	1876.000	8020.000	1876.000	8055.000	1878.000	8130.000	1878.000	8265.000
GR	1879.300	8550.000	1878.000	8870.000	1876.000	8880.000	1878.000	8895.000	1878.000	8985.000
GR	1879.500	9050.000	1878.000	9240.000	1876.400	9260.000	1876.000	9270.000	1878.000	9540.000
GR	1880.000	9560.000	1880.000	9650.000	1878.000	9725.000	1876.800	9865.000	1876.000	9965.000
GR	1868.000	9995.000	1867.700	10000.000	1868.000	10005.000	1870.000	10015.000	1870.000	10060.000
GR	1876.000	10080.000	1878.000	10135.000	1878.000	10330.000	1880.000	10445.000	1882.000	10550.000
GR	1884.000	10640.000	1884.000	10900.000	1886.000	10995.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9965.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	9.000	7.100	0.001	0.000	0.000	0.000	8215.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1888.000	6015.000	1886.000	6025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.800	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.800	10675.000	1886.000	10810.000	1888.000	10835.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 4940.0 8521.0 TYPE= 1 TARGET= 3581.000
SECNO=River Mileage (above FIS xM)
Centerline Station at 7740

9.47	9.78	1852.08	0.00	0.00	1852.21	0.13	0.00	0.00	1952.00
13000.	6870.	4581.	1549.	5143.	997.	1373.	0.	0.	1850.70
0.00	1.33	4.60	1.13	0.052	0.027	0.060	0.000	1842.30	4952.00
0.000777	185.	185.	185.	0	0	0	0.00	3569.00	8521.00

1490 NH CARD USED
*SECNO 9.590

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 5770.0 8291.0 TYPE= 1 TARGET= 2521.000
Centerline Station at 8172

9.59	12.39	1854.39	1854.39	0.00	1855.31	0.92	0.91	0.23	1854.10

```
  12500.     4021.     8453.       25.     1895.      917.       34.       78.       44.   1853.60
    0.03      2.13      9.22      0.74      0.049     0.035     0.130     0.000   1842.00   5770.00
0.003288      640.      670.      690.         20        13         0      0.00   2360.77   8273.34
)
 FLOW DISTRIBUTION FOR SECNO=      9.59          CWSEL=   1854.39

 STA=    5770.     6215.     7590.     8108.     8229.     8273.
   PER Q=    27.3       3.1       1.8      67.6       0.2
    AREA=   961.4     760.0     163.9     916.9      34.2
     VEL=     3.5       0.5       1.3       9.2       0.7

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

  1490 NH CARD USED
  *SECNO 9.750

  3265 DIVIDED FLOW


  3301 HV CHANGED MORE THAN HVINS

  7185 MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED

  3470 ENCROACHMENT STATIONS=    8785.0   10135.0  TYPE=     1  TARGET=    1350.000
                Centerline Station at 10000
       9.75     12.68   1858.68   1858.68      0.00   1860.45      1.76      3.05      0.25   1850.00
    12500.     4440.     7165.      895.     1016.      534.      125.      120.       75.   1850.00
      0.05      4.37     13.41      7.13     0.042     0.035     0.035     0.000   1846.00   8785.00
  0.004313      810.      810.      890.         4         5         0      0.00    938.45  10072.22
  )
  1490 NH CARD USED
  *SECNO 9.880

  3265 DIVIDED FLOW


  3470 ENCROACHMENT STATIONS=    2879.0    3999.0  TYPE=     1  TARGET=    1120.000
   ELENCL=   1864.00  ELENCR=   1864.70
                Centerline Station at 3935
       9.38     14.39   1861.69      0.00      0.00   1863.18      1.48      2.70      0.03   1862.60
    12500.     2471.    10029.        0.       425.      953.        0.      143.       85.   1864.70
      0.07      5.82     10.53      0.00     0.040     0.035     0.035     0.000   1847.30   2956.13
  0.003672      680.      680.      680.         2         0         0      0.00    374.34   3975.60
  )
  CCHV=   0.300  CEHV=   0.500
  1490 NH CARD USED
  *SECNO 10.010

  3265 DIVIDED FLOW


  3301 HV CHANGED MORE THAN HVINS

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
```

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.80 MAX ELLC= 1868.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7600.0 11145.0 TYPE= 1 TARGET= -7600.000

**** Cheyenne Avenue ****
Single Cross Section Normal Bridge
Centerline Station at 10000
2' Debris Load
Future modelers: if low flow prevails, may convert to 5-arch NB

10.01	10.57	1868.57	1868.57	0.00	1869.26	0.69	3.09	0.24	1868.90
12500.	11155.	1345.	0.	1632.	271.	0.	168.	95.	1868.90
0.10	6.83	4.97	0.00	0.036	0.035	0.040	0.000	1658.00	8135.45
0.006075	605.	735.	795.	20	11	0	-154.90	1594.54	10058.97

1490 NH CARD USED
*SECNO 10.150

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 7610.0 10160.0 TYPE= 1 TARGET= 2550.000

Centerline Station at 10000

10.15	12.71	1872.71	0.00	0.00	1873.39	0.68	4.13	0.00	1874.00
12500.	8972.	3528.	0.	1486.	446.	0.	204.	125.	1874.00
0.13	6.03	7.92	0.00	0.038	0.035	0.040	0.000	1860.00	7610.00
0.004286	845.	690.	535.	1	0	0	0.00	1121.71	10043.55

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7615.0 10995.0 TYPE= 1 TARGET= -7615.000

Centerline Station at 10000

10.26	9.64	1877.34	1877.34	0.00	1878.68	1.34	2.84	0.20	1876.00
12500.	4174.	8269.	57.	903.	756.	25.	228.	138.	1876.00
0.15	4.62	10.94	2.29	0.042	0.035	0.037	0.000	1867.70	7615.00
0.005530	585.	585.	540.	20	16	0	0.00	786.19	10116.88

1490 NH CARD USED
*SECNO 10.340

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8215.0 10835.0 TYPE= 1 TARGET= -8215.000
Centerline Station at 10000

10.34	11.24	1883.24	1883.24	0.00	1883.97	0.73	1.69	0.06	1882.00
12500.	4177.	6857.	1465.	2173.	761.	466.	254.	152.	1680.00
0.17	1.92	9.01	3.14	0.049	0.035	0.037	0.000	1872.00	8315.72
0.002721	450.	450.	420.	20	21	0	0.00	2019.04	10334.76

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1883.24

STA=	8316.	8790.	8975.	9185.	9635.	9775.	9965.	10055.	10190.	10335.
PER Q=	4.0	5.0	4.4	12.2	3.8	4.0	54.9	8.7	3.1	
AREA=	563.2	266.0	260.0	647.1	201.3	235.2	761.4	302.1	163.9	
VEL=	0.9	2.4	2.1	2.4	2.4	2.1	9.0	3.6	2.3	

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 50-YR
SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.470	0.00	0.00	0.00	1842.30	13000.00	1852.08	0.00	1852.21	7.77	4.60	7518.39	4662.83
*	9.590	670.00	0.00	0.00	1842.00	12500.00	1854.39	1854.39	1855.31	32.88	9.22	2836.38	2179.88
*	9.750	810.00	0.00	0.00	1846.00	12500.00	1858.68	1858.68	1860.45	43.13	13.41	1675.08	1903.35
	9.880	680.00	0.00	0.00	1847.30	12500.00	1861.69	0.00	1863.18	36.72	10.53	1377.57	2062.76
*	10.010	735.00	1868.90	1868.90	1858.00	12500.00	1868.57	1868.57	1869.26	60.75	4.97	1903.02	1603.76
	10.150	690.00	0.00	0.00	1860.00	12500.00	1872.71	0.00	1873.39	42.86	7.92	1933.53	1909.41
*	10.260	585.00	0.00	0.00	1867.70	12500.00	1877.34	1877.34	1878.68	55.30	10.94	1683.32	1680.96
*	10.340	450.00	0.00	0.00	1872.00	12500.00	1883.24	1883.24	1883.97	27.21	9.01	3400.30	2396.18

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LAS VEGAS WASH - 50-YR
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH

	9.470	13000.00	1852.08	0.00	0.00	0.00	3569.00	0.00
*	9.590	12500.00	1854.39	0.00	2.31	0.00	2360.77	670.00
*	9.750	12500.00	1858.68	0.00	4.29	0.00	939.45	810.00
	9.880	12500.00	1861.69	0.00	3.01	0.00	374.34	680.00
*	10.010	12500.00	1868.57	0.00	6.88	0.00	1594.54	735.00
	10.150	12500.00	1872.71	0.00	4.14	0.00	1121.71	690.00
*	10.260	12500.00	1877.34	0.00	4.63	0.00	786.19	585.00
*	10.340	12500.00	1883.24	0.00	5.90	0.00	2019.04	450.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO=     9.590  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     9.590  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=     9.590  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=     9.750  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=     9.750  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=    10.010  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    10.010  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    10.010  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    10.260  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    10.260  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    10.260  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    10.340  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    10.340  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    10.340  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
```



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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE  20-SEP-88 TIME   14:51:09          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX                XXXXX
X     X  X        X     X              X     X
X     X  X        X                    X     X
XXXXXXX  XXXX     X           XXXXX    XXXXX
X     X  X        X                    X
X     X  X        X     X              X
X     X  XXXXXXX  XXXXX                XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        2.        0.        0.  0.000000    0.00      0.0       0.  1852.200    0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECK     FN        ALLDC     IBW       CHNIM     ITRACE
        1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
      150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      2.000  24000.000  84000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.040      0.100      0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.000      6.100      3.000     3.000     0.000  4940.000  8521.000     0.000     0.000     0.000
XH      6.000      0.080   5000.000     0.060  6675.000     0.035  7300.000     0.060  7655.000     0.027
NH   7845.000      0.060  11250.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
                SECNO=RIVER MILEAGE (ABOVE ADVANCED WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 7740
X1      9.470     87.000   7655.000  7845.000     0.000     0.000     0.000     0.000     0.000     0.000
X3     10.000      0.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
X4      1.000   1842.300   7728.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   1852.000   4200.000   1851.000  4450.000  1850.000  4900.000  1850.000  4900.000  1850.000  4900.000
GR   1851.600   5000.000   1851.400  5059.000  1850.700  5063.000  1850.900  5115.000  1850.400  5147.000
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GR	1850.900	5182.000	1851.000	5217.000	1850.400	5256.000	1850.800	5304.000	1849.700	5380.000
GR	1850.100	5446.000	1850.400	5631.000	1850.400	5694.000	1850.100	5790.000	1849.900	5861.000
GR	1849.900	5900.000	1849.600	5925.000	1849.300	5941.000	1849.700	5988.000	1849.900	6049.000
GR	1849.900	6087.000	1849.200	6171.000	1849.200	6214.000	1848.900	6298.000	1849.200	6340.000
GR	1845.500	6412.000	1849.500	6461.000	1849.600	6511.000	1849.200	6568.000	1848.400	6675.000
GR	1850.300	6715.000	1849.700	6735.000	1850.400	6804.000	1850.400	6862.000	1849.600	6928.000
GR	1849.900	6991.000	1849.900	7041.000	1849.900	7097.000	1850.400	7142.000	1851.200	7181.000
GR	1850.700	7252.000	1850.100	7276.000	1850.300	7300.000	1850.700	7318.000	1851.200	7345.000
GR	1851.000	7387.000	1851.400	7425.000	1851.400	7484.000	1851.800	7524.000	1850.800	7556.000
GR	1850.700	7591.000	1851.200	7622.000	1852.000	7655.000	1851.300	7680.000	1844.500	7702.000
GR	1842.300	7753.000	1844.600	7777.000	1843.800	7783.000	1850.400	7803.000	1850.700	7845.000
GR	1850.400	7893.000	1850.300	7955.000	1850.400	7996.000	1850.300	8065.000	1850.100	8129.000
GR	1849.300	8150.000	1850.100	8239.000	1849.700	8253.000	1849.200	8324.000	1850.000	8364.000
GR	1851.400	8384.000	1849.700	8418.000	1849.900	8453.000	1849.900	8512.000	1850.800	8521.000
GR	1848.300	9000.000	1848.300	9500.000	1849.200	10200.000	1850.000	10350.000	1852.000	10700.000
GR	1854.000	11030.000	1856.000	11250.000	0.000	0.000	0.000	0.000	0.000	0.000

GT	2.000	23000.000	32000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	8215.000	0.130	7580.000	0.040	8108.000	0.035	8229.000	0.100
NH	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	8291.000	0.000	0.000
		CENTERLINE STATION AT 8172								
X1	9.590	56.000	8108.000	8229.000	640.000	690.000	670.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1656.000	4780.000	1856.000	5140.000	1854.000	5400.000	1852.100	5585.000	1852.300	6215.000
GR	1854.000	5270.000	1854.000	6385.000	1852.900	6465.000	1854.000	6510.000	1854.000	6845.000
GR	1852.500	6915.000	1854.000	6995.000	1854.000	7580.000	1853.500	7705.000	1854.000	7740.000
GR	1854.000	7835.000	1854.600	8009.000	1854.600	8078.000	1854.100	8108.000	1853.900	8119.000
GR	1844.800	8145.000	1843.700	8155.000	1842.700	8168.000	1842.000	8172.000	1842.800	8178.000
GR	1842.700	8187.000	1843.800	8200.000	1853.600	8229.000	1853.400	8260.000	1855.700	8291.000
GR	1854.900	8307.000	1854.600	8362.000	1854.400	8403.000	1854.600	8448.000	1855.200	8469.000
GR	1854.800	8505.000	1854.600	8538.000	1854.800	8555.000	1854.800	8588.000	1853.800	8714.000
GR	1854.400	8739.000	1854.300	8826.000	1853.400	8867.000	1855.400	8899.000	1857.600	8925.000
GR	1858.100	8950.000	1856.600	9015.000	1856.600	9037.000	1856.600	9061.000	1856.600	9072.000
GR	1858.000	9345.000	1856.000	9425.000	1855.000	9540.000	1856.000	9565.000	1858.000	9615.000
GR	1860.000	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	8785.000	0.130	9540.000	0.035	9615.000	0.130	9540.000	0.035
NH	10115.000	0.130	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	0.000	10135.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	9.750	41.000	9975.000	10025.000	810.000	890.000	810.000	0.000	0.000	0.000
GR	1864.000	6460.000	1862.000	6625.000	1860.000	6695.000	1858.000	6860.000	1859.500	7600.000
GR	1858.000	8070.000	1856.000	8120.000	1856.000	8215.000	1858.000	8275.000	1858.000	8785.000
GR	1858.000	9355.000	1856.300	9415.000	1858.000	9440.000	1858.800	9505.000	1858.000	9540.000
GR	1852.000	9562.000	1849.600	9575.000	1852.000	9587.000	1860.000	9615.000	1860.000	9745.000
GR	1859.000	9805.000	1860.000	9830.000	1860.000	9900.000	1860.000	9940.000	1850.000	9975.000
GR	1846.000	10000.000	1850.000	10025.000	1858.000	10050.000	1860.000	10115.000	1860.300	10135.000
GR	1860.000	10155.000	1855.300	10200.000	1858.000	10365.000	1860.000	10395.000	1862.000	10520.000
GR	1860.000	10780.000	1858.000	10815.000	1858.000	10945.000	1860.000	11040.000	1862.000	11050.000
GR	1864.000	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	8.000	0.040	2572.000	0.130	3143.000	0.035	3232.000	0.130	3860.000	0.035
NH	3999.000	0.130	4420.000	0.000	4910.000	0.130	5275.000	0.000	0.000	0.000
		CENTERLINE STATION AT 3935								
X1	9.880	89.000	3860.000	3999.000	680.000	680.000	680.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	3999.000	1864.700	0.000	0.000	0.000
GR	1883.400	668.000	1870.600	713.000	1863.000	746.000	1863.000	816.000	1862.500	851.000
GR	1862.800	908.000	1863.300	952.000	1863.200	981.000	1863.200	1017.000	1863.400	1050.000
GR	1862.800	1096.000	1862.600	1125.000	1862.100	1160.000	1862.900	1234.000	1863.700	1302.000
GR	1863.400	1385.000	1863.800	1461.000	1861.900	1533.000	1861.100	1607.000	1861.500	1697.000
GR	1861.500	1773.000	1862.600	1858.000	1862.800	1933.000	1862.500	2021.000	1863.200	2088.000
GR	1861.900	2185.000	1862.800	2245.000	1862.900	2295.000	1863.300	2322.000	1863.300	2379.000
GR	1863.400	2451.000	1862.800	2523.000	1861.200	2564.000	1862.700	2572.000	1862.400	2604.000

GR	1862.300	2655.000	1862.700	2710.000	1862.100	2745.000	1861.200	2797.000	1861.500	2846.000
GR	1864.000	2879.000	1862.400	2947.000	1860.000	2978.000	1860.200	3004.000	1859.900	3027.000
GR	1860.700	3045.000	1862.400	3120.000	1862.000	3143.000	1856.500	3155.000	1852.800	3164.000
GR	1852.200	3170.000	1852.300	3175.000	1863.600	3194.000	1863.900	3232.000	1863.900	3277.000
GR	1862.300	3305.000	1862.200	3344.000	1863.900	3423.000	1863.900	3491.000	1862.700	3557.000
GR	1862.200	3574.000	1862.200	3616.000	1861.700	3666.000	1861.600	3704.000	1861.600	3731.000

GR	1861.200	3744.000	1862.900	3784.000	1863.400	3831.000	1862.600	3860.000	1859.700	3886.000
GR	1851.000	3892.000	1849.200	3910.000	1847.300	3935.000	1852.500	3958.000	1861.900	3976.000
GR	1864.700	3999.000	1864.000	4029.000	1863.100	4086.000	1861.400	4108.000	1861.700	4127.000
GR	1860.900	4144.000	1863.900	4177.000	1866.200	4263.000	1866.000	4360.000	1864.400	4420.000
GR	1866.000	4530.000	1867.200	4910.000	1868.000	5020.000	1870.000	5275.000	0.000	0.000
NC	0.000	0.000	0.100	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	9.000	0.037	5615.000	0.100	7040.000	0.037	8660.000	0.035	8660.000	0.040
NH	9520.000	0.130	5775.000	0.035	10064.000	0.040	10295.000	0.130	11145.000	0.000

**** CHEYENNE AVENUE ****
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000
2' DEBRIS LOAD
FUTURE MODELERS: IF LOW FLOW PREVAILS, MAY CONVERT TO 5-ARCH NB

X1	10.010	65.000	9944.000	10064.000	605.000	795.000	735.000	0.000	0.000	0.000
BT	4.000	9944.000	1868.900	1868.900	9968.200	1868.800	1866.800	10031.700	1868.800	1866.800
BT	10064.000	1868.900	1868.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1878.000	5330.000	1876.000	5505.000	1876.000	5615.000	1876.000	5685.000	1874.000	5795.000
GR	1872.000	6155.000	1870.000	6445.000	1868.000	6775.000	1868.000	6860.000	1865.800	6900.000
GR	1866.000	6950.000	1867.200	6995.000	1866.000	7040.000	1866.000	7085.000	1868.000	7120.000
GR	1869.100	7150.000	1868.000	7165.000	1866.000	7175.000	1864.000	7195.000	1864.000	7225.000
GR	1866.000	7250.000	1868.000	7260.000	1870.000	7600.000	1870.000	7925.000	1868.000	8220.000
GR	1867.600	8560.000	1860.000	8570.000	1858.000	8600.000	1858.100	8610.000	1868.000	8660.000
GR	1869.800	8750.000	1868.000	9105.000	1867.500	9350.000	1868.000	9520.000	1868.000	9775.000
GR	1867.500	9850.000	1868.900	9944.000	1866.800	9968.200	1859.600	9968.300	1859.600	9975.700
GR	1866.800	9975.800	1866.800	9982.200	1859.600	9982.300	1859.600	9989.700	1866.800	9989.800
GR	1866.800	9996.000	1859.600	9996.100	1859.600	10003.700	1866.800	10003.800	1866.800	10010.200
GR	1859.600	10010.300	1859.600	10017.600	1866.800	10017.700	1866.800	10024.100	1859.600	10024.200
GR	1859.600	10031.600	1866.800	10031.700	1866.900	10064.000	1870.000	10295.000	1870.000	10575.000
GR	1872.000	10605.000	1874.000	10625.000	1874.000	10965.000	1876.000	11135.000	1878.000	11145.000
NH	5.000	0.037	8670.000	0.100	9465.000	0.040	9540.000	0.035	10050.000	0.040
NH	10590.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	10.150	49.000	9940.000	10050.000	845.000	535.000	690.000	0.000	0.000	0.000
GR	1878.000	6160.000	1876.000	6400.000	1874.000	6420.000	1874.000	6610.000	1872.000	6705.000
GR	1870.000	6900.000	1868.000	7000.000	1868.000	7360.000	1870.000	7480.000	1872.000	7610.000
GR	1871.700	7910.000	1870.000	8075.000	1866.000	8100.000	1866.000	8110.000	1870.000	8145.000
GR	1872.000	8165.000	1872.000	8240.000	1874.000	8460.000	1874.000	8570.000	1872.000	8605.000
GR	1874.000	8670.000	1874.200	8860.000	1874.000	9015.000	1872.200	9085.000	1874.000	9135.000
GR	1874.000	9325.000	1872.000	9360.000	1872.000	9465.000	1874.000	9530.000	1874.300	9605.000
GR	1874.000	9695.000	1872.000	9810.000	1870.000	9820.000	1870.000	9835.000	1872.000	9850.000
GR	1874.000	9940.000	1872.000	9960.000	1864.000	9990.000	1864.000	10005.000	1866.000	10015.000
GR	1872.000	10040.000	1874.000	10050.000	1876.000	10160.000	1876.000	10185.000	1874.000	10215.000
GR	1874.000	10295.000	1876.000	10340.000	1876.000	10530.000	1878.000	10590.000	0.000	0.000
NC	0.042	0.037	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	7275.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	10.260	58.000	9965.000	10080.000	585.000	540.000	585.000	0.000	0.000	0.000
GR	1884.000	6035.000	1882.000	6345.000	1880.000	6475.000	1878.000	6540.000	1876.000	6580.000
GR	1874.000	6660.000	1872.300	6760.000	1872.000	6865.000	1872.000	6915.000	1872.400	7095.000
GR	1872.000	7230.000	1872.000	7255.000	1878.000	7275.000	1876.300	7345.000	1876.000	7430.000
GR	1876.000	7530.000	1870.000	7550.000	1868.000	7565.000	1870.000	7580.000	1876.000	7615.000

GR	1874.000	7745.000	1872.000	7755.000	1872.000	7785.000	1874.000	7795.000	1876.000	7810.000
GR	1877.800	7865.000	1876.000	8120.000	1876.000	8055.000	1878.000	8130.000	1878.000	8265.000
GR	1879.600	8550.000	1878.000	8870.000	1876.000	8880.000	1878.000	8895.000	1878.000	8985.000
GR	1879.500	9050.000	1878.000	9240.000	1876.400	9260.000	1878.000	9270.000	1878.000	9540.000
GR	1880.000	9560.000	1880.000	9650.000	1878.000	9725.000	1876.800	9865.000	1876.000	9965.000
GR	1868.000	9995.000	1867.700	10000.000	1866.000	10005.000	1870.000	10015.000	1870.000	10060.000
GR	1876.000	10080.000	1878.000	10135.000	1878.000	10330.000	1880.000	10445.000	1882.000	10550.000
GR	1884.000	10640.000	1884.000	10900.000	1886.000	10995.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9565.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	9.100	0.000	0.000	0.000	7500.000	0.000	6505.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1888.000	6015.000	1886.000	6025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.900	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9135.000	1881.600	9235.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.800	10675.000	1886.000	10810.000	1888.000	10835.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.10 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.470

3470 ENCROACHMENT STATIONS= 4940.0 8521.0 TYPE= 1 TARGET= 3581.000
SECNO=RIVER MILEAGE (ABOVE ADVANCED WASTEWATER TREATMENT PLANT)
CENTERLINE STATION AT 7740

9.47	9.90	1852.20	0.00	0.00	1852.59	0.39	0.00	0.00	1852.00
24000.	12953.	8137.	2909.	5520.	1020.	1454.	0.	0.	1850.70
0.00	2.35	7.98	2.00	0.052	0.027	0.060	0.000	1842.30	4540.00
0.0002275	0.	0.	0.	0	0	0	0.00	3581.00	8521.00

1490 NH CARD USED
*SECNO 9.590

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 8172

9.59	13.00	1855.00	1855.00	0.00	1855.52	0.92	1.95	0.16	1854.10
23000.	12194.	10750.	56.	4245.	991.	46.	99.	45.	1853.60
0.03	2.87	10.85	1.21	0.050	0.038	0.100	0.000	1842.00	5270.00
0.0004108	640.	670.	690.	20	16	0	0.00	2589.92	8260.00

FLOW DISTRIBUTION FOR SECNO= 9.59 CWSEL= 1855.00

STA=	5270.	5585.	6215.	6515.	7705.	8108.	8229.	8260.

PER Q=	6.2	36.3	3.3	4.4	2.8	46.7	0.2
AREA=	425.5	1763.6	867.6	880.8	307.4	998.6	46.5
VEL=	3.4	4.7	3.9	1.1	2.1	10.9	1.2

1490 NH CARD USED
*SECNO 9.750

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CCHAR	TOPWID	ENDST

3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

9.75	13.75	1859.75	1859.75	0.00	1860.61	0.86	2.93	0.01	1850.00
23000.	14584.	7233.	1183.	4854.	588.	194.	201.	106.	1850.00
0.86	3.03	12.31	6.11	0.046	0.035	0.35	0.000	1846.00	6715.34
0.003198	810.	810.	893.	20	9	0	0.00	3128.56	10106.99

1490 NH CARD USED
*SECNO 9.880

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0.0 3999.0 TYPE= 1 TARGET= 3998.999
CENTERLINE STATION AT 3935

9.88	16.45	1863.75	1863.75	0.00	1864.71	0.97	2.24	0.03	1862.60
23000.	10487.	12513.	0.	3985.	1201.	0.	285.	154.	1864.70
0.09	2.63	10.42	0.00	0.053	0.035	0.112	0.000	1847.30	742.75
0.003394	680.	680.	680.	20	13	0	0.00	3072.22	3991.18

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 10.010

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.82 MAX ELLC= 1868.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
**** CHEYENNE AVENUE ****
SINGLE CROSS SECTION NORMAL BRIDGE
CENTERLINE STATION AT 10000
2% DEBRIS LOAD
FUTURE MODELERS: IF LOW FLOW PREVAILS, MAY CONVERT TO 5-ARCH NB

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
10.01	10.64	1368.64	1363.64	0.00	1869.46	0.83	3.58	0.04	1868.90
23000.	21219.	1781.	0.	2882.	271.	0.	345.	192.	1868.90
0.12	7.36	6.58	0.00	0.042	0.035	0.040	0.000	1858.00	6670.08
0.010651	605.	735.	795.	20	10	0	-161.91	2304.17	10059.94

1490 NH CARD USED
*SECNO 10.150

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

10.15	12.71	1872.71	0.00	0.00	1873.04	0.33	3.43	0.15	1874.00
23000.	20487.	2513.	0.	4563.	446.	0.	423.	234.	1874.00
0.17	4.48	5.64	0.00	0.037	0.035	0.040	0.000	1860.00	6671.25
0.002176	845.	695.	535.	4	0	0	0.00	2060.45	10043.55

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7275.0 10995.0 TYPE= 1 TARGET= -7275.000
CENTERLINE STATION AT 10000

10.26	10.37	1878.07	1878.07	0.00	1879.14	1.08	1.86	0.22	1876.00
23000.	13378.	9441.	181.	2455.	839.	72.	480.	261.	1876.00
0.19	5.45	11.25	2.53	0.042	0.035	0.037	0.000	1867.70	7275.00
0.005086	585.	585.	540.	20	15	0	0.00	2050.21	10333.78

1490 NH CARD USED
*SECNO 10.340

3265 DIVIDED FLOW

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7900.0 10835.0 TYPE= 1 TARGET= -7900.000
CENTERLINE STATION AT 10000

10.34	12.01	1884.01	1884.01	0.00	1884.92	0.91	1.96	0.02	1882.00
23000.	10510.	9360.	3140.	3548.	831.	687.	523.	283.	1880.00
0.21	2.96	11.27	4.57	0.050	0.035	0.037	0.000	1872.00	8030.14
0.003753	450.	450.	420.	20	12	0	0.00	2225.19	10352.93

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1884.01

STA=	8030.	8600.	8875.	8975.	9185.	9635.	9775.	9965.	10055.	10190.	10310.	10353.
PER Q=	3.7	5.4	3.5	6.4	16.0	5.0	5.7	40.7	9.1	4.1	0.4	

AREA=	653.1	569.0	220.7	421.5	993.2	305.0	381.4	830.6	406.0	240.9	40.3
VEL=	1.3	2.2	3.7	3.5	3.7	3.7	3.5	11.3	5.2	3.9	2.5


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  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  31,32,33,34,35
  MODIFICATION -  50,51,52,53,54,55
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T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 500-YEAR

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        3.        0.        0.  0.000000      0.00      0.0       0.  1853.370     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

*PRCF 2

CCHV=   0.100  CEHV=   0.300
1490 NH CARD USED
*SECNO 9.470
3280 CROSS SECTION       9.47 EXTENDED       1.37 FEET

                SECNO=RIVER MILEAGE (ABOVE ADVANCED WASTEWATER TREATMENT PLANT)
                CENTERLINE STATION AT 7740
     9.47     11.07  1853.37     0.00  1853.37  1853.75     0.38     0.00     0.00  1852.00
   84000.    33236.  12621.    38144.  10578.    1242.  11394.        0.        0.  1850.70
     0.00      3.14     10.16     3.35     0.056     0.027     0.060     0.000  1842.30  4200.00
 0.002835       0.       3.        0.        0         0         0      0.00  6726.05 10926.05

1490 NH CARD USED
*SECNO 9.590

3265 DIVIDED FLOW

3280 CROSS SECTION       9.59 EXTENDED       1.10 FEET


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 8172
     9.59     15.10  1857.10  1857.10     0.00  1858.44     1.34     2.76     0.29  1854.10
   82000.    56867.   20408.    4706.   10798.    1244.    2111.     283.       85.  1853.60
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      0.02      5.27     16.43      2.23      0.055     0.035     0.100     0.000  1842.00  4780.00
 0.006924       645.      670.       690.         20        15         0      0.00  4525.56  9592.41

 FLOW DISTRIBUTION FOR SECNO=      9.59          CWSEL=   1857.10

 STA=    4780.    5400.    5585.    6215.    6845.    7580.    7705.    7835.    8009.    8108.    8225.    8714.    9592.
  PER Q=    4.9      7.2     33.5      5.3      6.1      3.5      3.3      3.6      1.8     24.9      3.5      2.2
  AREA=   939.6    748.5   3184.6   2066.1   2388.2    418.3    411.3    486.5    254.6   1244.3   1240.7    870.3
   VEL=     4.3      7.9      8.9      2.1      2.1      6.9      6.7      6.1      5.8     16.4      2.3      2.1

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TCPWIC      ENDST

 1490 NH CARD USED
 *SECNO 9.750
                    CENTERLINE STATION AT 10000
      9.75     16.25  1862.35      0.00      0.00   1862.33      0.89      4.45      0.05  1850.00
     82000.    62523.   11420.     8056.    12355.     702.     2592.      569.      170.  1850.00
      0.06      5.06     16.26      2.69     0.049     0.035     0.090     0.000  1846.00  6621.05
 0.004399       810.      810.       890.         2         0         0      0.00  4429.31 11050.36

 1490 NH CARD USED
 *SECNO 9.880

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3721 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=        0.0    3939.0  TYPE=      1  TARGET=    3958.999
                    CENTERLINE STATION AT 3935
      9.88     18.65  1865.95   1865.95      0.00   1867.44      1.49      3.59      0.18  1862.60
     82000.    57427.   24165.      408.    10847.     1504.      371.      793.      234.  1864.70
      0.08      5.29     16.07      1.10     0.054     0.131     0.107     0.000  1847.30   733.18
 0.006441       680.      680.       680.         3        12         0      0.00  3679.47  4526.00

 CCHV=    0.300  CEHV=    0.500
 1490 NH CARD USED
 *SECNO 10.010

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 1868.80 MAX ELLC= 1868.90

                    **** CHEYENNE AVENUE ****
                    SINGLE CROSS SECTION NORMAL BRIDGE
                    CENTERLINE STATION AT 10000
                    2' DEBRIS LOAD
                    FUTURE MODELERS: IF LOW FLOW PREVAILS, MAY CONVERT TO 5-ARCH NB
     10.01     13.30  1871.30      0.00      0.00   1871.55      0.69      4.31      0.24  1868.90
     82000.    76143.    3394.     2463.    11248.      568.      802.      575.      292.  1868.90
      0.11      6.77      5.98      3.07     0.045     0.035     0.056     0.000  1858.00  6256.97
 0.007267       635.      735.       795.         2         0         0  -183.50  4337.48 10594.45

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SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
&	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOP&ID	ENDST

1498 NH CARD USED
*SECNO 10.150

3265 DIVIDED FLOW

CENTERLINE STATION AT 10000

10.15	15.34	1875.34	0.00	0.00	1875.97	0.64	3.97	0.02	1874.00
82000.	75444.	6177.	419.	12130.	722.	190.	1218.	366.	1874.00
0.14	6.22	8.55	2.20	0.039	0.035	0.040	0.000	1860.00	6406.60
0.003387	845.	690.	535.	2	0	0	0.00	3847.37	10325.15

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3665 20 TRIALS ATTEMPTED &SEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

10.26	10.92	1878.62	1878.62	0.00	1880.20	1.58	2.53	0.28	1876.00
82000.	67669.	13542.	789.	7661.	903.	222.	1364.	415.	1876.00
0.16	8.83	14.99	3.55	0.042	0.035	0.037	0.000	1867.70	6519.73
0.008185	585.	585.	540.	20	13	0	0.00	3146.47	10365.87

1490 NH CARD USED
*SECNO 10.340

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED &SEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 6505.0 10835.0 TYPE= 1 TARGET= -6505.000

CENTERLINE STATION AT 10000

10.34	13.86	1885.86	1885.86	1884.31	1887.17	1.31	3.30	0.03	1882.00
82000.	52257.	16879.	12864.	10133.	998.	1775.	1476.	452.	1880.00
0.18	5.16	16.92	7.25	0.055	0.035	0.037	0.000	1872.00	6505.00
0.006694	450.	450.	420.	20	15	0	0.00	4144.37	10794.81

SECNO	DEPTH	C&SEL	CRIWS	&SELK	EG	HV	HL	CLOSS	BANK ELEV
&	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOP&ID	ENDST

FLOW DISTRIBUTION FOR SECNO= 10.34 C&SEL= 1885.86

STA=	6505.	6545.	6660.	7670.	8170.	8500.	8790.	8875.	8975.	9185.	9635.	9775.	9965.
PER Q=	4.3	3.5	3.5	3.5	3.1	4.1	3.1	3.7	7.1	16.4	5.1	6.4	
AREA=	299.6	389.5	1441.6	1222.3	562.4	1120.8	345.5	406.5	811.6	1829.2	569.1	734.3	
VEL=	11.8	7.3	2.0	2.3	2.6	3.0	7.4	7.4	7.1	7.4	7.4	7.1	

STA= 9965. 10055. 10190. 10310. 10675. 10795.

PER Q=	20.6	7.6	4.6	3.4	0.2
AREA=	997.3	656.8	463.8	597.7	63.8
VEL=	16.9	5.4	3.1	4.7	2.2


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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  5.,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.470	0.00	0.00	0.00	1842.30	24000.00	1852.20	0.00	1852.59	22.75	7.98	7994.17	5031.95
	9.470	0.00	0.00	0.00	1842.30	84000.00	1853.37	0.00	1853.75	28.35	10.16	23213.65	15774.83
•	9.590	670.00	0.00	0.00	1842.00	23000.00	1855.00	1855.00	1855.92	41.08	10.85	5281.94	3588.39
*	9.590	670.00	0.00	0.00	1842.00	82000.00	1857.10	1857.10	1858.44	69.24	16.40	14153.05	9854.66
*	9.750	810.00	0.00	0.00	1846.00	23000.00	1859.75	1859.75	1860.61	31.98	12.31	5635.15	4067.32
	9.750	810.00	0.00	0.00	1846.00	82000.00	1862.05	0.00	1862.93	43.99	16.26	16049.33	12362.81
*	9.880	680.00	0.00	0.00	1847.30	23000.00	1863.75	1863.75	1864.71	33.94	10.42	5186.86	3947.85
*	9.880	680.00	0.00	0.00	1847.30	82000.00	1865.95	1865.95	1867.44	64.41	16.07	12721.29	10217.35
•	10.010	735.00	1868.80	1868.80	1856.00	23000.00	1868.64	1868.64	1869.46	106.51	6.58	3152.55	2228.60
	10.010	735.00	1868.80	1868.80	1856.00	82000.00	1871.30	0.00	1871.99	72.67	5.98	12617.44	9619.34
	10.150	690.00	0.00	0.00	1860.00	23000.00	1872.71	0.00	1873.04	21.76	5.64	5013.48	4930.84
	10.150	690.00	0.00	0.00	1860.00	82000.00	1875.34	0.00	1875.97	33.87	8.55	13042.74	14089.56
*	10.260	585.00	0.00	0.00	1867.70	23000.00	1878.07	1878.07	1879.14	50.86	11.25	3365.80	3225.07
•	10.260	585.00	0.00	0.00	1867.70	82000.00	1878.62	1878.62	1880.20	81.85	14.99	8785.95	9063.74
*	10.340	450.00	0.00	0.00	1872.00	23000.00	1884.01	1884.01	1884.92	37.93	11.27	5065.70	3734.35
*	10.340	450.00	0.00	0.00	1872.00	82000.00	1885.86	1885.86	1887.17	66.94	16.92	12905.50	10022.41

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	9.470	24000.00	1852.20	0.00	0.00	0.00	3581.00	0.00
	9.470	84000.00	1853.37	1.17	0.00	0.00	6726.05	0.00
*	9.590	23000.00	1855.00	0.00	2.80	0.00	2989.92	670.00
*	9.590	82000.00	1857.10	2.10	3.73	0.00	4525.56	670.00

*	9.750	23000.00	1859.75	0.00	4.75	0.00	3128.96	810.00
	9.750	82000.00	1862.05	2.29	4.95	0.00	4429.31	810.00
*	9.880	23000.00	1863.75	0.00	3.99	0.00	3072.22	680.00
*	9.880	82000.00	1865.95	2.20	3.91	0.00	3679.47	680.00
*	10.010	23000.00	1868.64	0.00	4.89	0.00	2304.17	735.00
	10.010	82000.00	1871.30	2.66	5.34	0.00	4337.48	735.00
	10.150	23000.00	1872.71	0.00	4.07	0.00	2060.45	690.00
	10.150	82000.00	1875.34	2.63	4.04	0.00	3847.37	690.00
*	10.260	23000.00	1878.07	0.00	5.36	0.00	2050.21	585.00
*	10.260	82000.00	1878.62	0.56	3.29	0.00	3146.47	585.00
*	10.340	23000.00	1884.01	0.00	5.94	0.00	2225.19	450.00
*	10.340	82000.00	1885.86	1.86	7.24	1.86	4144.37	450.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 9.590 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.590 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.590 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 9.590 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.590 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.590 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 9.750 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.750 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.750 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 9.880 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.880 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.880 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 9.880 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.880 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.010 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.010 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.010 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.260 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.260 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.260 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 10.260 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.260 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.260 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.340 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 10.340 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.340 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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ECF..
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1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   7-FEB-88 TIME   20:40:52          *
 *************************************************
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*************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X         X     X           X     X
X     X  X         X                 X     X
XXXXXXX  XXXX      X           XXXXX   XXXXX
X     X  X         X                 X
X     X  X         X     X           X
X     X  XXXXXXX   XXXXX             XXXXXXX
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   7-FEB-88     20:40:52                                                    PAGE     1


  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
    ERROR CORR -  01,02,03,04,05
    MODIFICATION -  50,51,52,53,54,55
  **************************************************


  SPLIT FLOW BEING PERFORMED

  SF

  TN         25-YEAR LOB BREAKOUT U/S OF CHEYENNE AVENUE
  NS       8   10.01    10.15     9.59   0.100  0.0085
  NG       0 1868.9        60 1868.0      130 1870.0      135 1876.0      630 1878.0
  NG     635 1872.0       785 1874.0      925 1874.3
1
   7-FEB-88     20:40:52                                                    PAGE     2

  C
  T1         CCRFCD/COE OVERFLOW STUDY
  T2         JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
  T3         LAS VEGAS WASH - 25-YEAR
  J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.         2.         0.         0.   0.006000       0.00       0.0        0.        0.000      0.000
  J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
       -1.000     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
  J3  VARIABLE CODES FOR SUMMARY PRINTOUT
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	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	1.000	6200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6215.000	0.130	7580.000	0.040	8108.000	0.035	8229.000	0.100
NH	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8078.000	8291.000	0.000	0.000
		SECNO=River Mileage (above FIS xM)								
		Centerline Station at 8172								
X1	9.590	56.000	8108.000	8229.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1856.000	4780.000	1856.000	5140.000	1854.000	5400.000	1852.100	5585.000	1852.300	6215.000
GR	1854.000	6270.000	1854.000	6385.000	1852.900	6465.000	1854.000	6510.000	1854.000	6845.000
GR	1852.500	6915.000	1854.000	6995.000	1854.000	7580.000	1853.500	7705.000	1854.000	7740.000
GR	1854.000	7835.000	1854.600	8009.000	1854.600	8078.000	1854.100	8108.000	1853.900	8119.000
GR	1844.300	8145.000	1843.700	8155.000	1842.700	8168.000	1842.000	8172.000	1842.800	8178.000
GR	1842.700	8187.000	1843.800	8200.000	1853.600	8229.000	1853.400	8260.000	1855.700	8251.000
GR	1854.900	8307.000	1854.600	8363.000	1854.400	8403.000	1854.600	8448.000	1855.200	8469.000
GR	1854.300	8505.000	1854.600	8538.000	1854.800	8555.000	1854.800	8588.000	1853.800	8714.000
GR	1854.400	8739.000	1854.300	8826.000	1853.400	8867.000	1855.400	8899.000	1857.600	8925.000
GR	1858.100	8950.000	1856.600	9015.000	1856.600	9037.000	1856.600	9061.000	1856.600	9072.000
GR	1858.000	9345.000	1856.000	9425.000	1855.000	9540.000	1856.000	9565.000	1858.000	9615.000
GR	1860.000	9665.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	6.000	0.040	9785.000	0.130	9540.000	0.035	9615.000	0.130	9940.000	0.035
NH	10115.000	0.130	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Centerline Station at 10000								
X1	9.750	41.000	9975.000	10025.000	810.000	890.000	910.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9900.000	1860.600	10135.000	1860.300	0.000	0.000	0.000
GR	1864.000	6460.000	1862.000	6625.000	1860.000	6695.000	1858.000	6860.000	1859.500	7600.000
GR	1858.000	8070.000	1856.000	8120.000	1856.000	8215.000	1858.000	8275.000	1858.000	8785.000
GR	1858.000	9355.000	1856.800	9415.000	1858.000	9440.000	1858.800	9505.000	1858.000	9540.000
GR	1852.000	9562.000	1849.600	9575.000	1852.000	9587.000	1860.000	9615.000	1960.000	9745.000
GR	1859.000	9805.000	1960.000	9830.000	1860.600	9900.000	1860.000	9940.000	1850.000	9975.000
GR	1846.000	10000.000	1950.000	10025.000	1858.000	10050.000	1860.000	10115.000	1860.300	10135.000
GR	1860.000	10155.000	1955.300	10200.000	1858.000	10365.000	1860.000	10395.000	1962.000	10520.000
GR	1860.000	10780.000	1858.000	10815.000	1859.000	10945.000	1860.000	11040.000	1862.000	11050.000
GR	1864.000	11065.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NH	8.000	0.040	2572.000	0.130	3143.000	0.035	3232.000	0.130	3860.000	0.035
NH	3999.000	0.130	4420.000	0.050	4910.000	0.130	5275.000	0.000	0.000	0.000
		Centerline Station at 3935								
X1	9.880	89.000	3860.000	3999.000	680.000	680.000	680.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	3931.000	1863.400	3939.000	1864.700	0.000	0.000	0.000
GR	1883.400	668.000	1870.600	713.000	1863.000	746.000	1863.000	816.000	1862.500	851.000
GR	1862.300	908.000	1963.300	952.000	1863.200	981.000	1863.200	1017.000	1863.400	1050.000
GR	1862.300	1096.000	1862.600	1125.000	1862.100	1160.000	1862.900	1234.000	1863.700	1302.000
GR	1863.400	1385.000	1963.800	1461.000	1861.900	1533.000	1861.100	1607.000	1861.500	1657.000
GR	1861.500	1773.000	1862.600	1858.000	1862.800	1933.000	1862.500	2021.000	1863.200	2088.000
GR	1861.900	2185.000	1862.800	2245.000	1862.900	2295.000	1863.300	2322.000	1863.300	2379.000
GR	1863.400	2451.000	1862.800	2523.000	1861.200	2564.000	1862.700	2572.000	1862.400	2604.000
GR	1862.300	2655.000	1962.700	2710.000	1862.100	2745.000	1861.200	2797.000	1861.500	2846.000
GR	1864.000	2879.000	1862.400	2947.000	1860.000	2978.000	1860.200	3004.000	1859.900	3027.000
GR	1860.700	3045.000	1862.400	3120.000	1862.000	3143.000	1856.500	3155.000	1852.800	3164.000
GR	1852.200	3170.000	1852.300	3175.000	1863.600	3194.000	1863.900	3232.000	1863.900	3277.000
GR	1862.300	3305.000	1962.200	3344.000	1863.900	3423.000	1863.900	3491.000	1862.700	3557.000
GR	1862.200	3574.000	1962.200	3616.000	1861.700	3666.000	1861.600	3704.000	1861.600	3731.000
GR	1861.200	3744.000	1862.900	3784.000	1863.400	3831.000	1862.600	3860.000	1859.700	3886.000
GR	1851.000	3892.000	1849.200	3910.000	1847.300	3935.000	1852.500	3958.000	1861.900	3976.000
GR	1864.700	3999.000	1864.000	4029.000	1863.100	4086.000	1861.400	4108.000	1861.700	4127.000
GR	1860.000	4144.000	1863.900	4177.000	1866.200	4263.000	1866.000	4360.000	1864.400	4420.000
GR	1866.000	4530.000	1867.200	4910.000	1868.000	5020.000	1870.000	5275.000	0.000	0.000

NC	0.300	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000	0.000
NH	0.000	0.037	5615.000	0.130	7040.000	0.037	8560.000	0.035	8660.000	0.040	
NH	9520.000	0.130	9775.000	0.035	10064.000	0.040	10295.000	0.130	11145.000	0.000	
ET	0.000	7.100	0.000	0.000	0.000	0.000	9544.000	10150.000	0.000	0.000	

****** Cheyenne Avenue ******
Single Cross Section Normal Bridge
Centerline Station at 10000
2* Debris Load

X1	10.010	65.000	9944.000	10064.000	605.000	795.000	735.000	0.000	0.000	0.000
RT	4.000	9944.000	1868.900	1868.900	9968.200	1868.200	1866.800	10031.700	1868.800	1866.800
BT	10064.000	1868.900	1868.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1878.000	5330.000	1876.000	5505.000	1876.000	5615.000	1876.000	5685.000	1874.000	5755.000
GR	1872.000	6155.000	1870.000	6445.000	1868.000	6775.000	1866.000	6860.000	1865.800	6900.000
GR	1866.000	6950.000	1867.200	6995.000	1866.000	7040.000	1866.000	7085.000	1868.000	7120.000
GR	1869.100	7150.000	1868.000	7165.000	1866.000	7175.000	1864.000	7195.000	1864.000	7225.000
GR	1866.000	7250.000	1868.000	7260.000	1870.000	7600.000	1870.000	7925.000	1868.000	8220.000
GR	1867.600	8560.000	1960.000	8570.000	1858.000	8600.000	1858.100	8610.000	1868.000	8660.000
GR	1869.300	8750.000	1868.000	9105.000	1867.500	9350.000	1868.000	9520.000	1868.000	9775.000
GR	1867.500	9850.000	1868.900	9944.000	1866.800	9968.200	1859.600	9968.300	1859.600	9975.700
GR	1866.300	9975.800	1866.800	9982.200	1859.600	9982.300	1859.600	9589.700	1866.800	9985.800
GR	1866.300	9996.000	1859.600	9996.100	1859.600	10003.700	1866.800	10003.800	1866.800	10010.200
GR	1859.600	10010.300	1859.600	10017.600	1866.800	10017.700	1865.800	10024.100	1859.600	10024.200
GR	1859.600	10031.600	1866.800	10031.700	1868.900	10064.000	1870.000	10295.000	1870.000	10575.000
GR	1872.000	10605.000	1874.000	10625.000	1874.000	10965.000	1876.000	11135.000	1878.000	11145.000

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NH	5.000	0.037	8670.000	0.100	9465.000	0.040	9940.000	0.035	10050.000	0.040
NH	10590.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9605.000	10160.000	0.000	0.000

Centerline Station at 10000

X1	10.150	49.000	9940.000	10050.000	845.000	535.000	690.000	0.000	0.000	0.000
GR	1878.000	6160.000	1876.000	6400.000	1874.000	6420.000	1874.000	6610.000	1872.000	6705.000
GR	1870.000	6900.000	1868.000	7000.000	1868.000	7360.000	1870.000	7480.000	1872.000	7610.000
GR	1871.700	7910.000	1870.000	8075.000	1860.000	8100.000	1860.000	8110.000	1870.000	8145.000
GR	1872.000	8165.000	1872.000	8240.000	1874.000	8460.000	1874.000	8570.000	1872.000	8605.000
GR	1874.000	8670.000	1874.200	8860.000	1874.000	9015.000	1872.200	9085.000	1874.000	9135.000
GR	1874.000	9325.000	1872.000	9360.000	1872.000	9465.000	1874.000	9530.000	1874.300	9605.000
GR	1874.000	9695.000	1872.000	9810.000	1870.000	9820.000	1870.000	9835.000	1872.000	9850.000
GR	1874.000	9940.000	1872.000	9960.000	1864.000	9990.000	1864.000	10005.000	1866.000	10015.000
GR	1872.000	10040.000	1874.000	10050.000	1876.000	10160.000	1876.000	10185.000	1874.000	10215.000
GR	1874.000	10295.000	1876.000	10340.000	1876.000	10530.000	1878.000	10590.000	0.000	0.000

NC	0.342	0.037	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
RT	1.000	5300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9567.000	0.000	0.000	0.000

Centerline Station at 10000

X1	10.260	58.000	9965.000	10080.000	585.000	540.000	585.000	0.000	0.000	0.000
GR	1884.000	6005.000	1882.000	6345.000	1880.000	6475.000	1878.000	6540.000	1876.000	6580.000
GR	1874.000	6660.000	1872.300	6760.000	1872.000	6865.000	1872.000	6915.000	1872.400	7095.000
GR	1872.000	7230.000	1872.000	7255.000	1878.000	7275.000	1876.300	7345.000	1876.000	7430.000
GR	1876.000	7530.000	1870.000	7550.000	1868.000	7565.000	1870.000	7580.000	1876.000	7615.000
GR	1874.000	7745.000	1872.000	7755.000	1872.000	7785.000	1874.000	7795.000	1876.000	7810.000
GR	1877.800	7865.000	1876.000	8020.000	1876.000	8055.000	1878.000	8130.000	1878.000	8265.000
GR	1879.000	8550.000	1878.000	8870.000	1876.000	8880.000	1878.000	8895.000	1878.000	8985.000
GR	1879.500	9050.000	1878.000	9240.000	1876.400	9260.000	1878.000	9270.000	1878.000	9540.000
GR	1880.000	9560.000	1880.000	9650.000	1878.000	9725.000	1876.800	9865.000	1876.000	9965.000
GR	1868.000	9995.000	1867.700	10000.000	1868.000	10005.000	1870.000	10015.000	1870.000	10060.000
GR	1876.000	10080.000	1878.000	10135.000	1878.000	10330.000	1880.000	10445.000	1882.000	10550.000
GR	1884.000	10640.000	1884.000	10900.000	1886.000	10995.000	0.000	0.000	0.000	0.000

NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9965.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9965.000	0.000	0.000	0.000

Centerline Station at 10000

X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1888.000	6015.000	1886.000	6025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.000	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.300	10675.000	1886.000	10910.000	1888.000	10935.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 9.590
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3470 ENCROACHMENT STATIONS= 8078.0 8291.0 TYPE= 1 TARGET= 213.000
SECNO=River Mileage (above FIS xM)
Centerline Station at 8172

9.59	9.16	1851.16	0.00	1851.16	1852.95	1.79	0.00	0.00	1854.10
6200.	0.	6200.	0.	0.	577.	0.	0.	0.	1853.60
0.00	0.00	10.75	0.00	0.040	0.035	0.100	0.000	1842.00	8126.83
0.005985	0.	0.	0.	0	0	19	0.00	54.96	8221.78

3
FLOW DISTRIBUTION FOR SECNO= 9.59 CWSEL= 1851.16

STA= 8127. 8229.
PER Q= 100.0
AREA= 576.9
VEL= 10.7

1490 NH CARD USED
*SECNO 9.750

3470 ENCROACHMENT STATIONS= 9901.0 10135.0 TYPE= 1 TARGET= 235.000
ELENCL= 1860.60 ELENCR= 1860.30
Centerline Station at 10000

9.75	9.66	1855.66	0.00	1855.66	1857.83	2.16	4.76	0.11	1850.00
5410.	352.	4746.	312.	56.	383.	50.	10.	2.	1850.00
0.02	6.26	12.38	6.23	0.035	0.035	0.035	0.000	1846.00	9955.17
0.005725	810.	810.	890.	2	0	0	0.00	87.53	10042.70

3
1490 NH CARD USED
*SECNO 9.880

3301 HV CHANGED MORE THAN HVIAS

3470 ENCROACHMENT STATIONS= 3831.0 3999.0 TYPE= 1 TARGET= 168.000
ELENCL= 1863.40 ELENCR= 1864.70

1

Centerline Station at 3935

9.88	11.93	1859.23	0.00	1859.23	1860.10	0.88	2.15	0.13	1862.60
5410.	0.	5410.	0.	0.	720.	0.	19.	3.	1864.70
0.04	0.00	7.52	0.00	0.035	0.035	0.035	0.000	1847.30	3886.33
0.001996	680.	680.	680.	3	0	0	0.00	84.55	3970.88

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 10.310

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 1868.80 MAX ELLC= 1868.90

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9944.0 10150.0 TYPE= 1 TARGET= 206.000

**** Cheyenne Avenue ****
Single Cross Section Normal Bridge
Centerline Station at 10000
2* Debris Load

10.01	10.87	1870.47	1870.47	1870.47	1871.84	1.37	3.59	0.25	1868.50
5410.	0.	4565.	845.	0.	469.	113.	30.	6.	1868.90
0.07	0.00	9.74	7.19	0.035	0.035	0.040	0.000	1859.60	9944.00
0.025098	605.	735.	795.	22	10	0	-183.50	206.00	10150.00

1490 NH CARD USED
*SECNO 10.150

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9605.0 10160.0 TYPE= 1 TARGET= 555.000

Centerline Station at 10000

10.15	10.89	1874.89	0.00	1874.89	1875.38	0.48	3.27	0.27	1874.00
6200.	1867.	4311.	22.	626.	673.	22.	46.	11.	1874.00
0.10	2.98	6.40	0.99	0.040	0.035	0.040	0.000	1864.00	9605.00
0.002086	945.	690.	535.	2	0	0	0.00	494.22	10099.22

CCHV= 0.100 CEHV= 0.300
*SECNO 10.260

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9560.0 10995.0 TYPE= 1 TARGET= -9560.000

Centerline Station at 10000

10.26	8.41	1876.11	0.00	1876.11	1877.27	1.16	1.68	0.20	1876.00
5300.	0.	5300.	0.	1.	614.	0.	59.	16.	1876.00
0.12	0.33	8.64	0.38	0.042	0.035	0.037	0.000	1867.70	9951.89
0.004550	585.	585.	540.	2	0	0	0.00	130.99	10082.88

1490 NH CARD USED
*SECNO 10.340

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9965.0 10835.0 TYPE= 1 TARGET= -9965.000

Centerline Station at 10000

10.34	7.18	1879.18	1879.18	1879.18	1881.79	2.60	3.01	0.43	1882.00		
5300.	0.	5300.	0.	0.	409.	0.	65.	17.	1880.00		
0.13	0.00	12.94	0.00	0.042	0.035	0.037	0.000	1872.00	9973.45		
0.010762	450.	450.	420.	20	12	0	0.00	79.00	10052.45		

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1879.18

STA= 9973. 10055.
PER Q= 100.0
AREA= 409.5
VEL= 12.9

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TN 25-YEAR LOB BREAKOUT U/S OF CHEYENNE AVENUE

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
453.6	1.74	2.76	1.07	925.0	422.2

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
790.38	790.32	0.01	790.38	790.32	0.01	5	1870.472	1874.895	10.010	10.150

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.590	0.00	0.00	0.00	1842.00	6200.00	1851.16	0.00	1852.95	59.85	10.75	576.95	801.39
	9.750	810.00	0.00	0.00	1846.00	5409.62	1855.66	0.00	1857.83	57.25	12.38	489.50	714.94
	9.880	680.00	0.00	0.00	1847.30	5409.62	1859.23	0.00	1860.10	19.96	7.52	719.72	1210.76
*	10.010	735.00	1868.80	1859.90	1859.60	5409.62	1870.47	1870.47	1871.84	250.98	9.74	586.11	341.46
	10.150	690.00	0.00	0.00	1864.00	6200.00	1874.89	0.00	1875.38	20.86	6.40	1321.75	1357.60
	10.260	585.00	0.00	0.00	1867.70	5300.00	1876.11	0.00	1877.27	45.50	8.64	614.40	785.74
*	10.340	450.00	0.00	0.00	1872.00	5300.00	1879.18	1879.18	1881.79	107.62	12.94	409.47	510.89

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LAS VEGAS WASH - 25-YE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.590	6200.00	1851.16	0.00	0.00	0.00	94.96	0.00
9.750	5409.62	1855.66	0.00	4.50	0.00	87.53	810.00
9.880	5409.62	1859.23	0.00	3.56	0.00	84.55	680.00
10.010	5409.62	1870.47	0.00	11.25	0.00	206.00	735.00
10.150	6200.00	1874.89	0.00	4.42	0.00	494.22	690.00
10.260	5300.00	1876.11	0.00	1.21	0.00	130.99	585.00
10.340	5300.00	1879.18	0.00	3.08	0.00	79.00	450.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=   10.010  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   10.010  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   10.010  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   10.340  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   10.340  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   10.340  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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EOF..

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SF
TN          25-YEAR LOB BREAKOUT U/S OF CHEYENNE AVENUE
NS      8    10.01    10.15     9.59    0.100   0.0085
NG      0  1868.9       60  1868.0      130  1870.0      135  1876.0      630  1878.0
NG    635  1872.0      735  1874.0      925  1874.3
SE
CO
CO
CO
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GR1863.4	001355	1863.8	001461	1851.9	001533	1861.1	001607	1861.5	001697	
GR1861.5	001773	1862.6	001858	1852.8	001933	1862.5	002021	1863.2	002088	
GR1861.9	002135	1862.8	002245	1852.9	002295	1863.3	002322	1863.3	002379	
GR1863.4	002451	1862.8	002523	1851.2	002564	1862.7	002572	1862.4	002604	
GR1862.3	002655	1862.7	002710	1852.1	002745	1861.2	002797	1861.5	002846	
GR1864.0	002879	1862.4	002947	1850.0	002978	1860.2	003004	1859.9	003027	
GR1860.7	003045	1862.4	003120	1852.0	003143	1856.5	003155	1852.8	003164	
GR1852.2	003170	1852.3	003175	1863.6	003194	1863.9	003232	1863.9	003277	
GR1862.3	003305	1862.2	003344	1863.9	003423	1863.9	003491	1862.7	003557	
GR1862.2	003574	1862.2	003615	1851.7	003666	1861.6	003704	1861.6	003731	
GR1861.2	003744	1862.9	003784	1863.4	003831	1862.6	003860	1859.7	003886	
GR1851.0	003892	1849.2	003910	1847.3	003935	1852.5	003958	1861.9	003976	
GR1864.7	003999	1864.0	004029	1853.1	004086	1861.4	004108	1861.7	004127	
GR1860.9	004144	1863.9	004177	1866.2	004263	1866.0	4360	1864.4	4420	
GR1866.0	4530	1867.2	4910	1868.0	5020	1870.0	5275			
VC			0.3		0.5					
VH	9	0.037	5615	0.13	7040	0.037	8560	0.035	8660	0.040
VH	9520	0.13	9775	0.035	10064	0.040	10295	0.13	11145	
ET		7.1					9944	10150		
K1	10.01	65	9944	10064	605	795	735			
BT	4	9944	1868.9	1869.9	9958.2	1868.8	1866.8	10031.7	1868.8	1866.8
RT	10064	1868.9	1868.9							
GR1878.0	5330	1876.0	5505	1876.1	5615	1876.0	5685	1874.0	5795	
GR1872.0	6155	1870.0	6445	1868.0	6775	1866.0	6860	1865.8	6905	
GR1866.0	6950	1867.2	6955	1856.0	7040	1866.0	7085	1868.0	7120	
GR1869.1	7150	1868.0	7165	1856.0	7175	1864.0	7195	1864.0	7225	
GR1866.0	7250	1868.0	7260	1870.0	7600	1870.0	7925	1868.0	8220	
GR1867.6	8560	1868.0	8570	1858.0	8600	1858.1	8610	1868.0	8660	
GR1869.8	9750	1868.0	9105	1867.5	9350	1868.0	9520	1868.0	9775	
GR1867.5	9850	1868.9	9944	1856.8	9968.2	1859.6	9968.3	1859.6	9975.7	
GR1866.8	9975.8	1866.8	9982.2	1859.6	9982.3	1859.6	9989.7	1866.8	9985.8	
GR1866.8	9996.0	1859.6	9996.1	1859.6	10003.7	1866.8	10003.8	1866.8	10010.2	
GR1859.6	10010.3	1859.6	10017.6	1856.8	10017.7	1866.8	10024.1	1859.6	10024.2	
GR1859.6	10031.6	1866.8	10031.7	1868.9	10064	1870.0	10295	1870.0	10575	
GR1872.0	10605	1874.0	10625	1874.0	10965	1876.0	11135	1878.0	11145	
VH	5	0.037	8670	0.10	9465	0.040	9940	0.035	10050	0.040
VH	10590									
ET		7.1					9605	10160		
K1	10.15	49	9940	10050	845	535	690			
GR1878.0	6160	1876.0	6400	1874.0	6420	1874.0	6610	1872.0	6705	
GR1870.0	6900	1868.0	7000	1868.0	7360	1870.0	7480	1872.0	7610	
GR1871.7	7910	1870.0	8075	1850.0	8100	1860.0	8110	1870.0	8145	
GR1872.0	8165	1872.0	8240	1874.0	8460	1874.0	8570	1872.0	8605	
GR1874.0	8670	1874.2	8860	1874.0	9015	1872.2	9035	1874.0	9135	
GR1874.0	9325	1872.0	9360	1872.0	9465	1874.0	9530	1874.3	9605	
GR1874.0	9695	1872.0	9810	1870.0	9820	1870.0	9835	1872.0	9850	
GR1874.0	9940	1872.0	9960	1864.0	9990	1864.0	10015	1866.0	10015	
GR1872.0	10040	1874.0	10050	1876.0	10160	1876.0	10135	1874.0	10215	
GR1874.0	10295	1876.0	10340	1876.0	10530	1878.0	10590			
VC	0.042	0.037	0.035	0.1	0.3					
BT	1	5300								
ET		7.1					9560			
K1	10.26	58	9965	10060	585	540	585			
GR1884.0	6005	1882.0	6345	1880.0	6475	1878.0	6540	1876.0	6580	
GR1874.0	6660	1872.3	6760	1872.0	6865	1872.0	6915	1872.4	7095	
GR1872.0	7230	1872.0	7255	1878.0	7275	1876.3	7345	1876.0	7430	
GR1876.0	7530	1870.0	7550	1868.0	7565	1870.0	7580	1876.0	7615	
GR1874.0	7745	1872.0	7755	1872.0	7785	1874.0	7795	1876.0	7810	
GR1877.8	7965	1876.0	8020	1876.0	8055	1878.0	8130	1878.0	8265	
GR1879.8	8550	1878.0	8870	1876.0	8880	1878.0	8895	1878.0	8985	
GR1879.5	9050	1878.0	9240	1876.4	9260	1878.0	9270	1878.0	9540	
GR1880.0	9560	1880.0	9650	1878.0	9725	1876.8	9855	1876.0	9965	
GR1868.0	9995	1867.7	10000	1868.0	10005	1870.0	10015	1870.0	10060	
GR1876.0	10080	1878.0	10135	1878.0	10330	1880.0	10445	1882.0	10550	
GR1884.0	10640	1884.0	10900	1886.0	10995					
VH	5	0.04	6660	0.10	8790	0.042	9965	0.035	10055	0.037
VH	10835									
ET		7.1					9965			

```
K1 10.34        53      9965    10055      450      420      450
K2                                                              15
GR1888.0     6015  1886.0     6025  1884.0     6075  1882.0     6295  1880.0     6315
GR1878.9     6420  1880.0     6480  1883.0     6505  1880.0     6515  1876.0     6535
GR1876.0     6545  1882.0     6560  1884.0     6660  1886.0     6925  1884.0     7025
GR1884.0     7110  1886.0     7210  1886.0     7320  1884.0     7380  1884.0     7445
GR1882.0     7460  1881.3     7480  1882.0     7505  1884.0     7670  1882.0     7685
GR1882.0     7775  1884.0     7905  1884.2     7900  1884.0     8035  1882.7     8100
GR1884.0     8170  1884.3     8215  1884.0     8270  1882.0     8390  1881.6     8450
GR1882.0     8500  1882.0     8600  1882.0     8790  1881.6     8875  1882.0     8975
GR1882.0     9135  1881.6     9635  1882.0     9775  1882.0     9965  1872.0     9995
GR1872.0    10330  1880.0    10055  1882.0    10190  1882.0    10310  1884.0    10350
GR1884.8    10675  1886.0    10810  1888.0    10835
EJ


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SF
TN          LOB BREAKOUT D/S OF I-15
NS       4   10.55  10.665   10.34    0.037   0.0040
NG       0 1895.9       10  1896.0      260  1898.0      500  1899.0
E
      31
   10.34        SECNO=River Mileage above Advanced Wastewater Treatment Plant
   10.34        Centerline Station at 10000
   10.46        Centerline Station at 10000
   10.49        Centerline Station at 5188
   10.54        Centerline Station at 10000
   10.55        **** Civic Center Drive (new structure) ****
   10.55        Normal Bridge
   10.55        1° Debris Load
   10.55        Centerline Station at 10300
   10.62        Centerline Station at 10000
  10.627        Centerline Station at 10000
  10.634        Centerline Station at 10000
  10.642        Centerline Station at 10000
  10.649        Centerline Station at 10000
  10.650        Centerline Station at 10000
  10.657        Centerline Station at 10000
  10.659        **** Drop Structure ****
  10.658        Centerline Station at 10300
  10.665        Centerline Station at 10000
  10.686        Centerline Station at 10000
  10.686        500-Year LOB Breakout of 5,000 cfs d/s of I-15 (rejoins main
  10.686          channel at x10.34): breakout flow determined by a flow
  10.686          distribution at I-15
  10.697        **** I-15 North ****
  10.697        2° Debris Load
  10.697        Centerline Station at 10300
   10.70        Centerline Station at 10000
   10.71        **** I-15 South ****
   10.71        2° Debris Load
   10.71        Centerline Station at 10300
   10.74        Centerline Station at 2355
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 100-YEAR
J1                2                -1
J2     -1               -1
J3    150
QT       1   82000
NC                              0.1      0.3
NH       5    0.04     6660    0.10     8790   0.042     9965   0.035    10055   0.037
NH   10835
X1   10.34      53     9965   10055      450     420      450                             15
X2
GR1888.0     6015  1886.0     6025  1884.0     6075  1882.0     6295  1880.0     6315
GR1878.9     6420  1880.0     6480  1883.0     6505  1880.0     6515  1876.0     6535
GR1876.0     6545  1882.0     6569  1884.0     6660  1886.0     6925  1884.0     7025
GR1884.0     7110  1886.0     7210  1886.0     7320  1884.0     7380  1884.0     7445
GR1882.0     7460  1881.3     7480  1882.0     7505  1884.0     7670  1882.0     7685
GR1892.0     7775  1884.0     7805  1884.2     7900  1884.0     8035  1882.7     8100
GR1884.0     8170  1884.3     8215  1884.0     8270  1882.0     8390  1881.6     8450
GR1882.0     8500  1882.0     8600  1882.0     8790  1881.6     8975  1882.0     8975
GR1892.0     9185  1881.6     9635  1882.0     9775  1882.0     9965  1872.0     9995
GR1872.0    10030  1880.0    10055  1882.0    10190  1882.0    10310  1884.0    10350
GR1884.8    10675  1886.0    10819  1888.0    10835
QT       1   77000
NH       4    0.10     9895   0.042     9905   0.035    10020   0.037    10575
X1   10.46      28     9905   10020      600     700      600
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K2                                                                      15
GR1890.0    7310  1886.0    7375  1886.0    7420  1888.0    7445  1888.0    7680
GR1888.0    8085  1888.0    8515  1887.2    8750  1886.0    8925  1886.0    8975
GR1886.6    9215  1886.0    9390  1884.0    9450  1883.3    9695  1884.0    9815
GR1885.1    9870  1884.0    9960  1882.0    9900  1880.0    9905  1878.0    9970
GR1876.1   10000  1878.0   10010  1880.0   10020  1882.0   10075  1884.0   10155
GR1886.0   10275  1888.0   10425  1890.0   10575
NC 0.042    0.037   0.035
X1 10.49       27    9975   10015     250     140     170
K2                                                                      15
GR1892.0    7615  1886.0    7635  1886.0    7650  1888.0    7680  1890.0    7890
GR1890.6    8075  1890.0    8505  1888.0    8975  1888.0    9215  1886.0    9420
GR1884.0    9640  1884.0    9960  1884.1    9890  1884.0    9925  1880.0    9935
GR1880.0    9975  1878.0    9995  1877.0   10000  1878.0   10005  1880.0   10015
GR1884.0   10035  1884.0   10170  1886.0   10260  1886.0   10325  1888.0   10360
GR1890.0   10430  1892.0   10705
NC                  0.3       0.5
X1 10.54       33    9934   10077     270.    220.     260.
BT     9    9450  1890.7  1890.7    9480  1891.6  1890.0    9520  1890.0  1888.0
BT  9700  1888.5  1886.0    9934  1887.7  1886.0  9938.9  1887.7  1885.7 10061.1
BT1888.8  1885.7   10077  1889.0  1888.0   10225  1890.0  1890.0
GR1894.0    7630  1892.0    7735  1890.0    7800  1888.0  7825.0  1888.0    7875
GR1890.0    7950  1892.0    7990  1892.0    8410  1890.0    8940  1890.0    9380
GR1890.7    9450  1890.     9480  1888.     9520  1886.     9700  1886.0    9934
GR1885.7  9939.9  1881.9    9939  1877.8    9956  1877.8  9974.5  1885.7  9974.6
GR1885.7    9977.5  1877.8    9977.6  1877.8  10022.5  1885.7  10022.6  1885.7  10025.3
GR1877.8  10025.4  1877.8  10043.8  1881.9   10061  1885.7  10061.1  1888.0   10077
GR 1890.    10225  1892.    10680  1894.0   11050
X1 10.55       37    9928   10075      82.     82.     82.
BT     8    9525  1890.0  1890.0    9565  1888.8  1888.0    9825  1888.0  1886.1
BT  9928  1887.2  1886.0  9938.9  1887.7  1885.9  10061.1  1888.8  1885.9   10075
BT1889.0  1888.0   10210  1890.0  1890.0
GR1896.0    7505  1894.0    7645  1892.0    7735  1890.0    7780  1888.0    7805
GR1888.0    7835  1890.0    7890  1892.0    7980  1893.1    8260  1892.0    8595
GR1890.0    9810  1890.0    9210  1892.0    9290  1890.0    9345  1890.7    9475
GR 1890.    9505   1888.    9565  1886.1    9825.  1886.0    9928  1885.9  9938.9
GR1882.1    9939  1878.0    9956  1878.0  9974.5  1885.9  9974.6  1885.9  9977.5
GR1878.0  9977.6  1878.0  10022.5  1885.9  10022.6  1885.9  10025.3  1878.0  10025.4
GR1876.0  10043.8  1882.1   10061  1885.9  10061.1  1888.0   10075   1890.   10210
GR 1892.    10555  1894.0   11020
NH     7    0.037    9849   0.035    9966   0.025   10020   0.035   10095   0.037
NH10100     0.10   11100   0.035   11275
X1 10.62       37    9966   10020     320     245     335
K2                                                                      15
GR1898.0    7620  1896.0    7630  1894.0    7665  1892.5    7710  1894.0    7795
GR1894.0    7885  1896.0    7975  1897.3    8035  1896.0    8109  1894.0    8429
GR1893.0    8549  1894.0    9104  1896.0    9139  1896.0    9204  1894.5    9224
GR1893.7    9275  1894.4    9308  1893.7    9359  1894.2    9391  1893.2    9554
GR1892.5    9849  1892.0    9851  1892.0    9936  1891.7    9966  1875.7  9997.5
GR1875.7  10002.5  1884.2   10020  1890.0   10082  1892.0   10095  1894.0   10100
GR1894.0   10255  1896.8   10590  1894.0   10805  1896.0   10815  1896.0   11025
GR1898.0   11100  1900.0   11275
NH     5    0.037    9965   0.025   10020   0.037   10068    0.10   11050   0.037
NH 11390
X110.627       36    9965   10020      62      62      62
GR1898.8    7500  1898.0    7605  1896.0    7635  1894.0    7670  1892.9    7705
GR1894.0    7775  1894.0    7880  1896.0    7975  1897.5    8035  1896.0    8130
GR1894.0    8450  1893.4    8540  1894.0    8970  1896.0    9145  1898.2    9175
GR1896.0    9255  1896.0    9605  1894.0    9695  1892.0    9740  1892.4    9965
GR1875.9  9997.5  1875.9  10002.5  1884.4   10020  1885.0   10050  1886.0   10060
GR1887.0   10068  1890.0   10085  1892.0   10095  1894.0   10105  1894.0   10255
GR1896.0   10540  1896.0   10810  1896.0   11010  1898.0   11050  1900.0   11250
GR1902.0   11390
NH     5    0.037    9935   0.025   10060   0.037   10100    0.10   11045   0.037
NH11375
X110.634       34    9935   10060      38      38      38
GR1898.9    7525  1898.0    7630  1896.0    7660  1894.0    7685  1893.1    7715
GR1894.0    7785  1894.0    7895  1896.0    7990  1897.7    8045  1896.0    8150
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GR1894.0    9470   1893.6    9540   1894.0    9540   1896.0    9160   1898.0    9155
GR1896.0    9605   1894.0    9685   1892.0    9770   1891.4    9935   1876.4    9965
GR1876.1   10000   1876.4   10035   1887.0   10060   1888.0   10068   1890.0   10090
GR1892.0   10100   1894.0   10110   1894.0   10245   1896.0   10545   1896.0   10805
GR1896.0   10960   1898.0   11045   1900.0   11195   1902.0   11375
NH      5  0.037     9935   0.018    10055   0.037    10105   0.10     10975   0.037
NH 11375
X110.642       35     9935    10055       40       40       40
GR1899.8     7600   1898.0     7655   1896.0     7665   1894.0     7680   1893.5     7710
GR1894.0     7760   1894.5     7890   1896.0     7990   1898.0     8050   1896.0     8165
GR1894.0     8525   1894.0     8825   1896.0     9155   1898.0     9195   1898.0     9435
GR1896.0     9590   1894.0     9680   1889.5     9935   1886.5     9945   1876.5     9965
GR1876.2   10000   1876.5   10035   1886.5   10055   1887.0   10056   1888.0   10064
GR1890.0   10072   1892.0   10105   1894.0   10120   1894.0   10220   1896.0   10330
GR1896.0   10550   1896.0   10925   1898.0   10975   1900.0   11120   1902.0   11375
NH      5  0.037     9945   0.018    10058   0.037    10083   0.10     10975   0.037
NH 11380
X110.649       34   9956.9  10043.1       39       39       39
GR1899.6     7520   1898.0     7635   1896.0     7670   1894.3     7720   1895.2     7900
GR1896.0     7975   1898.0     8040   1898.6     8070   1898.0     8130   1896.0     8200
GR1894.4     8540   1896.0     9075   1898.0     9215   1898.0     9485   1896.0     9620
GR1894.0     9690   1892.0     9930   1886.5     9945   1886.3   9956.9   1876.8     9957
GR1876.3   10000   1876.8   10043   1886.3  10043.1   1886.5   10048   1887.0   10058
GR1888.0   10061   1890.0   10070   1892.0   10083   1894.0   10095   1896.0   10275
GR1896.0   10555   1898.0   10975   1900.0   11120   1902.0   11380
K110.650       34   9956.9  10043.1        1        1        1
GR1899.6     7520   1898.0     7635   1896.0     7670   1894.3     7720   1895.2     7900
GR1896.0     7975   1898.0     8040   1898.6     8070   1898.0     8130   1896.0     8200
GR1894.4     8540   1896.0     9075   1898.0     9215   1898.0     9485   1896.0     9620
GR1894.0     9690   1892.0     9930   1886.5     9945   1889.3   9956.9   1876.8     9957
GR1876.3   10000   1876.8   10043   1889.3  10043.1   1886.5   10048   1887.0   10058
GR1888.0   10061   1890.0   10070   1892.0   10083   1894.0   10095   1896.0   10275
GR1896.0   10555   1898.0   10975   1900.0   11120   1902.0   11380
NH      5  0.037     9941   0.018    10066   0.037    10135   0.10     10735   0.037
NH 11355
X110.657       37   9956.9  10043.1       41       41       41
GR1899.8     7525   1898.0     7605   1896.0     7675   1894.2     7725   1896.0     7965
GR1898.0     8030   1898.8     8080   1898.0     8135   1896.0     8210   1894.9     8530
GR1896.0     9005   1898.0     9210   1900.0     9410   1898.0     9500   1896.0     9655
GR1894.0     9700   1892.0     9865   1892.0     9885   1890.0     9941   1889.0     9944
GR1890.0     9947   1894.5   9956.9   1876.9     9957   1876.5   10000   1876.9   10043
GR1894.5  10043.1   1894.3   10048   1889.5   10060   1888.5   10063   1889.5   10066
GR1891.0   10058   1892.0   10135   1894.0   10140   1896.0   10735   1898.0   10950
GR1900.0   11115   1902.0   11355
X110.658       37   9956.9  10043.1        1        1        1
GR1899.8     7525   1898.0     7605   1896.0     7675   1894.2     7725   1896.0     7965
GR1898.0     8030   1898.8     8080   1898.0     8135   1896.0     8210   1894.9     8530
GR1896.0     9005   1898.0     9210   1900.0     9410   1898.0     9500   1896.0     9655
GR1894.0     9700   1892.0     9865   1892.0     9885   1890.0     9941   1889.0     9944
GR1890.0     9947   1894.5   9956.9   1884.5     9957   1884.5   10000   1884.5   10043
GR1894.5  10043.1   1894.3   10048   1889.5   10060   1888.5   10063   1889.5   10066
GR1891.0   10058   1892.0   10135   1894.0   10140   1896.0   10735   1898.0   10950
GR1900.0   11115   1902.0   11355
NH      3  0.037     9940   0.018    11073   0.037    11345
X110.665       34     9940    10060       40       40       40
GR1899.2     7480   1898.0     7530   1896.0     7685   1896.0     7935   1898.0     8015
GR1898.9     8065   1898.0     9125   1896.0     8220   1895.5     8510   1896.0     8960
GR1898.0     9205   1900.0     9365   1900.0     9455   1898.0     9545   1896.0     9680
GR1894.0     9750   1892.0     9871   1889.8     9894   1894.3     9940   1894.8     9945
GR1884.8     9965   1884.5    10000   1884.8    10035   1894.8    10055   1894.3    10060
GR1891.3    10067   1890.3    10070   1891.3    10073   1892.0    10130   1894.0    10140
GR1896.0    10640   1898.0    10975   1900.0    11105   1902.0    11345
QT      1  82000
NC 0.037   0.037    0.025
X110.686       23     9940    10060      115       90      113                        15
X2
X3     10
GR1904.0     6430   1902.0     6820   1900.0     7810   1899.9     7970   1899.7     8085
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GR1899.7     8220   1899.5     8530   1898.6     8800   1898.1     9140   1898.0     9700
GR1898.0     9915   1896.0     9935   1894.3     9940   1895.1     9960   1884.7    10000
GR1885.1    10040   1894.3    10060   1896.0    10070   1898.0    10100   1898.0    10450
GR1900.0    10800   1902.0    11360   1904.0    11500
SB  1.25     1.56      2.8                 70.        5   1194.8     1.74   1885.5   1885.1
NC 0.037    0.037    0.035
X110.697        22     9945    10060      55.        55.        55.
X2                        1.     1899.   1898.6                                          15
X3     10                                                  1899.0   1899.0
BT     17     6430   1904.0                 6820   1902.0              7810   1900.0
BT   7970   1899.9                 8085   1899.7                 8220   1899.7                 8530
BT1898.5                 8800   1898.6                 9140   1898.1                 9695   1899.
BT              9795   1899.                 9895   1899.                 9995   1899.
BT 10075   1899.                10320   1900.0                10870   1902.0                11270
BT1904.0
GR1904.0     6430   1902.0     6820   1900.0     7810   1899.9     7570   1899.7     8085
GR1899.7     8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9625
GR1896.0     9935   1890.0     9945   1886.0     9970   1895.5     9975   1885.5    10025
GR1886.0    10035   1890.0    10060   1896.0    10070   1898.0    10090   1900.0    10290
GR1902.0    10850   1904.0    11300
X1 10.70        23     9945    10060      15.        15.        15.
X2                                                                                      15
X3     10                                                  1898.6   1898.6
GR1906.0     6210   1904.0     6560   1903.9     6805   1902.0     7235   1903.1     7380
GR1903.0     7680   1902.8     8195   1902.      8465   1900.      9160   1898.      9560
GR 1898.     9900   1890.      9945   1886.      9965   1885.5     9975   1885.5    10025
GR 1886.    10035   1890.     10060   1890.     10075   1898.     10145   1900.0    10235
GR1902.0    10805   1904.0    11205   1906.0    11575
SB  1.25     1.56      2.8                 70.        5   1194.8     1.74   1885.5   1885.5
X1 10.71                                 60.        60.        60.
X2                        1.     1899.   1898.6                                          15
X3     10                                                  1899.0   1899.0
BT     19     6210   1906.0                 6560   1904.0              6805   1903.9
BT   7285   1902.0                 7380   1903.1                 7680   1903.0                 8185
BT1902.8                 8465   1902.0                 9045   1901.9                 9160   1900.0
BT              9535   1899.6                 9930   1899.5                10100   1899.5
BT 10200   1899.9                10235   1900.0                10400   1900.9                10805
BT1902.0                11205   1904.0                11575   1906.0
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     32
  10.34        SECNO=River Mileage above Advanced Wastewater Treatment Plant
  10.34        Centerline Station at 10000
  10.46        Centerline Station at 10000
  10.49        Centerline Station at 5188
  10.54        Centerline Station at 10000
  10.55        **** Civic Center Drive (new structure) ****
  10.55        Normal Bridge
  10.55        1' Debris Load
  10.55        Centerline Station at 10000
  10.62        Centerline Station at 10000
 10.627        Centerline Station at 10000
 10.634        Centerline Station at 10000
 10.642        Centerline Station at 10000
 10.649        Centerline Station at 10000
 10.650        Centerline Station at 10000
 10.657        Centerline Station at 10000
 10.658        **** Drop Structure ****
 10.658        Centerline Station at 10000
 10.665        Centerline Station at 10000
 10.686        Centerline Station at 10000
 10.686        500-Year LOB Breakout of 6,500 cfs d/s of I-15 (rejoins main
 10.686          channel at x10.34); breakout flow determined by a flow
 10.686          distribution at I-15 (5,000 cfs) & a split flow model of the
 10.686          LOB ridge d/s of I-15 (1,500 cfs)
 10.697        **** I-15 North ****
 10.697        2' Debris Load
 10.697        Centerline Station at 10000
  10.70        Centerline Station at 10000
  10.71        **** I-15 South ****
  10.71        2' Debris Load
  10.71        Centerline Station at 10000
  10.74        Centerline Station at 2355
T1             CCRFCD/COE OVERFLOW STUDY
T2             JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3             LAS VEGAS WASH - 100-YEAR
J1                   2                    -1
J2         1                -1
J3       150
QT         2    23000    82000
NC                                  0.1       0.3
NH         5     0.04     6660      0.10     8790    0.042     9965    0.035    10055    0.037
NH     10835
ET                 7.1       9.1                                7900                6505
X1     10.34        53      9965     10055      450      420      450                              15
X2
GR1888.0     6015  1886.0     6025  1884.0     6075  1882.0     6295  1880.0     6315
GR1878.9     6420  1880.0     6480  1883.0     6505  1880.0     6515  1876.0     6535
GR1876.0     6545  1882.0     6560  1884.0     6660  1886.0     6925  1884.0     7025
GR1884.0     7110  1886.0     7210  1886.0     7320  1884.0     7380  1884.0     7445
GR1882.0     7460  1881.3     7480  1882.0     7505  1884.0     7670  1882.0     7685
GR1882.0     7775  1884.0     7805  1884.2     7900  1884.0     8035  1882.7     8100
GR1884.0     8170  1884.3     8215  1884.0     8270  1882.0     8390  1881.6     8450
GR1882.0     8500  1882.0     8600  1882.3     8790  1881.6     8875  1882.0     8975
GR1882.0     9135  1881.6     9635  1882.0     9775  1882.0     9965  1872.0     9995
GR1672.0    10030  1880.0    10055  1882.0    10190  1882.0    10310  1884.0    10350
GR1884.8    10675  1886.0    10910  1888.0    10835
QT         2    23000    75500
NH         4     0.10     8095     0.042     9905    0.035    10020    0.037    10575
ET                 7.1                                          9515
X1     10.46        28      9905     10020      600      700      600                              15
X2
GR1890.0     7310  1886.0     7375  1886.0     7420  1888.0     7445  1888.0     7680
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GR1888.0     8095  1886.0     9515  1887.2     8750  1896.0     8925  1886.0     8975
GR1886.6     9215  1886.0     9360  1894.0     9450  1883.3     9635  1884.0     9815
GR1885.1     9870  1884.0     9980  1882.0     9900  1880.0     9905  1878.0     9970
GR1876.1    10000  1878.0    10010  1880.0    10020  1882.0    10075  1884.0    10155
GR1886.0    10275  1888.0    10425  1890.0    10575
NC  0.042    0.037   0.035
ET               7.1                                    8075
K1 10.49         27          9975    10015       250       140        170                                    15
K2
GR1892.0     7615  1886.0     7635  1886.0     7650  1888.0     7680  1890.0     7890
GR1890.6     8075  1890.0     8505  1888.0     8975  1888.0     9215  1886.0     9420
GR1884.0     9640  1884.0     9860  1884.1     9890  1884.0     9925  1880.0     9935
GR1880.0     9975  1878.0     9995  1877.0    10000  1878.0    10005  1880.0    10015
GR1884.0    10035  1884.0    10170  1886.0    10260  1886.0    10325  1888.0    10360
GR1890.0    10430  1892.0    10705
NC                             0.3       0.5
ET               7.1                                    8410
K1 10.54         33          9934    10077       270.      220.       260.
BT      9    9450  1890.7  1890.7     9480  1891.6  1890.0     9520  1890.0  1888.0
BT   9700  1888.5  1886.0     9934  1887.7  1886.0  9938.9  1887.7  1885.7 10061.1
BT1888.8  1885.7    10077  1888.0    10225  1890.0  1890.0
GR1894.0     7630  1892.0     7735  1890.0     7800  1888.0  7825.0  1888.0     7875
GR1890.0     7950  1892.0     7950  1892.0     8410  1890.0     8940  1890.0     9380
GR1890.7     9450   1890.     9480   1888.     9520   1886.     9700  1886.0     9934
GR1885.7  9938.9  1881.9     9939  1877.8     9956  1877.8  9974.5  1885.7  9974.6
GR1885.7  9977.5  1877.8     9977.6  1877.8  10022.5  1885.7  10022.6  1885.7  10025.3
GR1877.8 10025.4  1877.8  10043.8  1881.9    10061  1885.7  10061.1  1888.0    10077
GR  1890.    10225  1892.    10680  1894.0    11050
ET               7.1                                    8260
X1 10.55         38          9928    10075        82.       82.        82.
BT      8    9505  1890.0  1890.0     9565  1888.8  1888.0     9825  1888.0  1886.1
BT   9928  1887.2  1886.0     9938.9  1887.7  1885.9  10061.1  1888.8  1885.9    10075
BT1889.0  1888.0    10210  1890.0  1890.0
GR1896.0     7515  1894.0     7645  1892.0     7735  1890.0     7780  1888.0     7805
GR1888.0     7835  1890.0     7890  1892.0     7980  1893.1     8260  1892.0     8595
GR1890.0     8910  1890.0     9210  1892.0     9290  1890.0     9345  1890.7     9475
GR 1890.     9515   1888.     9565  1886.1     9825.  1886.0     9928  1885.9  9938.9
GR1882.1     9939  1878.0     9956  1878.0  9974.5  1885.9  9974.6  1885.9  9977.5
GR1878.0  9977.6  1878.0  10022.5  1885.9  10022.6  1885.9  10025.3  1878.0  10025.4
GR1878.0 10043.8  1882.1    10061  1885.9  10061.1  1888.0    10075   1890.    10210
GR 1892.    10665  1894.0    11030  1896.0    11380
NH       7   0.037    9949   0.035    9966   0.025    10020   0.035    10095   0.037
NH10100      0.10    11100   0.035    11275
ET               7.1                                    8035
X1 10.62         35          9966    10020       320       245        335                                    15
X2
GR1898.0     7620  1896.0     7630  1894.0     7665  1892.5     7710  1894.0     7795
GR1894.0     7835  1896.0     7975  1897.3     8035  1896.0     8109  1894.0     8429
GR1893.0     8549  1894.0     9104  1896.0     9139  1896.0     9204  1894.5     9224
GR1893.7     9275  1894.4     9308  1893.7     9359  1894.2     9391  1893.2     9554
GR1892.5     9849  1892.0     9891  1892.0     9936  1891.7     9966  1875.7  9997.5
GR1875.7 10002.5  1884.2    10020  1890.0    10082  1892.0    10095  1894.0    10100
GR1894.0    10255  1896.8    10590  1896.0    10805  1898.0    11110  1900.0    11275
NH       5   0.037    9965   0.025    10020   0.037    10068   0.10    11050   0.037
NH 11390
ET               7.1                                    8035
X110.627         35          9965    10020        62        62         62
GR1898.8     7500  1898.0     7605  1896.0     7635  1894.0     7670  1892.9     7705
GR1894.0     7775  1894.0     7880  1896.0     7975  1897.5     8035  1896.0     8130
GR1894.0     8450  1893.4     8540  1894.0     8970  1896.0     9145  1898.0     9175
GR1896.0     9265  1896.0     9605  1894.0     9695  1892.0     9740  1892.4     9965
GR1875.9  9937.5  1875.9  10002.5  1884.4    10020  1885.0    10050  1886.0    10060
GR1887.0    10058  1890.0    10085  1892.0    10095  1894.0    10105  1894.0    10255
GR1896.0    10540  1896.0    10810  1898.0    11050  1900.0    11250  1902.0    11390
NH       5   0.037    9935   0.025    10060   0.037    10100   0.10    11045   0.037
NH11375
ET               7.1                                    8045
X110.634         33          9935    10060        38        38         38
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GR1898.9	7525	1898.0	7630	1896.0	7660	1894.0	7685	1893.1	7715
GR1894.0	7735	1894.0	7895	1896.0	7990	1897.7	8045	1896.0	8150
GR1894.0	8470	1893.6	8540	1894.0	8940	1896.0	9150	1898.0	9195
GR1896.0	9505	1894.0	9685	1892.0	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10805
GR1898.0	11045	1900.0	11155	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					8050			
X110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7890	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8825	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9680	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					8070			
X110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
ET	7.1					8070			
X110.650	34	9956.9	10043.1	1	1	1			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1889.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1889.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
NH 5	0.037	9941	0.018	10066	0.037	10135	0.10	10735	0.037
NH 11355									
ET	7.1					8080			
X110.657	37	9956.9	10043.1	41	41	41			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1876.9	9957	1876.5	10000	1876.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10058	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
ET	7.1					8080			
X110.658	37	9956.9	10043.1	1	1	1			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1884.9	9957	1884.5	10000	1884.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10058	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
NH 3	0.037	9940	0.018	10073	0.037	11345			
ET	7.1					8065			
X110.665	34	9940	10060	40	40	40			
GR1899.2	7480	1898.0	7530	1896.0	7685	1896.0	7935	1898.0	8015
GR1898.9	8065	1898.0	8125	1896.0	8220	1895.5	8510	1896.0	8960
GR1898.0	9205	1900.0	9365	1900.0	9455	1898.0	9545	1896.0	9680
GR1894.0	9750	1892.0	9871	1889.8	9894	1894.3	9940	1894.8	9945
GR1884.8	9965	1884.5	10000	1884.8	10035	1894.8	10055	1894.3	10060

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GR1891.3   19057   1890.3   19070   1891.3   19073   1892.0   19130   1894.0   19140
GR1896.9   19640   1898.0   19675   1900.0   11105   1902.0   11345
QT     2   23000   82000
NC 0.037   0.037   0.025
X110.686      23    9940    10060      115       90      113
X2                                                              15
X3    10
GR1904.0    6430   1902.0    6820   1900.0    7810   1899.9    7970   1899.7    8085
GR1899.7    8220   1898.5    8530   1898.6    8800   1898.1    9140   1898.0    9700
GR1898.0    9915   1896.0    9935   1894.3    9940   1885.1    9960   1884.7   10000
GR1885.1   10040   1894.3   10060   1896.0   10070   1898.9   10100   1898.0   10450
GR1900.0   10800   1902.0   11360   1904.0   11500
SB  1.25    1.56      2.8              70.       5   1194.8     1.74   1885.5   1885.1
NC 0.037   0.037   0.035
ET             7.1                                 8000
X110.697      22    9945    10060      55.       55.     55.
X2                    1.    1899.   1898.6                                    15
BT    17    6430   1904.0            6820   1902.0            7810   1900.0
BT  7970   1899.9            8085   1899.7            8220   1899.7            8530
BT1898.5            8800   1898.6            9140   1898.1            9695   1899.
BT             9735   1899.            9895   1899.            9995   1899.
BT 10075   1899.            10320   1900.0            10870   1902.0           11270
BT1904.0
GR1904.0    6430   1902.0    6820   1900.0    7810   1899.9    7970   1899.7    8085
GR1899.7    8220   1898.5    8530   1898.6    8800   1898.1    9140   1898.0    9625
GR1896.0    9935   1890.0    9945   1896.0    9970   1885.5    9975   1885.5   10025
GR1886.0   10035   1890.0   10060   1896.0   10070   1898.0   10090   1900.0   10290
GR1902.0   10850   1904.0   11300
ET             7.1                                 7380
X1 10.70      23    9945    10060      15.       15.     15.
X2                                                              15
GR1906.0    6210   1904.0    6560   1903.9    6805   1902.0    7285   1903.1    7380
GR1903.0    7680   1902.8    8185   1902.     8465   1900.     9160   1898.     9560
GR 1898.    9900   1890.     9945   1896.     9965   1885.5    9975   1885.5   10025
GR 1886.   10035   1890.    10060   1898.    10075   1898.    10145   1900.0   10235
GR1902.0   10905   1904.0   11205   1906.0   11575
SB  1.25    1.56      2.8              70.       5   1194.8     1.74   1885.5   1885.5
ET             7.1                                 7380
X1 10.71                                    60.       60.     60.
X2                    1.    1899.   1899.5                                    15
BT    19    6210   1906.0            6560   1904.0            6805   1903.9
BT  7285   1902.9            7380   1903.1            7680   1903.0            8185
BT1902.8            8465   1902.0            9045   1901.9            9160   1900.0
BT             9535   1899.6            9930   1899.5           10100   1899.5
BT 10200   1899.9           10235   1900.0           10400   1900.9           10805
BT1902.0           11205   1904.0           11575   1906.0
EJ
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 500-YEAR
J1                3                   -1
J2    15                -1


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EOF..
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      28
  10.34       SECNO=River Mileage above Advanced Wastewater Treatment Plant
  10.34       Centerline Station at 10000
  10.46       Centerline Station at 10000
  10.49       Centerline Station at 5188
  10.54       Centerline Station at 10000
  10.55       **** Civic Center Drive (new structure) ****
  10.55       Normal Bridge
  10.55       1* Debris Load
  10.55       Centerline Station at 10000
  10.62       Centerline Station at 10000
 10.627       Centerline Station at 10000
 10.634       Centerline Station at 10000
 10.642       Centerline Station at 10000
 10.649       Centerline Station at 10000
 10.650       Centerline Station at 10000
 10.657       Centerline Station at 10000
 10.658       **** Drop Structure ****
 10.658       Centerline Station at 10000
 10.665       Centerline Station at 10000
 10.686       Centerline Station at 10000
 10.697       **** I-15 North ****
 10.697       2* Debris Load
 10.697       Centerline Station at 10000
  10.70       Centerline Station at 10000
  10.71       **** I-15 South ****
  10.71       2* Debris Load
  10.71       Centerline Station at 10000
  10.74       Centerline Station at 2355
T1            CORECD/COE OVERFLOW STUDY
T2            JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3            LAS VEGAS WASH - 50-YEAR
J1                  2                -1
J2     -1                -1
J3    150
QT       1   12500
VC                              0.1       0.3
NH       5     0.04      6660    0.10      8790    0.042     9965    0.035    10055    0.037
NH   10835
ET                7.1                                               8215
X1   10.34         53      9965   10055       450      420       450
X2                                                                              15
GR1888.0      6015  1886.0   6025  1884.0   6075  1882.0   6295  1880.0   6315
GR1878.9      6420  1880.0   6480  1883.9   6505  1880.0   6515  1876.0   6535
GR1876.0      6545  1882.0   6560  1884.0   6660  1886.0   6925  1884.0   7025
GR1884.0      7110  1886.0   7210  1886.0   7320  1884.0   7380  1884.0   7445
GR1882.0      7450  1881.3   7480  1882.0   7505  1884.0   7670  1882.0   7685
GR1882.0      7775  1884.0   7805  1884.2   7900  1884.0   8035  1882.7   8100
GR1884.0      8170  1884.3   8215  1884.0   8270  1882.0   8390  1881.6   8450
GR1882.0      8500  1882.0   8600  1882.0   8790  1881.6   8875  1882.0   8975
GR1882.0      9185  1881.6   9635  1882.0   9775  1882.0   9965  1872.0   9985
GR1872.0     10030  1880.0  10065  1882.3  10190  1882.0  10310  1884.0  10350
GR1884.8     10675  1886.0  10910  1888.0  10835
NH       4     0.10      8095    0.042     9905    0.035    10020    0.037    10575
ET                7.1                                               9215
X1   10.46         28      9905   10020       600      700       600
X2                                                                              15
GR1890.0      7310  1886.0   7375  1886.0   7420  1888.0   7445  1888.0   7680
GR1888.0      8095  1888.0   9515  1887.2   8750  1886.0   8925  1886.0   8975
GR1886.6      9215  1886.0   9350  1884.0   9450  1883.3   9695  1884.0   9815
GR1885.1      9870  1884.0   9880  1882.0   9900  1880.0   9905  1878.0   9970
GR1876.1     10000  1878.0  10010  1880.0  10020  1882.0  10075  1884.0  10155
GR1886.0     10275  1888.0  10425  1890.0  10575
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NC 0.042    0.037    0.035
ET              7.1                                  8075
X1 10.49         27      9975     10015      250      140       170
X2                                                                15
GR1892.0      7615   1886.0      7635   1886.0      7650   1888.0      7680   1890.0      7850
GR1890.6      8075   1890.0      8505   1888.0      8975   1888.0      9215   1886.0      9420
GR1884.0      9640   1884.0      9860   1884.1      9890   1884.0      9925   1880.0      9935
GR1880.0      9975   1878.0      9995   1877.0     10000   1878.0     10005   1880.0     10015
GR1884.0     10035   1884.0     10170   1886.0     10260   1886.0     10325   1888.0     10360
GR1890.0     10430   1892.0     10705
NC                                0.3      0.5
ET              7.1                                  9450
X1 10.54         33      9934     10077      270.     220.      260.
X2                                                                15
BT      9     9450   1890.7   1890.7      9480   1891.6   1890.0      9520   1890.0   1888.0
BT   9700   1888.5   1886.0      9934   1887.7   1886.0   9938.9   1887.7   1885.7  10061.1
BT1888.8   1885.7  10077   1889.0   1888.0  10225   1890.0   1890.0
GR1894.0      7630   1892.0      7735   1890.0      7800   1889.0   7825.0   1889.0      7875
GR1890.0      7950   1892.0      7990   1892.0      8410   1890.0      8940   1890.0      9380
GR1890.7      9450   1890.       9480   1888.       9520    1886.      9700   1886.0      9934
GR1885.7   9938.9   1881.9      9939   1877.8      9956   1877.8   9974.5   1885.7   9974.6
GR1885.7      9977.5   1877.8   9977.6   1877.8  10022.5   1885.7  10022.6   1885.7  10025.3
GR1877.8  10025.4   1877.8  10043.8   1881.9     10061   1885.7  10061.1   1888.0     10077
GR 1890.     10225   1892.     10680   1894.0     11050
ET              7.1                                  9290
X1 10.55         38      9928     10075       82.      82.       82.
X2                                                                15
BT      8     9505   1890.0   1890.0      9565   1888.8   1888.0      9825   1888.0   1886.1
BT   9928   1887.2   1886.0   9938.9   1887.7   1885.9  10061.1   1888.8   1885.9    10075
BT1889.0   1888.0    10210   1890.0   1890.0
GR1896.0      7505   1894.0      7645   1892.0      7735   1890.0      7780   1888.0      7805
GR1888.0      7835   1890.0      7890   1892.0      7980   1893.1      8260   1892.0      8595
GR1890.0      8910   1890.0      9210   1892.0      9290   1890.0      9345   1890.7      9475
GR 1890.      9505    1888.      9565   1886.1      9825.   1886.0      9928   1885.9   9938.9
GR1882.1      9939   1878.0      9956   1878.0   9974.5   1885.9   9974.6   1885.9   9977.5
GR1878.0   9977.6   1878.0  10022.5   1885.9  10022.6   1885.9  10025.3   1878.0  10025.4
GR1878.0  10043.8   1882.1     10061   1885.9  10061.1   1888.0     10075    1890.     10210
GR 1892.     10665   1894.0     11030   1896.0     11380
NH       7    0.037     9849    0.035      9965    0.025     10020    0.035     10095    0.037
NH10100       0.10    11100     0.035     11275
ET              7.1                                  9204
X1 10.62         35      9966     10020      320      245       335
X2                                                                15
GR1898.0      7620   1896.0      7630   1894.0      7665   1892.5      7710   1894.0      7795
GR1894.0      7885   1896.0      7975   1897.3      8035   1896.0      8109   1894.0      8429
GR1893.0      8549   1894.0      9104   1896.0      9139   1896.0      9204   1894.5      9224
GR1893.7      9275   1894.4      9308   1893.7      9359   1894.2      9391   1893.2      9554
GR1892.5      9849   1892.0      9991   1892.0      9936   1891.7      9966   1875.7   9997.5
GR1875.7  10002.5   1884.2     10020   1890.0     10082   1892.0     10095   1894.0     10100
GR1894.0     10255   1896.8     10590   1896.0     10805   1898.0     11100   1900.0     11275
NH       5    0.037      9965    0.025     10020    0.037     10068      0.10     11050    0.037
NH 11390
ET              7.1                                  9605
X110.627         35      9965     10020         62       62        62
GR1898.8      7500   1898.0      7605   1896.0      7635   1894.0      7670   1892.9      7705
GR1894.0      7775   1894.0      7880   1896.0      7975   1897.5      8035   1896.0      8130
GR1894.0      8450   1893.4      8540   1894.0      8970   1896.0      9145   1898.0      9175
GR1896.0      9265   1896.0      9605   1894.0      9695   1892.0      9740   1892.4      9965
GR1875.9   9997.5   1875.9  10002.5   1894.4     10020   1885.0     10050   1886.0     10060
GR1887.0     10068   1890.0     10085   1892.0     10095   1894.0     10135   1894.0     10255
GR1896.0     10540   1896.0     10810   1898.0     11050   1900.0     11250   1902.0     11390
NH       5    0.037      9935    0.025     10060    0.037     10100      0.10     11045    0.037
NH11375
ET              7.1                                  9195
X110.634         33      9935     10060         38       38        33
GR1898.9      7525   1898.0      7630   1896.0      7660   1894.0      7685   1893.1      7715
GR1894.0      7785   1894.0      7855   1896.0      7990   1897.7      8045   1896.0      8150
GR1894.0      8470   1893.6      8540   1894.0      8940   1896.0      9150   1898.0      9195
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GR1896.0	9605	1894.0	9685	1892.0	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10805
GR1898.0	11045	1900.0	11155	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					9435			
X110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7850	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8625	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9660	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					9485			
X110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
ET	7.1					9485			
X110.650	34	9956.9	10043.1	1	1	1			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1889.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1889.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
NH 5	0.037	9941	0.018	10065	0.037	10135	0.10	10735	0.037
NH 11355									
ET	7.1					9410			
X110.657	37	9956.9	10043.1	41	41	41			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1876.9	9957	1876.5	10010	1876.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1889.5	10063	1889.5	10066
GR1891.0	10068	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
ET	7.1					9410			
X110.658	37	9956.9	10043.1	1	1	1			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1884.9	9957	1884.5	10000	1884.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10058	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
NH 3	0.037	9940	0.018	10073	0.037	11345			
ET	7.1					9455			
X110.665	34	9940	10060	40	40	40			
GR1899.2	7480	1898.0	7530	1896.0	7685	1896.0	7935	1898.0	8015
GR1898.9	8065	1898.0	8125	1896.0	8220	1895.5	8510	1896.0	8960
GR1898.0	9205	1900.0	9365	1900.0	9455	1898.0	9545	1896.0	9680
GR1894.0	9750	1892.0	9871	1889.8	9894	1894.3	9940	1894.8	9545
GR1884.8	9965	1884.5	10000	1884.8	10035	1894.8	10055	1894.3	10060
GR1891.3	10067	1890.3	10070	1891.3	10073	1892.0	10130	1894.0	10140
GR1896.0	10640	1898.0	10975	1900.0	11105	1902.0	11345		
NC 0.037	0.037	0.025							

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X110.686      23      9940    10060       115       90       113
X2                                                                                                  15
X3    10                                                          1898.6    1898.6
GR1904.0    6430    1902.0     6820    1900.0     7810    1899.9     7970    1899.7     8085
GR1899.7    8220    1898.5     8530    1898.6     8800    1898.1     9140    1899.0     9700
GR1898.0    9915    1896.0     9935    1894.3     9940    1885.1     9960    1884.7    10000
GR1885.1   10040    1894.3    10060    1896.0    10070    1898.0    10150    1898.0    10450
GR1900.0   10800    1902.0    11360    1904.0    11500
SB  1.25    1.56       2.8                 70.        5    1194.8      1.74    1885.5    1885.1
VC 0.037   0.037     0.035
X110.697      22      9945    10060        55.       55.       55.
X2                      1.     1899.    1898.6                                                      15
X3    10                                                          1899.0    1899.0
BT    17    6430    1904.0                6820    1902.0                7810    1900.0
BT  7970  1899.9                8085    1899.7                8220    1899.7                8530
BT1898.5                8800    1898.6                9140    1898.1                9695    1899.
BT          9795    1899.                9895    1899.                9995    1899.
BT 10075    1899.               10320    1900.0              10870    1902.0              11270
BT1904.0
GR1904.0    6430    1902.0     6820    1900.0     7810    1899.9     7970    1895.7     8085
GR1899.7    8220    1898.5     8530    1898.6     8300    1898.1     9140    1898.0     9625
GR1896.0    9935    1890.0     9945    1886.0     9970    1885.5     9975    1885.5    10025
GR1886.0   10035    1890.0    10060    1896.0    10070    1898.0    10090    1900.0    10290
GR1902.0   10850    1904.0    11300
X1 10.70      23      9945    10060        15.       15.       15.
X2                                                                                                  15
X3    10                                                          1898.6    1898.6
GR1906.0    6210    1904.0     6560    1903.3     6805    1902.0     7285    1903.1     7380
GR1903.0    7680    1902.8     8185    1902.      8465    1900.      9150    1898.      9560
GR 1898.    9900    1890.      9945    1886.      9965    1885.5     9975    1885.5    10025
GR 1886.   10035    1890.     10060    1898.     10075    1898.     10145    1900.0    10235
GR1902.0   10805    1904.0    11205    1906.0    11575
SB  1.25    1.56       2.8                 70.        5    1194.8      1.74    1885.5    1885.5
X1 10.71                                    60.       60.       60.
X2                      1.     1895.    1899.5                                                      15
X3    10                                                          1899.0    1899.0
BT    19    6210    1906.0                6560    1904.0                6805    1903.9
BT  7285  1902.8                7380    1903.1                7680    1903.0                8185
BT1902.8                8465    1902.0                9045    1901.9                9160    1900.0
BT          9535    1899.6               9930    1899.5               10100    1899.5
BT 10200    1899.9              10235    1900.0              10400    1900.9              10805
BT1902.0               11205    1904.0               11575    1906.0
EJ


ER
EOF..
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C
C       28
C    10.34       SECNO=River Mileage above Advanced Wastewater Treatment Plant
C    10.34       Centerline Station at 10000
C    10.46       Centerline Station at 10000
C    10.49       Centerline Station at 5188
C    10.54       Centerline Station at 10000
C    10.55       **** Civic Center Drive (new structure) ****
C    10.55       Normal Bridge
C    10.55       1% Debris Load
C    10.55       Centerline Station at 10000
C    10.62       Centerline Station at 10000
C   10.627       Centerline Station at 10000
C   10.634       Centerline Station at 10000
C   10.642       Centerline Station at 10000
C   10.649       Centerline Station at 10000
C   10.650       Centerline Station at 10000
C   10.657       Centerline Station at 10000
C   10.658       **** Drop Structure ****
C   10.658       Centerline Station at 10000
C   10.665       Centerline Station at 10000
C   10.686       Centerline Station at 10000
C   10.697       **** I-15 North ****
C   10.697       2% Debris Load
C   10.697       Centerline Station at 10000
C    10.70       Centerline Station at 10000
C    10.71       **** I-15 South ****
C    10.71       2% Debris Load
C    10.71       Centerline Station at 10000
C    10.74       Centerline Station at 2355
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 50-YEAR
J1              2                   -1
J2    -1                -1
J3   150
QT     1   12500
NC                              0.1         0.3
NH     5     0.04      6660      0.10      8790     0.042      9965     0.035     10055     0.037
NH 10835
ET             7.1                                                   8215
X1 10.34        53      9965     10055       450       420       450
K2                                                                                          15
GR1888.0      6015    1886.0      6025    1884.0      6075    1882.0      6295    1880.0      6315
GR1878.9      6420    1880.0      6420    1883.0      6505    1880.0      6515    1876.0      6535
GR1876.0      6545    1882.0      6560    1884.0      6660    1886.0      6925    1884.0      7025
GR1884.0      7110    1886.0      7210    1886.0      7320    1884.0      7380    1884.0      7445
GR1882.0      7450    1881.3      7480    1882.0      7505    1884.0      7670    1882.0      7685
GR1882.0      7775    1884.0      7805    1884.2      7900    1884.0      8035    1882.7      8100
GR1884.0      8170    1884.3      8215    1884.0      8270    1882.0      8390    1881.6      8450
GR1882.0      8500    1882.0      8600    1882.0      8790    1881.6      8875    1882.0      8975
GR1882.0      9185    1881.6      9635    1882.0      9775    1882.0      9965    1872.0      9995
GR1872.0     10030    1880.0     10055    1882.0     10190    1882.0     10310    1884.0     10350
GR1884.8     10675    1886.0     10810    1888.0     10835
NH     4     0.10      8095      0.042      9905     0.035     10020     0.037     10575
ET             7.1                                                   9215
X1 10.46        28      9905     10020       600       700       600
X2                                                                                          15
GR1890.0      7310    1886.0      7375    1886.0      7420    1888.0      7445    1868.0      7680
GR1888.0      8095    1888.0      8515    1887.2      8750    1886.0      8925    1886.0      8975
GR1886.6      9215    1886.0      9390    1884.0      9450    1883.3      9695    1884.0      9815
GR1885.1      9870    1884.0      9880    1882.0      9900    1880.0      9905    1878.0      9970
GR1876.1     10000    1878.0     10010    1880.0     10020    1882.0     10075    1884.0     10155
GR1886.0     10275    1888.0     10425    1890.0     10575
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NC 0.042    0.037    0.035
ET              7.1                                    8075
X1 10.49         27      9975     10015      250       140       170
X2                                                                                                  15
GR1892.0      7615   1886.0      7635   1896.0      7650   1888.0      7680   1890.0      7690
GR1890.6      8075   1890.0      8505   1888.0      8975   1888.0      9215   1886.0      9420
GR1884.0      9640   1884.0      9860   1884.1      9890   1884.0      9925   1880.0      9935
GR1880.0      9975   1878.9      9995   1877.0     10000   1878.0     10005   1880.0     10015
GR1884.0     10035   1884.0     10170   1896.0     10260   1886.0     10325   1888.0     10360
GR1890.0     10430   1892.0     10705
NC                                0.3        0.5
ET              7.1                                    9450
X1 10.54         33      9934     10077      270.      220.      260.
X2                                                                                                  15
BT      9     9450   1890.7   1890.7      9480   1891.6   1890.0      9520   1890.0   1888.0
BT   9700   1888.5   1886.0      9934   1887.7   1886.0   9938.9   1887.7   1885.7  10061.1
BT1888.8   1885.7     10077   1885.0   1888.0     10225   1890.0   1890.0
GR1894.3      7630   1892.0      7735   1890.0      7800   1888.0   7825.0   1888.0      7875
GR1890.0      7950   1892.0      7990   1892.0      8410   1890.0      8940   1890.0      9380
GR1890.7      9450   1890.       9480   1888.       9520   1886.       9700   1886.0      9934
GR1885.7   9938.9   1881.9      9939   1877.8      9956   1877.8   9974.5   1885.7   9974.6
GR1885.7   9977.5   1877.8   9977.6   1877.8   10022.5   1885.7  10022.6   1885.7  10025.3
GR1877.8  10025.4   1877.8  10043.8   1881.9     10061   1885.7  10061.1   1888.0     10077
GR 1890.    10225   1892.     10680   1894.0     11050
ET              7.1                                    9290
X1 10.55         38      9928     10075       82.       82.       82.
X2                                                                                                  15
BT      8     9505   1890.0   1890.0      9565   1888.8   1888.0      9825   1888.0   1886.1
BT   9928   1887.2   1886.0   9938.9   1887.7   1885.9  10061.1   1888.8   1885.9     10075
BT1889.0   1888.0     10210   1890.0   1890.0
GR1896.0      7505   1894.0      7645   1892.0      7735   1890.0      7780   1888.0      7805
GR1888.0      7835   1890.0      7890   1892.0      7980   1893.1      8260   1892.0      8595
GR1890.0      8910   1890.0      9210   1892.0      9290   1890.0      9345   1890.7      9475
GR 1890.      9535   1888.       9565   1886.1      9825.  1886.0      9928   1885.9   9938.9
GR1882.1      9939   1878.0      9956   1878.0      9974.5 1885.9      9974.6 1885.9   9977.5
GR1878.0   9977.6   1878.0  10022.5   1885.9  10022.6   1885.9  10025.3   1878.0  10025.4
GR1878.0  10043.8   1882.1     10061   1885.9  10061.1   1888.0     10075   1890.      10210
GR 1892.    10665   1894.0     11030   1896.0     11380
NH      7   0.037     9849    0.035      9966    0.025     10020    0.035     10095    0.037
NH10100      0.10    11100    0.035     11275                    9204
ET              7.1
X1 10.62         35      9966     10020      320       245       335
X2                                                                                                  15
GR1898.0      7620   1896.0      7630   1894.0      7665   1892.5      7710   1894.0      7795
GR1894.0      7885   1896.0      7975   1897.3      8035   1896.0      8109   1894.0      8429
GR1893.0      8549   1894.0      9104   1896.0      9139   1896.0      9204   1894.5      9224
GR1893.7      9275   1894.4      9308   1893.7      9359   1894.2      9391   1893.2      9554
GR1892.5      9849   1892.0      9891   1892.3      9936   1891.7      9966   1875.7   9997.5
GR1875.7  10002.5   1884.2     10020   1890.0     10082   1892.0     10095   1894.0     10100
GR1894.0     10255   1896.8     10590   1896.0     10805   1898.0     11100   1900.0     11275
NH      5   0.037     9965    0.025     10020    0.037     10068      0.10     11050    0.037
NH 11390
ET              7.1                                    9605
K110.627         35      9965     10020         62        62        62
GR1898.8      7500   1898.0      7605   1896.0      7635   1894.0      7670   1892.9      7705
GR1894.0      7775   1894.0      7980   1896.0      7975   1897.5      8035   1896.0      8130
GR1894.0      8450   1893.4      9540   1894.0      8970   1896.0      9145   1898.0      9175
GR1896.0      9265   1896.0      9605   1894.0      9695   1892.0      9740   1892.4      9965
GR1875.9   9997.5   1875.9  10002.5   1884.4     10020   1885.0     10050   1886.0     10060
GR1887.0     10058   1890.0     10085   1892.0     10095   1894.0     10105   1894.0     10255
GR1896.0     10540   1896.0     10810   1898.0     11050   1900.0     11250   1902.0     11390
NH      5   0.037     9935    0.025     10060    0.037     10100      0.10     11045    0.037
NH11375
ET              7.1                                    9195
K110.634         33      9935     10060         38        38        38
GR1898.9      7525   1898.0      7630   1896.0      7660   1894.0      7685   1893.1      7715
GR1894.0      7785   1894.0      7895   1896.0      7990   1897.7      8045   1896.0      8150
GR1894.0      8470   1893.6      8540   1894.0      8940   1896.0      9160   1898.0      9195
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GR1896.0	9655	1894.0	9685	1892.0	9770	1891.4	9955	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10905
GR1898.0	11045	1900.0	11195	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					9435			
X110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7750	1894.5	7890	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8825	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9680	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					9485			
X110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
ET	7.1					9485			
X110.650	34	9956.9	10043.1	1	1	1			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1889.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1889.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
NH 5	0.037	9941	0.018	10066	0.037	10135	0.10	10735	0.037
NH 11355									
ET	7.1					9410			
X110.657	37	9956.9	10043.1	41	41	41			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1899.0	9944
GR1890.0	9947	1894.5	9956.9	1876.9	9957	1876.5	10000	1876.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10058	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
ET	7.1					9410			
X110.658	37	9956.9	10043.1	1	1	1			
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1898.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1884.9	9957	1884.5	10000	1884.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10058	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
NH 3	0.037	9940	0.018	10073	0.037	11345			
ET	7.1					9455			
X110.665	34	9940	10060	40	40	40			
GR1899.2	7480	1898.0	7530	1896.0	7685	1896.0	7935	1898.0	8015
GR1898.9	8055	1898.0	8125	1896.0	8220	1895.5	8510	1896.0	8960
GR1898.0	9205	1900.0	9365	1900.0	9455	1898.0	9545	1896.0	9680
GR1894.0	9750	1892.0	9871	1889.8	9894	1894.3	9940	1894.8	9545
GR1884.8	9965	1884.5	10000	1884.8	10035	1894.8	10055	1894.3	10060
GR1891.3	10067	1890.3	10070	1891.3	10073	1892.0	10130	1894.0	10140
GR1896.0	10640	1898.0	10975	1900.0	11105	1902.0	11345		
NC 0.037	0.037	0.025							

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X110.686      23      9940    10060      115       90      113
X2                                                                    15
K3    10                                          1898.6    1898.6
GR1904.0    6430    1902.0    6820    1900.0    7810    1899.9    7970    1899.7    8085
GR1899.7    8220    1898.5    8530    1898.6    8800    1898.1    9140    1898.0    9700
GR1898.0    9915    1896.0    9935    1894.3    9940    1885.1    9950    1884.7   10000
GR1885.1   10040    1894.3   10060    1896.0   10070    1898.0   10100    1898.0   10450
GR1900.0   10800    1902.0   11360    1904.0   11500
SR  1.25    1.56       2.8                70.       5    1194.8    1.74    1885.5    1885.1
NC 0.037   0.037     0.035
X110.697      22      9945    10060       55.       55.       55.
X2                      1.    1899.    1898.6                         15
K3    10                                          1899.0    1899.0
BT    17    6430    1904.0                6820    1902.0              7810    1900.0
BT  7970    1899.9                8085    1899.7              8220    1899.7              8530
BT1898.5                8800    1898.6                9140    1898.1              9655    1899.
BT                  9735    1899.                9895    1899.              9995    1899.
BT 10075    1899.              10320    1900.0              10870    1902.0              11270
BT1904.0
GR1904.0    6430    1902.0    6820    1900.0    7810    1899.9    7970    1899.7    8085
GR1899.7    8220    1898.5    8530    1898.6    8800    1898.1    9140    1898.0    9625
GR1896.0    9935    1890.0    9945    1886.0    9970    1885.5    9975    1885.5   10025
GR1886.0   10035    1890.0   10060    1896.0   10070    1898.0   10090    1900.0   10290
GR1902.0   10850    1904.0   11300
X1 10.70      23      9945    10060       15.       15.       15.
X2                                                                    15
K3    10                                          1898.6    1898.6
GR1906.0    6210    1904.0    6560    1903.9    6805    1902.0    7285    1903.1    7380
GR1903.0    7680    1902.8    8185    1902.     8465    1900.     9160    1898.     9560
GR 1898.    9900    1890.     9945    1886.     9965    1885.5    9975    1885.5   10025
GR 1886.   10035    1890.    10060    1890.    10075    1898.    10145    1900.0   10235
GR1902.0   10805    1904.0   11205    1906.0   11575
SR  1.25    1.56       2.8                70.       5    1194.8    1.74    1885.5    1885.5
X1 10.71                               60.       60.       60.
X2                      1.    1899.    1899.5                         15
K3    10                                          1899.0    1899.0
BT    19    6210    1906.0                6560    1904.0              6805    1903.9
BT  7285    1902.0                7380    1903.1              7680    1903.0              8185
BT1902.8                8465    1902.0                9045    1901.9              9160    1900.0
BT                  9535    1899.6                9930    1899.5             10100    1899.5
BT 10200    1899.9             10235    1900.0              10400    1900.9              10805
BT1902.0             11205    1904.0              11575    1906.0
EJ


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EOF..
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      30
   10.34        SECNO=River Mileage above Advanced Wastewater Treatment Plant
   10.34        Centerline Station at 10000
   10.34        Reduced 25-year flow by 900 cfs due to divided flow at x10.46 and
   10.34           x10.49 (rejoins main channel at x 10.15)
   10.46        Centerline Station at 10000
   10.49        Centerline Station at 5188
   10.54        Centerline Station at 10000
   10.55        **** Civic Center Drive (new structure) ****
   10.55        Normal Bridge
   10.55        1* Debris Load
   10.55        Centerline Station at 10000
   10.62        Centerline Station at 10000
  10.627        Centerline Station at 10000
  10.634        Centerline Station at 10000
  10.642        Centerline Station at 10000
  10.649        Centerline Station at 10000
  10.650        Centerline Station at 10000
  10.657        Centerline Station at 10000
  10.658        **** Drop Structure ****
  10.658        Centerline Station at 10000
  10.665        Centerline Station at 10000
  10.686        Centerline Station at 10000
  10.697        **** I-15 North ****
  10.697        2* Debris Load
  10.697        Centerline Station at 10000
   10.70        Centerline Station at 10000
   10.71        **** I-15 South ****
   10.71        2* Debris Load
   10.71        Centerline Station at 10000
   10.74        Centerline Station at 2355
T1          CCRFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - 25-YEAR
J1                    2                    -1
J2     -1                  -1
J3    150
QT      1    5300
NC                                  0.1       0.3
NH      5    0.04     6660      0.10      9790    0.042     9965    0.035    10055    0.037
NH  10835
ET             7.1                                          9965
X1  10.34       53     9965     10055       450      420      450                              15
GR1888.0     6015   1886.0      6025    1884.0     6075   1882.0     6295   1880.0      6315
GR1878.9     6420   1880.0      6480    1883.0     6505   1880.0     6515   1876.0      6535
GR1876.0     6545   1882.0      6560    1884.0     6660   1886.0     6925   1884.0      7025
GR1884.0     7110   1886.0      7210    1886.0     7320   1884.0     7380   1884.0      7445
GR1882.0     7460   1881.3      7480    1882.0     7505   1884.0     7670   1882.0      7685
GR1882.0     7775   1884.0      7805    1884.2     7900   1884.0     8035   1882.7      8100
GR1884.0     8170   1884.3      8215    1884.0     8270   1882.0     8390   1881.6      8450
GR1882.0     8500   1882.0      8600    1882.0     8790   1881.6     8875   1882.0      8975
GR1882.0     9185   1881.6      9635    1882.0     9775   1882.0     9565   1872.0      9995
GR1872.0    10030   1880.0     10055    1882.0    10190   1882.0    10310   1884.0     10350
GR1884.8    10675   1886.0     10910    1888.0    10835
NH      4    0.10     8095      0.042     9905    0.035    10020    0.037    10575
ET             7.1                                          9870
X1  10.46       28     9905     10020       600      700      600                              15
GR1890.0     7310   1886.0      7375    1886.0     7420   1888.0     7445   1889.0      7680
GR1888.0     8095   1889.0      8515    1887.2     8750   1886.0     8925   1886.0      8975
GR1886.6     9215   1886.0      9390    1884.0     9450   1883.3     9695   1884.0      9815
GR1885.1     9970   1884.0      9980    1882.0     9900   1880.0     9905   1878.0      9970
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GR1876.1   10000   1878.0   10010   1880.0   10020   1882.0   10075   1884.0   10155
GR1886.0   10275   1886.0   10425   1890.0   10575
QT     1    6200
NC 0.042   0.037   0.035
ET           7.1                                    8975
X1 10.49      27    9975    10015     250      140     170                          15
X2
GR1892.0    7615   1886.0    7635   1886.0    7650   1888.0    7680   1890.0    7890
GR1890.6    8075   1890.0    8505   1888.0    8975   1888.0    9215   1886.0    9420
GR1884.0    9640   1884.0    9860   1884.1    9890   1884.0    9925   1880.0    9935
GR1880.0    9975   1878.0    9995   1877.0   10000   1878.0   10005   1880.0   10015
GR1884.0   10035   1884.0   10170   1886.0   10260   1886.0   10325   1888.0   10360
GR1890.0   10430   1892.0   10705
NC                   0.3      0.5
X1 10.54      33    9934    10077     270.     220.     260.
K3    10                                                 1887.0   1888.5
BT     9    9450   1890.7   1890.7    9480   1891.6   1890.0    9520   1890.0   1888.0
BT  9700   1883.5   1886.0    9934   1887.7   1886.0   9938.9   1887.7   1885.7  10061.1
BT1888.8   1885.7  10077     1889.0   1888.0  10225     1890.0   1890.0
GR1894.0    7630   1892.0    7735   1890.0    7800   1888.0   7825.0   1889.0    7875
GR1890.0    7950   1892.0    7990   1892.0    8410   1890.0    8940   1890.0    9380
GR1890.7    9450   1890.     9480   1888.     9520   1886.     9700   1886.0    9934
GR1885.7   9938.9   1881.9   9939   1877.8    9956   1877.8   9974.5   1885.7   9974.6
GR1885.7   9977.5   1877.8   9977.6 1877.8  10022.5  1885.7  10022.6  1885.7  10025.3
GR1877.8  10025.4   1877.8  10043.8 1881.9   10061   1885.7  10061.1  1888.0   10077
GR 1890.    10225   1892.    10690   1894.0   11050
X1 10.55      38    9928    10075      82.      82.      82.
K3    10                                                 1887.2   1889.0
BT     8    9505   1890.0   1890.0    9565   1888.8   1888.0    9825   1889.0   1886.1
BT  9928   1887.2   1886.0   9938.9  1887.7   1885.9  10061.1   1888.8   1885.9   10075
BT1889.0   1888.0  10210     1890.0   1890.0
GR1896.0    7505   1894.0    7645   1892.0    7735   1890.0    7780   1888.0    7805
GR1888.0    7935   1890.0    7990   1892.0    7990   1893.1    8260   1892.0    8595
GR1890.0    8910   1890.0    9210   1892.0    9290   1890.0    9345   1890.7    9475
GR 1890.    9505   1888.     9565   1886.1    9825.  1886.0    9928   1885.9   9936.9
GR1892.1    9939   1878.0    9956   1878.0   9974.5  1885.9   9974.6  1885.9   9977.5
GR1878.0  9977.6   1878.0  10022.5  1885.9  10022.6  1885.9  10025.3  1878.0  10025.4
GR1878.0 10043.8   1882.1   10061   1885.9  10061.1  1888.0   10075    1890.    10210
GR 1892.    10665  1894.0   11030   1896.0   11380
NH     7    0.037    9849    0.035    9966    0.025   10020    0.035   10095    0.037
NH10100     0.10   11100     0.035  11275
ET           7.1                                    9391
X1 10.62      35    9966    10020     320      245     335
K2                                                                               15
GR1898.0    7620   1896.0    7630   1894.0    7665   1892.5    7710   1894.0    7795
GR1894.0    7885   1896.0    7975   1897.3    8035   1896.0    8109   1894.0    8429
GR1893.0    8549   1894.0    9104   1896.0    9139   1896.0    9204   1894.5    9224
GR1893.7    9275   1894.4    9308   1893.7    9359   1894.2    9391   1893.2    9554
GR1892.5    9849   1892.0    9891   1892.0    9936   1891.7    9966   1875.7   9997.5
GR1875.7  10002.5  1884.2   10020   1890.0   10082   1892.0   10095   1894.0   10100
GR1894.0   10255   1896.8   10550   1896.0   10805   1898.0   11100   1900.0   11275
NH     5    0.037    9965    0.025   10020    0.037   10068    0.10    11050    0.037
NH 11390
ET           7.1                                    9605
X110.627      35    9965    10020      62       62      62
GR1898.8    7500   1898.0    7605   1896.0    7635   1894.0    7670   1892.9    7705
GR1894.0    7775   1894.0    7880   1896.0    7975   1897.5    8035   1896.0    8130
GR1894.0    8450   1893.4    8540   1894.0    8970   1896.0    9145   1898.0    9175
GR1896.0    9255   1896.0    9605   1894.0    9695   1892.0    9740   1892.4    9965
GR1875.9  9997.5   1875.9  10002.5  1894.4   10020   1885.0   10050   1886.0   10060
GR1887.0   10068   1890.0   10085   1892.0   10095   1894.0   10115   1894.0   10255
GR1896.0   10540   1896.0   10810   1898.0   11050   1900.0   11250   1902.0   11390
NH     5    0.037    9935    0.025   10060    0.037   10109    0.10    11045    0.037
NH11375
ET           7.1                                    9195
X110.634      33    9935    10060      38       38      38
GR1898.9    7525   1898.0    7630   1896.0    7660   1894.0    7685   1893.1    7715
GR1894.0    7785   1894.0    7895   1896.0    7990   1897.7    8045   1896.0    8150
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GR1894.0     8470  1891.6     8540  1894.0     8440  1896.0     9160  1892.0     9195
GR1896.0     9605  1894.0     9685  1892.0     9770  1891.4     9935  1876.4     9965
GR1876.1    10000  1876.4    10035  1887.0    10060  1888.0    10068  1890.0    10090
GR1892.0    10100  1894.0    10110  1894.0    10245  1896.0    10545  1896.0    10805
GR1898.0    11045  1900.0    11155  1902.0    11375
NH       5  0.037     9935   0.018    10055   0.037    10105     0.10    10975   0.037
NH 11375
ET             7.1                             9435
X110.642        34     9935    10055       40      40       40
GR1899.8      7600  1898.0     7655  1896.0     7665  1894.0     7680  1893.5     7710
GR1894.0      7760  1894.5     7850  1896.0     7990  1898.0     8050  1896.0     8165
GR1894.0      8525  1894.0     8825  1896.0     9155  1898.0     9195  1898.0     9435
GR1896.0      9590  1894.0     9680  1889.5     9935  1896.5     9945  1876.5     9965
GR1876.2     10000  1876.5    10035  1896.5    10055  1887.0    10056  1888.0    10064
GR1890.0     10072  1892.0    10105  1894.0    10120  1894.0    10220  1896.0    10330
GR1896.0     10550  1898.0    10575  1900.0    11120  1902.0    11375
NH       5  0.037     9945   0.018    10058   0.037    10083     0.10    10975   0.037
NH 11380
ET             7.1                             9485
X110.649        34  9956.9  10043.1       39      39       39
GR1899.6      7520  1898.0     7635  1896.0     7670  1894.3     7720  1895.2     7900
GR1896.0      7975  1898.0     8040  1898.6     8070  1898.0     8130  1896.0     8200
GR1894.4      8540  1896.0     9075  1898.0     9215  1898.0     9435  1896.0     9620
GR1894.0      9690  1892.0     9930  1886.5     9945  1886.3  9956.9  1876.8     9957
GR1876.3     10000  1876.8    10043  1886.3  10043.1  1886.5    10048  1887.0    10058
GR1888.0     10061  1890.0    10070  1892.0    10083  1894.0    10095  1896.0    10275
GR1896.0     10555  1898.0    10575  1900.0    11120  1902.0    11380
X110.650        34  9956.9  10043.1        1       1        1
X3      10
GR1899.6      7520  1898.0     7635  1896.0     7670  1894.3     7720  1895.2     7900
GR1896.0      7975  1898.0     8040  1898.6     8070  1898.0     8130  1896.0     8200
GR1894.4      8540  1896.0     9075  1898.0     9215  1898.0     9485  1896.0     9620
GR1894.0      9690  1892.0     9930  1886.5     9945  1889.3  9956.9  1876.8     9957
GR1876.3     10000  1876.8    10043  1889.3  10043.1  1886.5    10048  1887.0    10058
GR1888.0     10061  1890.0    10070  1892.0    10083  1894.0    10095  1896.0    10275
GR1896.0     10555  1898.0    10575  1900.0    11120  1902.0    11380
NH       5  0.037     9941   0.018    10066   0.037    10135     0.10    10735   0.037
NH 11355
X110.657        37  9956.9  10043.1       41      41       41
X3      10
GR1899.8      7525  1898.0     7605  1896.0     7675  1894.2     7725  1896.0     7965
GR1898.0      8030  1898.8     8080  1898.0     8135  1896.0     8210  1894.9     8530
GR1896.0      9005  1898.0     9210  1900.0     9410  1898.0     9500  1896.0     9655
GR1894.0      9700  1892.0     9865  1892.0     9885  1890.0     9941  1889.0     9944
GR1890.0      9947  1894.5  9956.9  1884.9     9957  1884.5    10000  1884.9    10043
GR1894.5  10043.1   1894.3    10048  1889.5    10060  1888.5    10063  1889.5    10066
GR1891.0     10068  1892.0    10135  1894.0    10140  1896.0    10735  1898.0    10950
GR1900.0     11115  1902.0    11355
X110.658        37  9956.9  10043.1        1       1        1
X3      10
GR1899.8      7525  1898.0     7605  1896.0     7675  1894.2     7725  1896.0     7965
GR1898.0      8030  1898.8     8080  1898.0     8135  1896.0     8210  1894.9     8530
GR1896.0      9005  1898.0     9210  1900.0     9410  1898.0     9500  1896.0     9655
GR1894.0      9700  1892.0     9865  1892.0     9885  1890.0     9941  1889.0     9944
GR1890.0      9947  1894.5  9956.9  1884.9     9957  1884.5    10000  1884.9    10043
GR1894.5  10043.1   1894.3    10048  1889.5    10060  1888.5    10063  1889.5    10066
GR1891.0     10068  1892.0    10135  1894.0    10140  1896.0    10735  1898.0    10950
GR1900.0     11115  1902.0    11355
NH       3  0.037     9942   0.018    10073   0.037    11345
X110.665        34     9940    10060       40      40       40
X3      10
GR1899.2      7480  1898.0     7530  1896.0     7685  1896.0     7935  1898.0     8015
GR1898.9      8065  1898.0     8125  1896.0     8220  1895.5     8510  1896.0     8560
GR1898.0      9205  1900.0     9365  1900.0     9455  1898.0     9545  1896.0     9680
GR1894.0      9750  1892.0     9871  1889.8     9894  1894.3     9940  1894.8     9945
GR1884.8      9965  1884.5    10000  1884.8    10035  1894.8    10055  1894.3    10060
GR1891.3     10067  1890.3    10070  1891.3    10073  1892.0    10130  1894.0    10140
GR1896.0     10640  1898.0    10575  1900.0    11105  1902.0    11345
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NC 0.037   0.037   0.025
X110.686      23    9940   10060     115      90     113
X2                                                          15
X3    10                                  1898.6  1898.6
GR1904.0    6430  1902.0    6820  1900.0    7810  1899.9    7970  1899.7    8085
GR1899.7    8220  1898.5    8530  1898.6    8800  1898.1    9140  1898.0    9700
GR1898.0    9915  1896.0    9935  1894.3    9940  1885.1    9960  1884.7   10000
GR1885.1   10040  1894.3   10060  1896.0   10070  1898.0   10130  1898.0   10450
GR1900.0   10800  1902.0   11360  1904.0   11500
SB  1.25    1.56     2.8             70.       5  1194.8    1.74  1885.5  1885.1
NC 0.037   0.037   0.035
X110.697      22    9945   10060      55.      55.      55.
X2                   1.    1899.  1898.6                      15
X3    10                                  1899.0  1899.0
BT    17    6430  1904.0             6820  1902.0             7810  1900.0
BT  7970  1899.9             8095  1899.7             8220  1859.7             8530
BT1898.5             8800  1898.6             9140  1898.1             9695  1899.
BT          9795  1899.             9895  1899.             9995  1859.
BT 10075  1899.             10320  1900.0            10870  1902.0            11270
BT1904.0
GR1904.0    6430  1902.0    6820  1900.0    7810  1899.9    7970  1899.7    8085
GR1899.7    8220  1898.5    8530  1898.6    8800  1898.1    9140  1898.0    9625
GR1896.0    9935  1890.0    9945  1886.0    9970  1885.5    9975  1885.5   10025
GR1886.0   10035  1890.0   10060  1896.0   10070  1898.0   10090  1900.0   10290
GR1902.0   10850  1904.0   11300
X1 10.70      23    9945   10060      15.      15.      15.
X2                                                          15
X3    10                                  1898.6  1898.6
GR1906.0    6210  1904.0    6560  1903.9    6805  1902.0    7235  1903.1    7380
GR1903.0    7630  1902.8    8185  1902.     8465  1900.     9160  1898.     9560
GR 1898.    9900  1890.     9945  1886.     9965  1885.5    9975  1885.5   10025
GR 1886.   10035  1890.    10060  1890.    10075  1898.    10145  1900.0   10235
GR1902.0   10905  1904.0   11205  1906.0   11575
SB  1.25    1.56     2.8             70.       5  1194.8    1.74  1885.5  1885.5
X1 10.71                             60.      60.      60.
X2                   1.    1895.  1899.5                      15
X3    10                                  1899.0  1899.0
BT    19    6210  1906.0             6560  1904.0             6805  1903.9
BT  7285  1902.0             7380  1903.1             7680  1903.0             8185
BT1902.8             8465  1902.0             9045  1901.9             9160  1900.0
BT          9535  1899.6             9930  1899.5            10100  1899.5
BT 10200  1899.9            10235  1900.0            10400  1900.9            10805
BT1902.0            11205  1904.0            11575  1906.0
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T1          CORFCD/COE OVERFLOW STUDY
T2          JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3          LAS VEGAS WASH - NONDAMAGING FLOWS
J1                2                    -1
J2     -1                -1
J3    150
BT      1     1000
NC                                 0.1       0.3
NH      5     0.34     6660      0.10      8790     0.042     9965     0.035    10055     0.037
NH  10835
ET              7.1                                          9965
X1  10.34        53     9965     10055       450       420      450
X2                                                                                        15
GR1888.3      6015  1886.0      6025  1884.0      6075  1882.0      6295  1880.0      6315
GR1878.9      6420  1880.0      6480  1883.0      6505  1880.0      6515  1876.0      6535
GR1876.0      6545  1882.0      6560  1884.0      6660  1886.0      6925  1884.0      7025
GR1884.0      7110  1886.0      7210  1886.0      7320  1884.0      7380  1884.0      7445
GR1882.0      7460  1881.3      7480  1882.0      7505  1884.0      7670  1882.0      7685
GR1882.0      7775  1884.0      7805  1884.2      7900  1884.0      8035  1882.7      8100
GR1884.0      8170  1884.3      8215  1884.0      8270  1882.0      8390  1881.6      8450
GR1882.0      8500  1882.0      8600  1882.0      8790  1881.6      8875  1882.0      8975
GR1882.0      9185  1881.6      9635  1882.0      9775  1882.0      9965  1872.0      9995
GR1872.0     10030  1880.0     10055  1882.0     10190  1882.0     10310  1884.0     10350
GR1884.8     10675  1886.0     10810  1888.0     10835
NH      4     0.10     8095     0.042     9905     0.035    10020     0.037    10575
ET              7.1                                          9870
K1  10.46        28     9905     10020       600       700      600
X2                                                                                        15
GR1890.0      7310  1886.0      7375  1886.0      7420  1888.0      7445  1888.0      7680
GR1888.0      8095  1888.0      8515  1887.2      8750  1886.0      8925  1886.0      8975
GR1886.6      9215  1886.0      9350  1884.0      9450  1883.3      9695  1884.0      9815
GR1885.1      9870  1884.0      9880  1882.0      9900  1880.0      9905  1878.0      9970
GR1876.1     10000  1878.0     10010  1880.0     10020  1882.0     10075  1884.0     10155
GR1886.0     10275  1888.0     10425  1890.0     10575
NC  0.042    0.037    0.035
ET              7.1                                          8975
X1  10.49        27     9925     10035       250       140      170
X2                                                                                        15
GR1892.0      7615  1886.0      7635  1886.0      7650  1888.0      7680  1890.0      7890
GR1890.6      8075  1890.0      8505  1888.0      8975  1888.0      9215  1886.0      9420
GR1884.0      9640  1884.0      9860  1884.1      9890  1884.0      9925  1880.0      9935
GR1880.0      9975  1878.0      9995  1877.0     10000  1878.0     10005  1880.0     10015
GR1884.0     10035  1884.0     10170  1886.0     10260  1886.0     10325  1888.0     10360
GR1890.0     10430  1892.0     10705
NC                                 0.3       0.5
X1  10.54        33     9934     10077       270.      220.      260.
X3     10                                                    1887.0  1888.5
BT      9     9450  1890.7      1890.7      9483  1891.6      1890.0      9520  1890.0      1888.0
BT   9700  1888.5  1896.0      9934  1887.7  1886.0      9938.9  1887.7  1885.7  10061.1
BT1888.8  1885.7     10077  1889.0  1888.0     10225  1890.0  1890.0
GR1894.0      7630  1892.0      7735  1890.0      7800  1888.0      7825.0  1888.0      7875
GR1890.0      7950  1892.0      7990  1892.0      8410  1890.0      8940  1890.0      9380
GR1890.7      9450  1890.       9480  1888.       9520  1886.       9710  1886.0      9934
GR1885.7      9938.9  1881.9      9939  1877.8      9956  1877.8      9974.5  1885.7      9974.6
GR1885.7      9977.5  1877.8      9977.6  1877.8     10022.5  1885.7     10022.6  1885.7     10025.3
GR1877.8     10025.4  1877.8     10043.8  1881.9     10061  1885.7     10061.1  1888.0     10077
GR 1890.      10225  1892.      10680  1894.0     11050
X1  10.55        38     9928     10075       82.       82.       82.
X3     10                                                    1887.2  1889.0
BT      8     9505  1890.0      1890.0      9565  1888.8      1888.0      9825  1888.0      1886.1
BT   9928  1887.2  1886.0      9938.9  1887.7  1885.9     10061.1  1888.8  1885.9     10075
BT1889.0  1888.0     10210  1890.0  1890.0
GR1896.0      7595  1894.0      7645  1892.0      7735  1890.0      7780  1888.0      7805
GR1888.0      7835  1890.0      7850  1892.0      7980  1893.1      8260  1892.0      8595
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GR1890.0	9910	1890.0	9210	1892.0	9290	1890.0	9345	1890.7	9475
GR 1890.	9525	1888.	9565	1886.1	9825.	1886.0	9928	1885.9	9938.9
GR1882.1	9939	1878.0	9956	1878.0	9574.5	1885.9	9574.6	1885.9	9577.5
GR1878.0	9977.6	1878.0	10022.5	1885.9	10022.6	1885.9	10025.3	1878.0	10025.4
GR1878.0	10143.8	1882.1	10061	1895.9	10061.1	1888.0	10075	1890.	10210
GR 1892.	10665	1894.0	11030	1896.0	11380				
NH 7	0.037	9849	0.035	9966	0.025	10020	0.035	10095	0.037
NH10100	0.10	11100	0.035	11275					
ET	7.1					9391			
X1 10.62	35	9966	10020	320	245	335			
X2									15
GR1898.0	7620	1896.0	7630	1894.0	7665	1892.5	7710	1894.0	7795
GR1894.0	7885	1896.0	7975	1897.3	8035	1896.0	8119	1894.0	8429
GR1893.0	8549	1894.0	9104	1896.0	9139	1896.0	9204	1894.5	9224
GR1893.7	9275	1894.4	9309	1893.7	9359	1894.2	9391	1893.2	9554
GR1892.5	9849	1892.0	9951	1892.0	9936	1891.7	9956	1875.7	9997.5
GR1875.7	10102.5	1884.2	10020	1890.0	10082	1892.0	10095	1894.0	10100
GR1894.0	10255	1896.8	10590	1896.0	10805	1898.0	11100	1900.0	11275
NH 5	0.037	9965	0.025	10020	0.037	10068	0.10	11050	0.037
NH 11390									
ET	7.1					9605			
X110.627	35	9965	10020	62	62	62			
GR1898.8	7500	1898.0	7605	1896.0	7635	1894.0	7670	1892.9	7705
GR1894.0	7775	1894.0	7890	1896.0	7975	1897.5	8035	1896.0	8130
GR1894.0	8450	1893.4	8540	1894.0	8970	1896.0	9145	1898.0	9175
GR1896.0	9265	1896.0	9605	1894.0	9695	1892.0	9740	1892.4	9965
GR1875.9	9997.5	1875.9	10002.5	1894.4	10020	1885.0	10050	1886.0	10060
GR1887.0	10058	1890.0	10085	1892.0	10095	1894.0	10105	1894.0	10255
GR1896.0	10540	1896.0	10810	1898.0	11050	1900.0	11250	1902.0	11390
NH 5	0.037	9935	0.025	10060	0.037	10100	0.10	11045	0.037
NH11375									
ET	7.1					9195			
X110.634	33	9935	10060	38	38	38			
GR1898.5	7525	1898.0	7630	1896.0	7660	1894.0	7685	1893.1	7715
GR1894.0	7785	1894.0	7895	1896.0	7990	1897.7	8045	1896.0	8150
GR1894.0	8470	1893.6	8540	1894.0	8940	1896.0	9160	1898.0	9195
GR1896.0	9605	1894.0	9685	1892.0	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10905
GR1898.0	11045	1900.0	11195	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					9435			
X110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7890	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8925	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9680	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					9485			
X110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9435	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
X110.650	34	9956.9	10043.1	1	1	1			
X3 10									
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9435	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957

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GR1576.5   10000   1876.8   10045   1889.3  10043.1   1886.5   10048   1887.0   10058
GR1888.9   10061   1890.0   10070   1892.0   10083   1894.0   10095   1896.0   10275
GR1896.0   10555   1898.0   10975   1900.0   11120   1902.0   11380
NH     5   0.037     9941   0.018    10065   0.037    10135    0.10    10735   0.037
NH 11355
X110.657       37   9956.9  10043.1       41      41       41
X3    10
GR1899.8     7525   1898.0     7605   1896.0     7675   1894.2     7725   1896.0     7965
GR1898.0     8030   1898.8     8080   1898.0     8135   1896.0     8210   1894.9     8530
GR1896.0     9005   1898.0     9210   1900.0     9410   1898.0     9500   1896.0     9655
GR1894.0     9700   1892.0     9865   1892.0     9885   1890.0     9941   1889.0     9944
GR1890.0     9947   1894.5   9956.9   1876.9     9957   1876.5    10000   1876.9    10043
GR1894.5  10043.1   1894.3    10048   1889.5    10060   1889.5    10063   1889.5    10066
GR1891.0    10068   1892.0    10135   1894.0    10140   1896.0    10735   1898.0    10950
GR1900.0    11115   1902.0    11355
X110.658       37   9956.9  10043.1        1       1        1
X3    10
GR1899.8     7525   1898.0     7605   1896.0     7675   1894.2     7725   1896.0     7965
GR1898.0     8030   1898.8     8080   1898.0     8135   1896.0     8210   1894.9     8530
GR1896.0     9005   1898.0     9210   1900.0     9410   1898.0     9500   1896.0     9655
GR1894.0     9700   1892.0     9865   1892.0     9885   1890.0     9941   1889.0     9944
GR1890.0     9947   1894.5   9956.9   1884.9     9957   1884.5    10000   1884.9    10043
GR1894.5  10043.1   1894.3    10048   1889.5    10060   1888.5    10063   1889.5    10066
GR1891.0    10068   1892.0    10135   1894.0    10140   1896.0    10735   1898.0    10950
GR1900.0    11115   1902.0    11355
NH     3   0.037     9940   0.018    10073   0.037    11345
X110.665       34     9940    10060       40      40       40
K3    10
GR1899.2     7430   1898.0     7530   1896.0     7685   1896.0     7935   1898.0     8015
GR1898.9     8065   1898.0     8125   1896.0     8220   1895.5     8510   1896.0     8560
GR1898.0     9205   1900.0     9365   1900.0     9455   1898.0     9545   1896.0     9680
GR1894.0     9750   1892.0     9871   1889.8     9894   1894.3     9940   1894.8     9945
GR1884.8     9965   1884.5    10000   1884.8    10035   1894.8    10055   1894.3    10060
GR1891.3    10067   1890.3    10070   1891.3    10073   1892.0    10130   1894.0    10140
GR1896.0    10640   1898.0    10975   1900.0    11105   1902.0    11345
NC 0.037   0.037    0.025
X110.686       23     9940    10060      115      90      113
X2                                                                        15
K3    10                                                 1898.6   1898.6
GR1904.0     6430   1902.0     6920   1900.0     7810   1899.9     7970   1899.7     8085
GR1899.7     8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9700
GR1898.0     9915   1896.0     9935   1894.3     9940   1885.1     9950   1884.7    10000
GR1885.1    10040   1894.3    10060   1896.0    10070   1898.0    10100   1898.0    10450
GR1900.0    10800   1902.0    11360   1904.0    11500
SB  1.25     1.56      2.8              70.        5   1194.8     1.74   1885.5   1885.1
NC 0.037   0.037    0.035
K110.697       22     9945    10060      55.      55.      55.
X2                       1.     1899.  1898.6                                    15
K3    10                                                 1899.0   1899.0
BT    17     6430   1904.0                 6820   1902.0                7810   1900.0
BT  7970   1899.9                 8085   1899.7                8220   1899.7                8530
BT1898.5                 8800   1898.6                9140   1898.1                9695   1899.
BT          9795   1899.                 9895   1899.                9995   1899.
BT 10075   1899.                10320   1900.0               10870   1902.0               11270
BT1904.0
GR1904.0     6430   1902.0     6920   1900.0     7810   1899.9     7970   1899.7     8085
GR1899.7     8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9625
GR1896.0     9935   1890.0     9945   1886.0     9970   1885.5     9975   1885.5    10025
GR1886.0    10035   1890.0    10060   1896.0    10070   1898.0    10090   1900.0    10290
GR1902.0    10850   1904.0    11300
X1 10.70       23     9945    10060      15.      15.      15.
X2                                                                        15
K3    10                                                 1898.6   1898.6
GR1906.0     6210   1904.0     6560   1903.9     6805   1902.0     7235   1903.1     7380
GR1903.0     7680   1902.8     8185   1902.      8465   1900.      9160   1898.      9560
GR 1898.     9900   1890.      9945   1886.      9965   1885.5     9975   1885.5    10025
GR 1886.    10035   1890.     10060   1890.     10075   1898.     10145   1900.0    10235
GR1902.0    10805   1904.0    11205   1906.0    11575
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SB  1.25     1.56      2.8                  70.        5   1194.8      1.74   1885.5   1885.5
X1 10.71                                    60.       60.      60.
X2                          1.     1899.   1899.5                                        15
X3     10                                                  1899.0   1899.0
BT     19     6210   1906.0                5560   1904.0              6805   1903.9
BT   7285   1902.0                7380   1903.1             7680   1903.0                8185
BT1902.8                 8465   1902.0                9045   1901.9                9160   1900.0
BT              9535   1899.6                9930   1899.5             10100   1899.5
BT 10200   1899.9                10235   1900.0             10400   1900.9                10805
BT1902.0                11205   1904.0                11575   1906.0
EJ


ER
EOF..
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     30
  10.34        SECNO=River Mileage above Advanced Wastewater Treatment Plant
  10.34        Centerline Station at 10000
  10.34        Reduced 25-year flow by 900 cfs due to divided flow at x10.46 and
  10.34           x10.49 (rejoins main channel at x 10.15)
  10.46        Centerline Station at 10000
  10.49        Centerline Station at 5188
  10.54        Centerline Station at 10000
  10.55        **** Civic Center Drive (new structure) ****
  10.55        Normal Bridge
  10.55        1* Debris Load
  10.55        Centerline Station at 10000
  10.62        Centerline Station at 10000
 10.627        Centerline Station at 10000
 10.634        Centerline Station at 10000
 10.642        Centerline Station at 10000
 10.649        Centerline Station at 10000
 10.650        Centerline Station at 10000
 10.657        Centerline Station at 10000
 10.658        **** Drop Structure ****
 10.658        Centerline Station at 10000
 10.665        Centerline Station at 10000
 10.686        Centerline Station at 10000
 10.697        **** I-15 North ****
 10.697        2* Debris Load
 10.697        Centerline Station at 10000
  10.70        Centerline Station at 10000
  10.71        **** I-15 South ****
  10.71        2* Debris Load
  10.71        Centerline Station at 10000
  10.74        Centerline Station at 2355
T1             CCRFCD/COE OVERFLOW STUDY
T2             JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3             LAS VEGAS WASH - 25-YEAR
J1                   2                   -1
J2       -1                -1
J3      150
ET        1     5300
NC                                 0.1       0.3
NH        5     0.04      6660    0.10      8790    0.042     9965    0.035    10055    0.037
NH    10835
ET                7.1                                          9965
X1    10.34        53      9965   10055       450      420       450
X2                                                                                      15
GR1888.0       6015   1886.0      6025   1884.0      6075   1882.0      6295   1880.0      6315
GR1878.9       6420   1880.0      6480   1883.0      6505   1880.0      6515   1876.0      6535
GR1876.0       6545   1882.0      6560   1884.0      6660   1886.0      6925   1884.0      7025
GR1884.0       7110   1886.0      7210   1886.0      7320   1884.0      7380   1884.0      7445
GR1882.0       7460   1881.3      7480   1882.0      7505   1884.0      7670   1882.0      7685
GR1882.0       7775   1884.0      7805   1884.2      7900   1884.0      8035   1882.7      8100
GR1884.0       8170   1884.3      8215   1884.0      8270   1882.0      8390   1881.6      8450
GR1882.0       8500   1882.0      8600   1882.0      8790   1881.6      8875   1882.0      8975
GR1882.0       9185   1881.6      9635   1882.0      9775   1882.0      9955   1872.0      9995
GR1872.0      10030   1880.0     10055   1882.0     10190   1882.0     10310   1884.0     10350
GR1884.8      10575   1886.0     10510   1888.0     10835
NH        4     0.10      8095    0.042     9905    0.035    10020    0.037    10575
ET                7.1                                          9870
X1    10.46        28      9905   10020       600      700       600
X2                                                                                      15
GR1890.0       7310   1886.0      7375   1886.0      7420   1888.0      7445   1888.0      7680
GR1888.0       8095   1888.0      8515   1887.2      8750   1886.0      8925   1886.0      8975
GR1886.6       9215   1886.0      9390   1884.0      9450   1883.3      9695   1884.0      9815
GR1885.1       9870   1884.0      9880   1882.0      9900   1880.0      9915   1878.0      9970
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GR1576.1   10090   1878.0   10010   1880.0   10020   1882.0   10075   1884.0   10155
GR1886.0   10275   1888.0   10425   1890.0   10575
BT     1    6200
VC 0.042   0.037   0.035
ET             7.1                                    8075
X1 10.49       27    9975    10015     250      140     170                              15
X2
GR1892.0    7615   1886.0    7635   1886.0    7650   1888.0    7680   1890.0    7890
GR1890.6    8075   1890.0    8505   1888.0    8975   1888.0    9215   1886.0    9420
GR1884.0    9640   1884.0    9860   1884.1    9890   1884.0    9925   1880.0    9935
GR1880.0    9975   1878.0    9955   1877.0   10000   1878.0   10005   1880.0   10015
GR1884.0   10035   1894.0   10170   1886.0   10260   1886.0   10325   1886.0   10360
GR1890.0   10430   1892.0   10705
VC                     0.3     0.5
X1 10.54       33    9934    10077     270.     220.     260.
X3    10                                                 1887.0   1888.5
BT     9    9450   1890.7   1890.7    9480   1891.6   1890.0    9520   1890.0   1888.0
BT  9700   1888.5   1886.0    9934   1887.7   1886.0   9938.9   1887.7   1885.7  10061.1
BT1886.8   1885.7   10077   1889.0   1886.0   10225   1890.0   1890.0
GR1894.0    7630   1892.0    7735   1890.0    7800   1888.0   7825.0   1888.0    7875
GR1890.0    7950   1892.0    7990   1892.0    8410   1890.0    8940   1890.0    9380
GR1890.7    9450   1890.     9480   1888.     9520   1886.     9700   1886.0    9934
GR1885.7   9938.9   1881.9   9939   1877.8    9956   1877.8   9974.5   1885.7   9974.6
GR1885.7   9977.5   1877.8   9977.6   1877.8  10022.5   1885.7  10022.6   1885.7  10025.3
GR1877.8  10025.4   1877.8  10043.8   1881.9   10061   1885.7  10061.1   1888.0   10077
GR 1890.   10225    1892.   10680    1894.0   11050
X1 10.55       38    9928    10075      82.      82.      82.
X3    10                                                 1887.2   1889.0
BT     8    9505   1890.0   1890.0    9565   1888.8   1888.0    9825   1888.0   1886.1
BT  9928   1887.2   1886.0   9938.9   1887.7   1885.9  10061.1   1888.8   1885.9   10075
BT1889.0   1888.0   10210   1890.0   1890.0
GR1896.0    7505   1894.0    7645   1892.0    7735   1890.0    7780   1888.0    7805
GR1888.0    7835   1890.0    7990   1892.0    7980   1893.1    8260   1892.0    8595
GR1890.0    8910   1890.0    9210   1892.0    9290   1890.0    9345   1890.7    9475
GR 1890.    9505    1888.    9565   1886.1    9825.   1886.0    9928   1885.9   9938.9
GR1882.1    9939   1878.0    9956   1878.0   9974.5   1885.9   9974.6   1885.9   9977.5
GR1878.0   9977.6   1878.0  10022.5   1885.9  10022.6   1885.9  10025.3   1878.0  10025.4
GR1878.0  10043.8   1882.1   10061   1885.9  10061.1   1888.0   10075    1890.    10210
GR 1892.   10665   1894.0   11030   1896.0   11380
VH     7   0.037    9849    0.035    9966    0.025   10020    0.035   10095    0.037
VH10100     0.10   11100    0.035   11275
ET             7.1                                    9391
K1 10.62       35    9966    10020     320      245     335
K2                                                                                    15
GR1898.0    7620   1896.0    7630   1894.0    7665   1892.5    7710   1894.0    7795
GR1894.0    7885   1896.0    7975   1897.3    8035   1896.0    8109   1894.0    8429
GR1893.0    8549   1894.0    9104   1896.0    9139   1896.0    9204   1894.5    9224
GR1893.7    9275   1894.4    9308   1893.7    9359   1894.2    9391   1893.2    9554
GR1892.5    9849   1892.0    9951   1892.0    9936   1891.7    9966   1875.7   9997.5
GR1875.7  10002.5   1884.2   10020   1890.0   10082   1892.0   10095   1894.0   10100
GR1894.0   10255   1896.8   10590   1896.0   10805   1898.0   11100   1900.0   11275
VH     5   0.037    9965    0.025   10020    0.037   10068     0.10   11050    0.037
VH 11390
ET             7.1                                    9605
X110.627       35    9965    10020      62       62      62
GR1898.8    7500   1898.0    7605   1896.0    7635   1894.0    7670   1892.9    7705
GR1894.0    7775   1894.0    7880   1896.0    7975   1897.5    8035   1896.0    8130
GR1894.0    8450   1893.4    8540   1894.0    8970   1896.0    9145   1898.0    9175
GR1896.0    9265   1896.0    9605   1894.3    9695   1892.0    9740   1892.4    9965
GR1875.9   9997.5   1875.9  10002.5   1884.4   10020   1885.0   10050   1886.0   10060
GR1887.0   10068    1890.0   10095    1892.0   10095   1894.0   10105   1894.0   10255
GR1896.0   10540    1896.0   10810    1898.0   11050   1900.0   11250   1902.0   11390
VH     5   0.037    9935    0.025   10060    0.037   10100     0.10   11045    0.037
VH11375
ET             7.1                                    9195
X110.634       33    9935    10060      38       38      38
GR1898.9    7525   1898.0    7630   1896.0    7660   1894.0    7685   1893.1    7715
GR1894.0    7785   1894.0    7895   1896.0    7990   1897.7    8045   1896.0    8150
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GR1894.0	8470	1893.6	9540	1894.0	8940	1896.0	9160	1898.0	9195
GR1896.0	9605	1894.9	9685	1892.3	9770	1891.4	9935	1876.4	9965
GR1876.1	10000	1876.4	10035	1887.0	10060	1888.0	10068	1890.0	10090
GR1892.0	10100	1894.0	10110	1894.0	10245	1896.0	10545	1896.0	10805
GR1898.0	11045	1900.0	11155	1902.0	11375				
NH 5	0.037	9935	0.018	10055	0.037	10105	0.10	10975	0.037
NH 11375									
ET	7.1					9435			
K110.642	34	9935	10055	40	40	40			
GR1899.8	7600	1898.0	7655	1896.0	7665	1894.0	7680	1893.5	7710
GR1894.0	7760	1894.5	7890	1896.0	7990	1898.0	8050	1896.0	8165
GR1894.0	8525	1894.0	8825	1896.0	9155	1898.0	9195	1898.0	9435
GR1896.0	9590	1894.0	9680	1889.5	9935	1886.5	9945	1876.5	9965
GR1876.2	10000	1876.5	10035	1886.5	10055	1887.0	10056	1888.0	10064
GR1890.0	10072	1892.0	10105	1894.0	10120	1894.0	10220	1896.0	10330
GR1896.0	10550	1898.0	10975	1900.0	11120	1902.0	11375		
NH 5	0.037	9945	0.018	10058	0.037	10083	0.10	10975	0.037
NH 11380									
ET	7.1					9485			
K110.649	34	9956.9	10043.1	39	39	39			
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1886.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1886.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
K110.650	34	9956.9	10043.1	1	1	1			
K3 10									
GR1899.6	7520	1898.0	7635	1896.0	7670	1894.3	7720	1895.2	7900
GR1896.0	7975	1898.0	8040	1898.6	8070	1898.0	8130	1896.0	8200
GR1894.4	8540	1896.0	9075	1898.0	9215	1898.0	9485	1896.0	9620
GR1894.0	9690	1892.0	9930	1886.5	9945	1889.3	9956.9	1876.8	9957
GR1876.3	10000	1876.8	10043	1889.3	10043.1	1886.5	10048	1887.0	10058
GR1888.0	10061	1890.0	10070	1892.0	10083	1894.0	10095	1896.0	10275
GR1896.0	10555	1898.0	10975	1900.0	11120	1902.0	11380		
NH 5	0.037	9941	0.018	10066	0.037	10135	0.10	10735	0.037
NH 11355									
K110.657	37	9956.9	10043.1	41	41	41			
K3 10									
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1876.9	9957	1876.5	10000	1876.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10068	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
K110.658	37	9956.9	10043.1	1	1	1			
K3 10									
GR1899.8	7525	1898.0	7605	1896.0	7675	1894.2	7725	1896.0	7965
GR1898.0	8030	1898.8	8080	1898.0	8135	1896.0	8210	1894.9	8530
GR1896.0	9005	1898.0	9210	1900.0	9410	1898.0	9500	1896.0	9655
GR1894.0	9700	1892.0	9865	1892.0	9885	1890.0	9941	1889.0	9944
GR1890.0	9947	1894.5	9956.9	1884.9	9957	1884.5	10000	1884.9	10043
GR1894.5	10043.1	1894.3	10048	1889.5	10060	1888.5	10063	1889.5	10066
GR1891.0	10068	1892.0	10135	1894.0	10140	1896.0	10735	1898.0	10950
GR1900.0	11115	1902.0	11355						
NH 3	0.037	9940	0.018	10073	0.037	11345			
X110.665	34	9940	10060	40	40	40			
K3 10									
GR1899.2	7480	1898.0	7530	1896.0	7685	1896.0	7935	1898.0	8015
GR1898.9	8065	1898.0	8125	1896.0	8220	1895.5	8510	1896.0	8960
GR1898.0	9205	1900.0	9365	1900.0	9455	1898.0	9545	1896.0	9680
GR1894.8	9750	1892.0	9871	1889.8	9894	1894.3	9940	1894.8	9945
GR1884.8	9965	1894.5	10000	1884.8	10035	1894.8	10055	1894.3	10060
GR1891.3	10067	1890.3	10070	1891.3	10073	1892.0	10130	1894.0	10140
GR1896.0	10640	1898.0	10975	1900.0	11105	1902.0	11345		

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NC 0.037    0.037    0.025
X110.686        23     9940    10060      115       90      113
X2                                                                      15
X3     10                                          1898.6   1898.6
GR1904.0      6430   1902.0     6820   1900.0     7810   1899.9     7970   1899.7     8085
GR1899.7      8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9700
GR1898.0      9915   1896.0     9935   1894.3     9940   1885.1     9960   1884.7    10000
GR1885.1     10040   1894.3    10060   1896.0    10070   1898.0    10100   1898.0    10450
GR1900.0     10900   1902.0    11360   1904.0    11500
SB  1.25      1.56      2.8                70.        5   1194.8     1.74   1885.5   1885.1
NC 0.037    0.037    0.035
X110.697        22     9945    10060       55.       55.      55.
X2                      1.     1895.   1898.6                                   15
X3     10                                          1899.0   1899.0
BT     17     6430   1904.0                6820   1902.0                7810   1900.0
BT   7970   1899.9                8085   1899.7                8220   1899.7                8530
BT1898.5                8800   1898.6                9140   1898.1                9695   1899.
BT            9795   1899.              9895   1899.              9995   1899.
BT 10075   1899.              10320   1900.0              10870   1902.0              11270
BT1904.0
GR1904.0      6430   1902.0     6820   1900.0     7810   1899.9     7970   1899.7     8085
GR1899.7      8220   1898.5     8530   1898.6     8800   1898.1     9140   1898.0     9625
GR1896.0      9935   1890.0     9945   1896.0     9970   1885.5     9975   1885.5    10025
GR1886.0     10035   1890.0    10060   1896.0    10070   1898.0    10090   1900.0    10290
GR1902.0     10950   1904.0    11300
X1 10.70        23     9945    10060       15.       15.      15.
X2                                                                      15
X3     10                                          1898.6   1898.6
GR1906.0      6210   1904.0     6560   1903.9     6805   1902.0     7285   1903.1     7380
GR1903.0      7680   1902.8     8185   1902.      8465   1900.      9150   1898.      9560
GR 1898.      9900   1890.      9945   1886.      9965   1885.5     9975   1885.5    10025
GR 1886.     10035   1890.     10060   1890.     10075   1898.     10145   1900.0    10235
GR1902.0     10935   1904.0    11205   1906.0    11575
SB  1.25      1.56      2.8                70.        5   1194.8     1.74   1885.5   1885.5
X1 10.71                                 60.       60.      60.
X2                      1.     1895.   1899.5                                   15
X3     10                                          1899.0   1899.0
BT     19     6210   1906.0                6560   1904.0                6805   1903.9
BT   7285   1902.0                7380   1903.1                7680   1903.0                8185
BT1902.8                8465   1902.0                9045   1901.9                9160   1900.0
BT            9535   1899.6              9930   1899.5              10100   1899.5
BT 10200   1899.9             10235   1900.0              10400   1900.9              10805
BT1902.0             11205   1904.0             11575   1906.0
EJ


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EOF..
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1**********
* WATER SURFACE PROFILES *
* VERSION OF NOVEMBER 1976 *
* UPDATED AUGUST 1983 *
* *
* RUN DATE 29-APR-88 TIME 12:58:41 *
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* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                   X
X     X  X        X     X             X
X     X  XXXXXXX   XXXXX              XXXXXXX
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29-APR-88 12:58:41

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HEC2 RELEASE DATED NOV 75 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CORECD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - NONDAMAGING FLOWS

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	-1.000000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	1.000	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8790.000	0.042	9565.000	0.035	10055.000	0.037
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9565.000	0.000	0.000	0.000
X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1885.000	6015.000	1886.000	6025.000	1884.000	6075.000	1882.000	6295.000	1880.000	6315.000
GR	1878.000	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000

GR	1854.300	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8575.000
GR	1882.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9955.000
GR	1872.000	10030.000	1890.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.300	10675.000	1886.000	10910.000	1888.000	10835.000	0.000	0.000	0.000	0.000
NH	4.000	0.100	8055.000	0.042	9905.000	0.035	10020.000	0.037	10575.000	0.000
ET	0.100	7.100	0.000	0.000	0.000	0.000	9870.000	0.000	0.000	0.000
X1	10.450	28.000	9905.000	10020.000	600.000	700.000	600.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1890.000	7310.000	1886.000	7375.000	1886.000	7420.000	1888.000	7445.000	1888.000	7680.000
GR	1888.300	8095.000	1888.000	8515.000	1887.200	8750.000	1886.000	8925.000	1886.000	8975.000
GR	1886.600	9215.000	1886.000	9390.000	1884.000	9450.000	1883.300	9695.000	1884.000	9815.000
GR	1885.100	9870.000	1884.000	9880.000	1882.000	9900.000	1880.000	9905.000	1878.000	9970.000
GR	1876.100	10000.000	1878.000	10010.000	1880.000	10020.000	1882.000	10075.000	1884.000	10155.000
GR	1886.000	10275.000	1888.000	10425.000	1890.000	10575.000	0.000	0.000	0.000	0.000

NC	0.042	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.100	7.100	0.000	0.000	0.000	0.000	8075.000	0.000	0.000	0.000
X1	10.490	27.000	9925.000	10035.000	250.000	140.000	170.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1892.000	7615.000	1886.000	7635.000	1886.000	7650.000	1888.000	7680.000	1890.000	7890.000
GR	1890.600	8075.000	1890.000	8505.000	1888.000	8975.000	1889.000	9215.000	1886.000	9420.000
GR	1884.000	9640.000	1884.000	9860.000	1884.100	9890.000	1884.000	9925.000	1880.000	9935.000
GR	1880.000	9975.000	1878.000	9995.000	1877.000	10000.000	1878.000	10005.000	1880.000	10015.000
GR	1884.000	10035.000	1884.000	10170.000	1886.000	10260.000	1886.000	10325.000	1888.000	10360.000
GR	1890.000	10430.000	1892.000	10705.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	10.540	33.000	9934.000	10077.000	270.000	220.000	260.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1887.000	1888.500	0.000
BT	9.000	9450.000	1890.700	1890.700	9480.000	1891.600	1890.000	9520.000	1890.000	1888.000
BT	9700.000	1889.500	1886.000	9934.000	1887.700	1886.000	9938.900	1887.700	1885.700	10061.100
BT	1888.300	1885.700	10077.000	1889.000	1888.000	10225.000	1890.000	1890.000	0.000	0.000
GR	1894.000	7630.000	1892.000	7735.000	1890.000	7800.000	1888.000	7825.000	1888.000	7875.000
GR	1890.000	7950.000	1892.000	7990.000	1892.000	8410.000	1890.000	8540.000	1890.000	9380.000
GR	1890.700	9450.000	1890.000	9480.000	1888.000	9520.000	1886.000	9700.000	1886.000	9934.000
GR	1885.700	9938.900	1881.900	9939.000	1877.800	9956.000	1877.800	9974.500	1885.700	9974.600
GR	1885.700	9977.500	1877.800	9977.600	1877.800	10022.500	1885.700	10022.600	1885.700	10025.300
GR	1877.300	10025.400	1877.800	10043.800	1881.900	10061.000	1885.700	10061.100	1888.000	10077.000
GR	1890.000	10225.000	1892.000	10690.000	1894.000	11050.000	0.000	0.000	0.000	0.000
X1	10.550	38.000	9928.000	10075.000	82.000	82.000	82.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1887.200	1889.000	0.000
BT	8.000	9505.000	1890.000	1890.000	9565.000	1888.800	1888.000	9825.000	1888.000	1886.100
BT	9928.000	1887.200	1886.000	9938.900	1887.700	1885.900	10061.100	1888.800	1885.500	10075.000
BT	1889.000	1888.000	10210.000	1890.000	1890.000	0.000	0.000	0.000	0.000	0.000
GR	1896.000	7505.000	1894.000	7645.000	1892.000	7735.000	1890.000	7780.000	1888.000	7805.000
GR	1888.000	7835.000	1890.000	7890.000	1892.000	7980.000	1893.100	8260.000	1892.000	8595.000
GR	1890.000	8910.000	1890.000	9210.000	1892.000	9290.000	1890.000	9345.000	1890.700	9475.000
GR	1890.000	9505.000	1888.000	9565.000	1886.100	9825.000	1886.000	9928.000	1885.900	9938.900
GR	1882.100	9939.000	1878.000	9956.000	1878.000	9974.500	1885.900	9974.600	1885.900	9977.500
GR	1878.000	9977.600	1878.000	10022.500	1885.900	10022.600	1885.900	10025.300	1878.000	10025.400
GR	1878.000	10043.800	1882.100	10061.000	1885.900	10061.100	1888.000	10075.000	1890.000	10210.000
GR	1892.000	10665.000	1894.000	11030.000	1896.000	11380.000	0.000	0.000	0.000	0.000
NH	7.000	0.037	9849.000	0.035	9966.000	0.025	10020.000	0.035	10095.000	0.037
NH	10100.000	0.100	11100.000	0.035	11275.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9391.000	0.000	0.000	0.000
X1	10.520	35.000	9966.000	10020.000	320.000	245.000	335.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1898.000	7620.000	1896.000	7630.000	1894.000	7665.000	1892.500	7710.000	1894.000	7795.000
GR	1894.000	7885.000	1896.000	7975.000	1897.300	8035.000	1896.000	8109.000	1894.000	8429.000
GR	1893.000	8549.000	1894.000	9104.000	1896.000	9139.000	1896.000	9204.000	1894.500	9224.000

GR	1893.700	9275.000	1894.400	9308.000	1893.700	9359.000	1894.200	9391.000	1893.200	9554.000
GR	1892.500	9849.000	1892.000	9891.000	1892.000	9936.000	1891.700	9966.000	1875.700	9957.500
GR	1875.700	10002.500	1884.200	10020.000	1890.000	10082.000	1892.000	10095.000	1894.000	10100.000
GR	1894.000	10255.000	1896.800	10590.000	1896.000	10805.000	1898.000	11100.000	1900.000	11275.000

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NH	5.000	0.037	9965.000	0.025	10020.000	0.037	10068.000	0.100	11050.000	0.037
NH	11390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9605.000	0.000	0.000	0.000
X1	10.627	35.000	9965.000	10020.000	62.000	62.000	62.000	0.000	0.000	0.000
GR	1898.800	7500.000	1898.000	7605.000	1896.000	7635.000	1894.000	7670.000	1892.900	7705.000
GR	1894.000	7775.000	1894.000	7880.000	1896.000	7975.000	1897.500	8035.000	1896.000	8130.000
GR	1894.000	8450.000	1893.400	8540.000	1894.000	8970.000	1896.000	9145.000	1898.000	9175.000
GR	1896.000	9265.000	1895.000	9605.000	1894.000	9695.000	1892.000	9740.000	1892.400	9965.000
GR	1875.900	9997.500	1875.900	10002.500	1884.400	10020.000	1885.000	10050.000	1886.000	10060.000
GR	1887.000	10068.000	1890.000	10085.000	1892.000	10095.000	1894.000	10105.000	1894.000	10255.000
GR	1896.000	10540.000	1896.000	10810.000	1898.000	11050.000	1900.000	11250.000	1902.000	11390.000

NH	5.000	0.037	9935.000	0.025	10060.000	0.037	10100.000	0.100	11045.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9195.000	0.000	0.000	0.000
X1	10.634	33.000	9935.000	10060.000	38.000	38.000	38.000	0.000	0.000	0.000
GR	1898.900	7525.000	1893.000	7630.000	1896.000	7660.000	1894.000	7685.000	1893.100	7715.000
GR	1894.000	7785.000	1894.000	7895.000	1896.000	7990.000	1897.700	8045.000	1896.000	8150.000
GR	1894.000	8470.000	1893.600	8540.000	1894.000	8940.000	1896.000	9160.000	1898.000	9195.000
GR	1896.000	9605.000	1894.000	9685.000	1892.000	9770.000	1891.400	9935.000	1876.400	9965.000
GR	1876.100	10000.000	1876.400	10035.000	1887.000	10060.000	1888.000	10068.000	1890.000	10090.000
GR	1892.000	10100.000	1894.000	10110.000	1894.000	10245.000	1896.000	10545.000	1896.000	10805.000
GR	1898.000	11045.000	1900.000	11195.000	1902.000	11375.000	0.000	0.000	0.000	0.000

NH	5.000	0.037	9935.000	0.018	10055.000	0.037	10105.000	0.100	10975.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9435.000	0.000	0.000	0.000
X1	10.642	34.000	9935.000	10055.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.300	7600.000	1898.000	7655.000	1896.000	7665.000	1894.000	7680.000	1893.500	7710.000
GR	1894.000	7760.000	1894.500	7890.000	1896.000	7990.000	1898.000	8050.000	1896.000	8165.000
GR	1894.000	8525.000	1894.000	8825.000	1896.000	9155.000	1898.000	9195.000	1898.000	9435.000
GR	1896.000	9590.000	1894.000	9680.000	1889.500	9935.000	1886.500	9945.000	1876.500	9965.000
GR	1876.200	10000.000	1876.500	10035.000	1886.500	10055.000	1887.000	10056.000	1888.000	10064.000
GR	1890.000	10072.000	1892.000	10105.000	1894.000	10120.000	1894.000	10220.000	1896.000	10330.000
GR	1896.000	10550.000	1898.000	10975.000	1900.000	11120.000	1902.000	11375.000	0.000	0.000

NH	5.000	0.037	9945.000	0.018	10058.000	0.037	10083.000	0.100	10975.000	0.037
NH	11380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	9485.000	0.000	0.000	0.000
X1	10.649	34.000	9956.900	10043.100	39.000	39.000	39.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1898.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000

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X1	10.650	34.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1899.500	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1898.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1889.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1889.300	10043.100	1885.500	10048.000	1887.000	10058.000

GR	1898.000	10061.000	1898.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000
NH	5.000	0.037	9941.000	0.018	10066.000	0.037	10135.000	0.100	10735.000	0.037
NH	11355.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.557	37.000	9956.900	10043.100	41.000	41.000	41.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1899.300	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1858.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1876.900	9957.000	1876.500	10000.000	1876.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1889.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.558	37.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1899.300	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1858.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1884.900	9957.000	1884.500	10000.000	1884.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1889.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	0.037	9940.000	0.018	10073.000	0.037	11345.000	0.000	0.000	0.000
X1	10.565	34.000	9940.000	10060.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1899.200	7480.000	1898.000	7530.000	1896.000	7685.000	1896.000	7935.000	1898.000	8015.000
GR	1898.900	8065.000	1898.000	8125.000	1896.000	8220.000	1895.500	8510.000	1896.000	8960.000
GR	1898.000	9205.000	1900.000	9365.000	1900.000	9455.000	1898.000	9545.000	1896.000	9680.000
GR	1894.000	9750.000	1892.000	9871.000	1889.800	9894.000	1894.300	9940.000	1894.800	9545.000
GR	1884.300	9965.000	1884.500	10000.000	1884.800	10035.000	1894.800	10055.000	1894.300	10060.000
GR	1891.300	10067.000	1890.300	10070.000	1891.300	10073.000	1892.000	10130.000	1894.000	10140.000
GR	1896.000	10640.000	1898.000	10975.000	1900.000	11105.000	1902.000	11345.000	0.000	0.000
NC	0.037	0.037	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.586	23.000	9940.000	10060.000	115.000	90.000	113.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1898.600	1898.600	0.000
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1899.700	8085.000
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1898.000	9700.000
GR	1898.000	9915.000	1896.000	9935.000	1894.300	9940.000	1885.100	9960.000	1884.700	10000.000
GR	1885.100	10040.000	1894.300	10060.000	1896.000	10070.000	1898.000	10100.000	1898.000	10450.000

GR	1900.000	10800.000	1902.000	11360.000	1904.000	11500.000	0.000	0.000	0.000	0.000
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.100
NC	0.037	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.597	22.000	9945.000	10060.000	55.000	55.000	55.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	1899.000	1898.600	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1899.000	1899.000	0.000
BT	17.000	6430.000	1904.000	0.000	6820.000	1902.000	0.000	7810.000	1900.000	0.000
BT	7970.000	1899.900	0.000	8085.000	1899.700	0.000	8220.000	1899.700	0.000	8530.000
BT	1898.500	0.000	8800.000	1898.600	0.000	9140.000	1898.100	0.000	9695.000	1899.000
BT	0.000	9795.000	1899.000	0.000	9895.000	1899.000	0.000	9995.000	1899.000	0.000
BT	10075.000	1899.000	0.000	10320.000	1900.000	0.000	10870.000	1902.000	0.000	11270.000
BT	1904.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1899.700	8085.000
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1898.000	9625.000
GR	1896.000	9935.000	1890.000	9945.000	1886.000	9970.000	1885.500	9975.000	1885.500	10025.000
GR	1886.000	10035.000	1890.000	10060.000	1896.000	10070.000	1898.000	10090.000	1900.000	10290.000
GR	1902.000	10850.000	1904.000	11300.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	10.700	23.000	9945.000	10060.000	15.000	15.000	15.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1898.600	1898.600	0.000
GR	1906.300	6210.000	1904.800	6560.000	1903.900	6805.000	1902.000	7285.000	1903.100	7380.000
GR	1903.300	7680.000	1902.800	8185.000	1902.000	8465.000	1900.000	9160.000	1898.000	9560.000
GR	1898.300	9900.000	1890.000	9945.000	1886.000	9965.000	1885.500	9975.000	1885.500	10025.000
GR	1886.300	10035.000	1890.000	10060.000	1890.000	10075.000	1898.000	10145.000	1900.000	10235.000
GR	1902.000	10805.000	1904.000	11205.000	1906.000	11575.000	0.000	0.000	0.000	0.000
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.500
X1	10.710	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	1899.000	1899.500	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1899.000	1899.000	0.000
BT	19.100	6210.000	1906.000	0.000	6560.000	1904.000	0.000	6805.000	1903.900	0.000
BT	7285.000	1902.000	0.000	7380.000	1903.100	0.000	7680.000	1903.000	0.000	8185.000
BT	1902.300	0.000	8465.000	1902.000	0.000	9945.000	1901.900	0.000	9160.000	1900.000
BT	0.000	9535.000	1899.600	0.000	9930.000	1899.500	0.000	10100.000	1899.500	0.000
BT	10200.000	1899.900	0.000	10235.000	1900.000	0.000	10400.000	1900.500	0.000	10805.000
BT	1902.000	0.000	11205.000	1904.000	0.000	11575.000	1906.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 10.340
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		9965.0	10835.0	TYPE=	1	TARGET=	-9965.000		
10.34	2.69	1874.69	1874.69	0.00	1875.84	1.14	0.00	0.00	1882.00
1000.	0.	1000.	0.	0.	117.	0.	0.	0.	1880.00
0.00	0.00	8.58	0.00	0.000	0.035	0.037	0.000	1872.00	9986.92
0.014069	450.	450.	420.	0	52	0	0.00	51.50	10038.42

3
FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1874.69

STA= 9987. 10055.
PER Q= 100.0
AREA= 116.5
VEL= 8.6

1490 NH CARD USED
*SECNO 10.460

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=		9873.0	10575.0	TYPE=	1	TARGET=	-9870.000		
10.46	4.13	1880.23	0.00	0.00	1880.55	0.32	4.63	0.08	1880.00
1000.	0.	1000.	0.	0.	220.	1.	2.	1.	1880.00
0.04	0.02	4.55	0.57	0.042	0.035	0.037	0.000	1876.10	9904.42
0.004865	600.	600.	700.	5	0	0	0.00	121.98	10026.40

3
FLOW DISTRIBUTION FOR SECNO= 10.46 CWSEL= 1880.23

STA= 9904. 9905. 10020. 10026.

PER Q=	0.0	100.0	0.1
AREA=	0.1	219.8	0.7
VEL=	0.3	4.5	0.7

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.490

3470 ENCROACHMENT STATIONS= 8075.0 10705.0 TYPE= 1 TARGET= -8075.000

10.49	4.20	1881.20	0.00	0.00	1881.83	0.64	1.19	0.09	1884.00
1000.	0.	1000.	0.	0.	156.	0.	3.	2.	1884.00
0.04	0.00	6.41	0.30	0.042	0.035	0.037	0.000	1877.00	9932.01
0.010904	250.	170.	140.	3	0	0	0.00	88.97	10020.98

FLOW DISTRIBUTION FOR SECNO= 10.49 CWSEL= 1881.20

STA= 9932. 10035.
PER Q= 100.0
AREA= 156.1
VEL= 6.4

CCHV= 0.300 CEHV= 0.500
*SECNO 10.540

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 9 MIN ELTRD= 1887.70 MAX ELLC= 1890.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1887.00 ELREA= 1888.50

10.54	4.50	1882.30	0.00	0.00	1882.38	0.08	0.38	0.17	1886.00
1000.	0.	1000.	0.	0.	453.	0.	5.	2.	1888.00
0.08	0.00	2.21	0.00	0.042	0.035	0.037	0.000	1877.80	9938.99
0.000543	270.	260.	220.	3	0	0	0.00	116.25	10061.01

*SECNO 10.550

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 1887.20 MAX ELLC= 1890.00

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1887.20 ELREA= 1889.00

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    10.59      4.35   1882.35      0.00      0.00   1882.43      0.08      0.85      0.00   1886.00
    1000.        0.      1000.        0.        0.       434.        0.        6.        2.   1868.00
      0.09      0.00      2.30      0.00     0.042     0.035     0.037     0.000   1878.00   9938.99
 0.000618        82.       82.       82.         2         0         0      0.00    116.23  10061.01
0
 1490 NH CARD USED
 *SECNO 10.620

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     9391.0    11275.0   TYPE=       1   TARGET=    -9391.000
    10.62      6.57   1882.27      0.00      0.00   1883.35      1.08      0.42      0.50   1891.70
    1000.        0.      1000.        0.        0.       120.        0.        8.        3.   1884.20
      0.10      0.00      8.35      0.00     0.042     0.025     0.037     0.000   1875.70   9984.56
 0.003758         320.      335.      245.         2         0         0      0.00     31.46  10016.03
0
 FLOW DISTRIBUTION FOR SECNO=      10.62          CWSEL=   1882.27

 STA=    9935.    10020.
   PER Q=    100.0
    AREA=    119.8
     VEL=      8.3

 1490 NH CARD USED
 *SECNO 10.627

 3470 ENCROACHMENT STATIONS=     9605.0    11390.0   TYPE=       1   TARGET=    -9605.000
    10.63      6.65   1882.55      0.00      0.00   1883.59      1.04      0.23      0.01   1892.40
    1000.        0.      1000.        0.        0.       122.        1.        8.        3.   1884.40
      0.10      0.00      8.19      0.00     0.042     0.025     0.037     0.000   1875.50   9984.42
 0.003575         62.       62.       62.         3         0         0      0.00     31.76  10016.17
0
 1490 NH CARD USED
 *SECNO 10.634
1
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         QLOSS     BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        ARCB       VOL        TWA     LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IOC        ICONT      CORAR      TOPWID       ENDST


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     9195.0    11375.0   TYPE=       1   TARGET=    -9195.000
    10.63      7.76   1883.86      0.00      0.00   1883.90      0.04      0.01      0.30   1891.40
    1000.        0.      1000.        0.        0.       654.        0.        8.        3.   1887.00
      0.11      0.00      1.53      0.00     0.042     0.025     0.037     0.000   1876.10   9950.07
 0.000058         38.       38.       38.         2         0         0      0.00    102.53  10052.60
0
 1490 NH CARD USED
 *SECNO 10.642

 3470 ENCROACHMENT STATIONS=     9435.0    11375.0   TYPE=       1   TARGET=    -9435.000
    10.64      7.66   1883.86      0.00      0.00   1883.90      0.04      0.00      0.00   1889.50
    1000.        0.      1000.        0.        0.       634.        0.        9.        3.   1886.50
      0.11      0.00      1.58      0.00     0.042     0.018     0.037     0.000   1876.20   9950.28
 0.000032         40.       40.       40.         2         0         0      0.00     59.45  10049.72
0
 1490 NH CARD USED
 *SECNO 10.649

 3470 ENCROACHMENT STATIONS=     9485.0    11380.0   TYPE=       1   TARGET=    -9485.000
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10.65	7.56	1883.86	0.00	0.00	1883.90	0.04	0.00	0.00	1886.30	
1000.	0.	1000.	0.	0.	629.	0.	10.	3.	1886.30	
0.12	0.00	1.59	0.00	0.042	0.018	0.037	0.000	1876.30	9956.93	
0.000032	39.	39.	39.	0	0	0	0.00	86.15	10043.07	

*SECNO 10.650

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1889.30 ELREA= 1889.30

10.65	7.56	1883.86	0.00	0.00	1883.90	0.04	0.00	0.00	1889.30
1000.	0.	1000.	0.	0.	629.	0.	10.	3.	1889.30
0.12	0.00	1.59	0.00	0.042	0.018	0.037	0.000	1876.30	9956.94
0.000032	1.	1.	1.	0	0	0	0.00	86.11	10043.06

1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST

*SECNO 10.657

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1894.50 ELREA= 1894.50

10.66	7.36	1883.86	0.00	0.00	1883.90	0.04	0.00	0.00	1894.50
1000.	0.	1000.	0.	0.	616.	0.	10.	3.	1894.50
0.13	0.00	1.62	0.00	0.042	0.018	0.037	0.000	1876.50	9956.96
0.000034	41.	41.	41.	0	0	0	0.00	86.08	10043.04

*SECNO 10.658

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSE
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1894.50 ELREA= 1894.50

10.66	1.80	1886.30	1886.30	0.00	1887.12	0.82	0.00	0.39	1894.50
1000.	0.	1000.	3.	0.	138.	1.	10.	3.	1894.50
0.13	0.00	7.27	0.00	0.042	0.018	0.037	0.000	1884.50	9956.99
0.004325	1.	1.	1.	20	11	0	0.00	86.03	10043.01

1490 NH CARD USED
*SECNO 10.665
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1894.30 ELREA= 1894.30

10.66	1.97	1886.47	1886.47	0.00	1887.35	0.88	0.17	0.03	1894.30
1000.	0.	1000.	0.	0.	133.	0.	10.	3.	1894.30
0.13	0.00	7.52	0.00	0.042	0.018	0.037	0.000	1884.50	9961.66
0.004029	40.	40.	40.	2	8	0	0.00	76.66	10038.34

*SECNO 10.686

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1898.60 ELREA= 1898.60

10.69	2.79	1887.49	0.00	0.00	1887.81	0.32	0.30	0.17	1894.30
1000.	0.	1000.	0.	0.	219.	0.	11.	4.	1894.30
0.14	0.00	4.57	0.00	0.037	0.025	0.037	0.000	1884.70	9954.82
0.001840	115.	113.	90.	3	0	0	0.00	90.36	10045.18

FLOW DISTRIBUTION FOR SECNO= 10.69 CWSEL= 1887.49

STA= 9955. 10060.
PER Q= 100.0
AREA= 219.0
VEL= 4.6

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	ROLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.50	1.74	1885.50	1885.10

*SECNO 10.697
CLASS A LOW FLOW

3420 BRIDGE W.S.= 1887.50 BRIDGE VELOCITY=, 6.60 CALCULATED CHANNEL AREA=, 137.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD
0.00	1888.30	0.11	0.	1000.	1195.	1195.	1899.00	1898.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1899.00 ELREA= 1899.00

10.70	2.10	1887.60	0.00	0.00	1888.30	0.70	0.49	0.00	1890.00
1000.	0.	1000.	0.	0.	148.	0.	11.	4.	1890.00
0.14	0.00	6.74	0.00	0.037	0.035	0.037	0.000	1885.50	9960.02
0.012013	55.	55.	55.	0	0	0	0.00	84.96	10044.98

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1887.60

STA= 9960. 10060.
PER Q= 100.0
AREA= 148.5
VEL= 6.7

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.700

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1898.60 ELREA= 1898.60

10.70	2.64	1888.14	0.00	0.00	1888.51	0.37	0.11	0.10	1890.00

```
     1000.        0.      1000.        0.        0.      206.        0.       11.        4.    1890.00
      0.14       0.00      4.86       0.00     0.037     0.035     0.037     0.000  1885.50    9954.30
 0.004654         15.       15.        15.         4         0         0      0.00    94.08   10048.38

 FLOW DISTRIBUTION FOR SECNO=     10.70          CWSEL=   1888.14

 STA=    9954.    10060.
   PER Q=    100.0
    AREA=    205.6
     VEL=      4.9


 SPECIAL BRIDGE

 SB  XK          XKOR       COEF       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      1.25        1.56       2.80       0.00     70.00       5.00    1194.80       1.74    1885.50    1885.50

 *SECNO 10.710
 CLASS A LOW FLOW

 3420 BRIDGE W.S.=   1889.04 BRIDGE VELOCITY=.      5.67      CALCULATED CHANNEL AREA=.      176.

  EGPRS       EGLWC        H3         QWEIR      QLOW       BAREA    TRAPEZOID       ELLC       ELTRD
                                                                        AREA
      0.00   1888.60       0.13          0.      1000.      1195.      1195.      1899.00    1899.50


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=     1899.00 ELREA=     1899.00

     10.71       2.77  1888.27       0.00       0.00  1888.60       0.33       0.09       0.00  1890.00
     1000.         0.    1000.         0.         0.     218.          1.        11.         4.  1890.00
      0.14       0.00      4.59       0.00     0.037     0.035     0.037     0.000  1885.50    9953.66
 0.003929         60.       60.        60.         0         0         0      0.00    95.51   10049.17

 FLOW DISTRIBUTION FOR SECNO=     10.71          CWSEL=   1888.27

 STA=    9954.    10060.
   PER Q=    100.0
    AREA=    217.6
     VEL=      4.6

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 ********************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ********************************************************

 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

   LAS VEGAS WASH - NONDA

 SUMMARY PRINTOUT TABLE  150

       SECNO      XLCH       ELTRD      ELLC       ELMIN      Q          CWSEL      CRIWS      EG         10K*S      VCH        AREA       .01K
 *     10.340      0.00       0.00       0.00    1872.00    1000.00    1874.69    1874.69    1875.84     140.69       8.58     116.50      84.31
       10.460    600.00       0.00       0.00    1876.10    1000.00    1880.23       0.00    1880.55      48.65       4.55     220.58     143.38
```

	10.490	170.00	0.00	0.00	1877.00	1000.00	1881.20	0.00	1881.83	109.04	6.41	156.06	95.76
	10.540	260.00	1887.70	1890.70	1877.80	1000.00	1882.30	0.00	1882.38	5.43	2.21	452.93	429.29
	10.550	82.00	1887.20	1890.00	1878.00	1000.00	1882.35	0.00	1882.43	6.18	2.30	434.28	402.15
	10.620	335.00	0.00	0.00	1875.70	1000.00	1882.27	0.00	1883.35	37.58	8.35	119.79	163.12
	10.627	62.00	0.00	0.00	1875.90	1000.00	1882.55	0.00	1883.59	35.75	8.19	122.06	167.26
	10.634	38.00	0.00	0.00	1876.10	1000.00	1883.86	0.00	1883.90	0.58	1.53	654.38	1310.57
	10.642	40.00	0.00	0.00	1876.20	1000.00	1883.86	0.00	1883.90	0.32	1.58	634.22	1759.92
	10.649	39.00	0.00	0.00	1876.30	1000.00	1883.86	0.00	1883.90	0.32	1.59	629.48	1770.22
	10.650	1.00	0.00	0.00	1876.30	1000.00	1883.86	0.00	1883.90	0.32	1.59	629.30	1769.36
	10.657	41.00	0.00	0.00	1876.50	1000.00	1883.86	0.00	1883.90	0.34	1.62	616.38	1711.53
*	10.658	1.00	0.00	0.00	1884.50	1000.00	1886.30	1886.30	1887.12	43.25	7.27	137.57	152.05
*	10.665	40.00	0.00	0.00	1884.50	1000.00	1886.47	1886.47	1887.35	40.29	7.52	133.06	157.53
	10.686	113.00	0.00	0.00	1884.70	1000.00	1887.49	0.00	1887.81	18.40	4.57	219.02	233.11
	10.697	55.00	1898.60	1899.00	1885.50	1000.00	1887.60	0.00	1888.30	120.13	6.74	148.46	91.24
	10.700	15.00	0.00	0.00	1885.50	1000.00	1888.14	0.00	1888.51	46.54	4.86	205.61	146.59

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	10.710	60.00	1898.50	1899.00	1885.50	1000.00	1888.27	0.00	1888.60	39.29	4.59	217.63	159.53

LAS VEGAS WASH - NONDA

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	10.340	1000.00	1874.69	0.00	0.00	0.00	51.50	0.00
	10.450	1000.00	1880.23	0.00	5.54	0.00	121.98	600.00
	10.490	1000.00	1881.20	0.00	0.97	0.00	88.97	170.00
	10.540	1000.00	1882.30	0.00	1.11	0.00	116.25	260.00
	10.550	1000.00	1882.35	0.00	0.04	0.00	116.23	82.00
	10.620	1000.00	1882.27	0.00	-0.08	0.00	31.46	335.00
	10.627	1000.00	1882.55	0.00	0.28	0.00	31.76	62.00
	10.634	1000.00	1883.86	0.00	1.31	0.00	102.53	38.00
	10.642	1000.00	1883.86	0.00	0.00	0.00	99.45	40.00

	10.649	1000.00	1883.86	0.00	0.00	0.00	86.15	39.00
	10.650	1000.00	1883.86	0.00	0.00	0.00	86.11	1.00
	10.657	1000.00	1883.86	0.00	0.00	0.00	86.08	41.00
*	10.658	1000.00	1896.30	0.00	2.44	0.00	86.03	1.00
*	10.665	1000.00	1886.47	0.00	0.17	0.00	76.68	40.00
	10.696	1000.00	1887.49	0.00	1.02	0.00	93.36	113.00
	10.697	1000.00	1887.60	0.00	0.11	0.00	84.96	55.00
	10.709	1000.00	1888.14	0.00	0.54	0.00	94.08	15.00
	10.710	1000.00	1888.27	0.00	0.13	0.00	95.51	60.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.658 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.658 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.658 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.665 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.665 PROFILE= 1 MINIMUM SPECIFIC ENERGY

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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EOF..

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1*************************************************
*  WATER SURFACE PROFILES                       *
*  VERSION OF NOVEMBER 1976                     *
*  UPDATED AUGUST 1983                          *
*                                               *
*  RUN DATE   5-FEB-88 TIME   23:09:55          *
*************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
*****************************************
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X      X  XXXXXXX   XXXXX                XXXXX
X      X  X        X     X              X     X
X      X  X        X                    X     X
XXXXXXXX  XXXX     X           XXXXX    XXXXX
X      X  X        X                    X
X      X  X        X     X              X
X      X  XXXXXXX  XXXXX                XXXXXXX
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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SPLIT FLOW BEING PERFORMED

SE

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TN        LOB BREAKOUT D/S OF I-15
NS     4   10.55   10.665   10.34    0.037   0.0040
NG     5   1895.9       10  1896.0      250  1898.0      500  1899.0
```

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C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	3.	0.	-1.000000	0.00	0.0	0.	0.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
QT	1.000	82000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.040	6660.000	0.100	8750.000	0.042	9965.000	0.035	10055.000	0.037	
NH	10835.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	SECNDRIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT										
	CENTERLINE STATION AT 10000										
X1	10.340	53.000	9965.000	10055.000	450.000	420.000	450.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
GR	1888.000	6315.000	1886.000	6325.000	1884.000	6375.000	1882.000	6295.000	1880.000	6315.000	
GR	1878.900	6420.000	1880.000	6480.000	1883.000	6505.000	1880.000	6515.000	1876.000	6535.000	
GR	1876.000	6545.000	1882.000	6560.000	1884.000	6660.000	1886.000	6925.000	1884.000	7025.000	
GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000	
GR	1882.000	7460.000	1881.300	7481.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000	
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7900.000	1884.000	8035.000	1882.700	8100.000	
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000	
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000	
GR	1882.000	9185.000	1881.600	9635.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000	
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000	
GR	1884.600	10675.000	1886.000	10810.000	1888.000	10835.000	0.000	0.000	0.000	0.000	
QT	1.000	77000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NH	4.000	0.100	8095.000	0.042	9905.000	0.035	10020.000	0.037	10575.000	0.000	
	CENTERLINE STATION AT 10000										
X1	10.460	28.000	9905.000	10020.000	600.000	730.000	600.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
GR	1890.000	7310.000	1886.000	7375.000	1886.000	7420.000	1888.000	7445.000	1888.000	7680.000	
GR	1888.000	8095.000	1883.000	8515.000	1887.200	8750.000	1886.000	8925.000	1886.000	8975.000	
GR	1886.600	9215.000	1886.000	9390.000	1884.000	9450.000	1883.300	9695.000	1884.000	9815.000	
GR	1885.100	9870.000	1884.000	9880.000	1882.000	9900.000	1880.000	9905.000	1878.000	9970.000	
GR	1876.100	10000.000	1878.000	10010.000	1880.000	10020.000	1882.000	10075.000	1884.000	10155.000	
GR	1886.000	10275.000	1888.000	10425.000	1890.000	10575.000	0.000	0.000	0.000	0.000	

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NC	0.042	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	CENTERLINE STATION AT 5188										
X1	10.490	27.000	9975.000	10015.000	250.000	140.000	170.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
GR	1892.000	7615.000	1886.000	7635.000	1886.000	7650.000	1888.000	7680.000	1890.000	7890.000	
GR	1890.600	8075.000	1890.000	8505.000	1888.000	8975.000	1888.000	9215.000	1886.000	9420.000	
GR	1884.000	9640.000	1884.000	9860.000	1884.100	9890.000	1884.000	9925.000	1880.000	9935.000	
GR	1880.000	9975.000	1878.000	9995.000	1877.000	10000.000	1878.000	10005.000	1880.000	10015.000	
GR	1884.000	10035.000	1884.000	10170.000	1886.000	10260.000	1886.000	10325.000	1888.000	10360.000	
GR	1890.000	10435.000	1892.000	10705.000	0.000	0.000	0.000	0.000	0.000	0.000	
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000	
	CENTERLINE STATION AT 10000										
X1	10.540	33.000	9934.000	10077.000	270.000	220.000	260.000	0.000	0.000	0.000	
BT	9.000	9450.000	1850.700	1850.700	9480.000	1891.600	1890.000	9520.000	1890.000	1888.000	
BT	9700.000	1883.500	1886.000	9934.000	1887.700	1886.000	9938.900	1887.700	1885.700	10061.100	
BT	1888.800	1885.700	10077.000	1889.000	1888.000	10225.000	1890.000	1890.000	0.000	0.000	
GR	1894.000	7630.000	1892.000	7735.000	1890.000	7800.000	1888.000	7825.000	1888.000	7875.000	
GR	1890.000	7950.000	1892.000	7990.000	1892.000	8410.000	1890.000	8940.000	1890.000	9380.000	
GR	1890.700	9451.000	1893.000	9480.000	1888.000	9520.000	1886.000	9700.000	1886.000	9934.000	
GR	1885.700	9938.900	1881.900	9939.000	1877.800	9956.000	1877.800	9974.500	1885.700	9974.600	
GR	1885.700	9977.500	1877.800	9977.600	1877.800	10022.500	1885.700	10022.600	1885.700	10025.300	
GR	1877.800	10025.400	1877.800	10043.800	1881.900	10061.000	1885.700	10061.100	1888.000	10077.000	
GR	1890.000	10225.000	1892.000	10680.000	1894.000	11050.000	0.000	0.000	0.000	0.000	

**** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
NORMAL BRIDGE
1' DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.550	37.000	9928.000	10075.000	82.000	82.000	82.000	0.000	0.000	0.000
BT	8.000	9525.000	1890.000	1890.000	9565.000	1888.800	1888.000	9825.000	1888.000	1886.100
BT	9928.000	1887.200	1886.000	9938.500	1887.700	1885.900	10061.100	1888.800	1885.900	10075.000
BT	1889.000	1886.000	10210.000	1890.000	1890.000	0.000	0.000	0.000	0.000	0.000
GR	1896.000	7505.000	1894.000	7645.000	1892.000	7735.000	1890.000	7780.000	1888.000	7805.000
GR	1888.000	7835.000	1890.000	7890.000	1892.000	7980.000	1893.100	8260.000	1892.000	8595.000
GR	1890.000	8910.000	1890.000	9210.000	1892.000	9290.000	1890.000	9345.000	1890.700	9475.000
GR	1890.000	9505.000	1888.000	9565.000	1886.100	9825.000	1886.000	9928.000	1885.900	9938.900
GR	1862.100	9939.000	1878.000	9956.000	1876.000	9974.500	1885.900	9974.600	1885.900	9977.500
GR	1878.000	9977.600	1878.000	10022.500	1885.900	10022.600	1885.900	10025.300	1878.000	10025.400
GR	1878.000	10043.800	1882.100	10161.100	1885.900	10161.100	1888.000	10175.100	1890.000	10210.000
GR	1892.000	10665.000	1894.000	11520.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	7.000	0.037	9849.000	0.035	9966.000	0.025	10020.000	0.035	10095.000	0.037
NH	10100.000	0.100	11100.000	0.035	11275.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.620	37.000	9966.000	10020.000	220.000	245.000	225.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1898.000	7620.000	1896.000	7630.000	1894.000	7665.000	1892.500	7710.000	1894.000	7795.000
GR	1894.000	7885.000	1896.000	7975.000	1897.300	8035.000	1896.000	8109.100	1894.000	8429.000
GR	1893.000	8549.000	1894.000	9104.000	1896.000	9139.000	1896.000	9204.000	1894.500	9224.000
GR	1893.700	9275.000	1894.400	9308.000	1893.700	9359.000	1894.200	9391.000	1892.200	9554.000
GR	1892.500	9849.000	1892.000	9891.000	1892.000	9936.000	1891.700	9966.000	1875.700	9997.500
GR	1875.700	10002.500	1884.200	10020.000	1890.000	10082.100	1892.000	10095.700	1894.000	10100.000

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GR	1894.000	10255.000	1896.800	10590.000	1894.000	10805.000	1896.000	10815.000	1896.000	11025.000
GR	1898.000	11100.000	1900.000	11275.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.037	9965.000	0.025	10020.000	0.037	10068.000	0.100	11050.000	0.037
NH	11390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.627	36.000	9965.000	10020.000	62.000	62.000	62.000	0.000	0.000	0.000
GR	1898.800	7500.000	1898.000	7605.000	1896.000	7635.000	1894.000	7670.000	1892.900	7705.000
GR	1894.000	7775.000	1894.000	7880.000	1896.000	7975.000	1897.500	8035.000	1896.000	8130.000
GR	1894.000	8450.000	1893.400	8540.000	1894.000	8970.000	1896.000	9145.000	1898.000	9175.000
GR	1896.000	9265.000	1896.000	9605.000	1894.000	9695.000	1892.000	9740.000	1892.400	9965.000
GR	1875.900	9997.500	1875.900	10002.500	1884.400	10020.000	1885.000	10050.000	1886.000	10060.000
GR	1887.000	10068.000	1890.000	10085.000	1892.000	10095.000	1894.000	10105.000	1894.000	10255.000
GR	1896.000	10540.000	1896.000	10810.000	1896.000	11010.000	1898.000	11050.000	1900.000	11250.000
GR	1902.000	11390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	0.037	9935.000	0.025	10060.000	0.037	10100.000	0.100	11045.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.634	34.000	9935.000	10060.000	38.000	38.000	38.000	0.000	0.000	0.000
GR	1898.900	7525.000	1898.000	7630.000	1896.000	7660.000	1894.000	7685.000	1893.100	7715.000
GR	1894.000	7785.000	1894.000	7895.000	1896.000	7990.000	1897.700	8045.000	1896.000	8150.000
GR	1894.000	8470.000	1893.600	8540.000	1894.000	8940.000	1896.000	9160.000	1898.000	9195.000
GR	1896.000	9605.000	1894.000	9685.000	1892.000	9770.000	1891.400	9935.000	1876.400	9965.000
GR	1876.100	10001.000	1876.400	10035.000	1887.000	10060.000	1888.000	10068.000	1890.000	10090.000
GR	1892.000	10100.000	1894.000	10110.000	1894.000	10245.000	1896.000	10545.000	1896.000	10805.000
GR	1896.000	10960.000	1893.000	11045.000	1900.000	11195.000	1902.000	11375.000	0.000	0.000
NH	5.000	0.037	9935.000	0.018	10055.000	0.037	10105.000	0.100	10975.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.642	35.000	9935.000	10055.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.800	7600.000	1898.000	7655.000	1896.000	7665.000	1894.000	7680.000	1893.500	7710.000
GR	1894.000	7765.000	1894.500	7890.000	1896.000	7990.000	1898.000	8050.000	1896.000	8165.000
GR	1894.000	8525.000	1894.000	8825.000	1896.000	9155.000	1898.000	9195.000	1898.000	9435.000
GR	1896.000	9590.000	1894.000	9680.000	1885.500	9935.000	1886.500	9945.000	1876.500	9965.000
GR	1876.200	10000.000	1876.500	10035.000	1886.500	10055.000	1887.000	10056.000	1888.000	10064.000
GR	1890.000	10072.000	1892.000	10105.000	1894.000	10120.000	1894.000	10220.000	1896.000	10330.000
GR	1896.000	10550.000	1896.000	10825.000	1898.000	10975.000	1900.000	11120.000	1902.000	11375.000

NH	5.000	0.037	9945.000	0.018	10058.000	0.037	10083.000	0.100	10975.000	0.037
NH	11380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.649	34.000	9956.900	10043.100	35.100	35.000	35.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1898.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000

		CENTERLINE STATION AT 10000								
X1	10.650	34.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1898.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000
NH	5.000	0.037	9941.000	0.018	10066.000	0.037	10135.000	0.100	10735.000	0.037
NH	11355.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.657	37.000	9956.900	10043.100	41.000	41.000	41.000	0.000	0.000	0.000
GR	1899.800	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1898.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1884.900	9957.000	1884.500	10000.000	1884.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1885.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000

**** DROP STRUCTURE ****

		CENTERLINE STATION AT 10000								
X1	10.658	37.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
GR	1899.800	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1898.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1884.900	9957.000	1884.500	10000.000	1884.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1885.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	0.037	9940.000	0.018	10073.000	0.037	11345.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.665	34.000	9940.000	10060.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.200	7480.000	1898.000	7530.000	1896.000	7685.000	1896.000	7935.000	1898.000	8015.000
GR	1898.900	8065.000	1898.000	8125.000	1896.000	8220.000	1895.500	8510.000	1896.000	8960.000
GR	1898.000	9205.000	1900.000	9365.000	1900.000	9455.000	1898.000	9545.000	1896.000	9680.000
GR	1894.000	9750.000	1892.000	9871.000	1885.800	5894.000	1894.300	9940.000	1894.800	9945.000
GR	1884.800	9965.000	1884.500	10000.000	1884.900	10035.000	1894.800	10055.000	1894.300	10060.000
GR	1891.300	10067.000	1890.300	10070.000	1891.300	10073.000	1892.000	10130.000	1894.000	10140.000
GR	1896.000	11640.000	1898.000	10975.000	1900.000	11105.000	1902.000	11345.000	0.000	0.000
GT	1.000	82000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.037	0.037	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000
500-YEAR LOB BREAKOUT OF 5,000 CFS D/S OF I-15 (REJOINS MAIN CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW DISTRIBUTION AT I-15

X1	10.686	23.000	9940.000	10060.000	115.000	90.000	113.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1914.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1859.700	8085.000	
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1858.000	9700.000	
GR	1898.000	9915.000	1896.000	9935.000	1894.300	9940.000	1885.100	9960.000	1884.700	10000.000	
GR	1885.100	10040.000	1894.300	10060.000	1896.000	10070.000	1898.000	10100.000	1898.000	10450.000	
GR	1900.000	10800.000	1902.000	11360.000	1904.000	11500.000	0.000	0.000	0.000	0.000	
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.100	
NC	0.037	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

**** I-15 NORTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.697	22.000	9945.000	10060.000	55.000	55.000	55.000	0.000	0.000	0.000	
X2	0.000	0.000	1.000	1895.000	1898.600	0.000	0.000	0.000	0.000	15.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1899.000	1899.000	0.000	
BT	17.000	6430.000	1904.000	0.000	6820.000	1902.000	0.000	7810.000	1900.000	0.000	
BT	7970.000	1899.900	0.000	8085.000	1899.700	0.000	8220.000	1899.700	0.000	8530.000	
BT	1898.500	0.000	8800.000	1898.600	0.000	9140.000	1898.100	0.000	9655.000	1899.000	
BT	0.000	9795.000	1899.000	0.000	9895.000	1899.000	0.000	9995.000	1899.000	0.000	
BT	10075.000	1899.000	0.000	10320.000	1900.000	0.000	10870.000	1902.000	0.000	11270.000	
BT	1904.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1859.700	8085.000	
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1858.000	9625.000	
GR	1896.000	9935.000	1890.000	9945.000	1886.000	9970.000	1885.500	9975.000	1885.500	10025.000	
GR	1886.000	10035.000	1890.000	10060.000	1896.000	10070.000	1898.000	10090.000	1900.000	10290.000	
GR	1902.000	10850.000	1904.000	11300.000	0.000	0.000	0.000	0.000	0.000	0.000	

CENTERLINE STATION AT 10000

X1	10.700	23.000	9945.000	10060.000	15.000	15.000	15.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1898.600	1898.600	0.000	
GR	1906.000	6210.000	1904.000	6560.000	1903.900	6805.000	1902.000	7285.000	1903.100	7380.000	
GR	1903.000	7681.000	1902.800	8185.000	1902.000	8465.000	1900.000	9160.000	1898.000	9560.000	
GR	1898.000	9900.000	1890.000	9945.000	1886.000	9965.000	1885.500	9975.000	1885.500	10025.000	
GR	1886.000	10035.000	1890.000	10060.000	1890.000	10075.000	1898.000	10145.000	1900.000	10235.000	
GR	1902.000	10805.000	1904.000	11205.000	1906.000	11575.000	0.000	0.000	0.000	0.000	
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.500	

**** I-15 SOUTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.710	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000	
X2	0.000	0.000	1.000	1899.000	1898.600	0.000	0.000	0.000	0.000	15.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1899.000	1899.000	0.000	
BT	19.000	6210.000	1906.000	0.000	6560.000	1904.000	0.000	6805.000	1903.900	0.000	
BT	7285.000	1902.000	0.000	7380.000	1903.100	0.000	7680.000	1903.000	0.000	8185.000	
BT	1902.800	0.000	8465.000	1902.000	0.000	9045.000	1901.900	0.000	9160.000	1900.000	
BT	0.000	9535.000	1899.600	0.000	9930.000	1899.500	0.000	10100.000	1899.500	0.000	

BT	10200.000	1899.900	0.000	10235.000	1900.000	0.000	10400.000	1900.900	0.000	10805.000
BT	1902.000	0.000	11205.000	1904.000	0.000	11575.000	1906.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

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     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*PROF 1

CCHV=   0.100  CEHV=    0.300
1490 NH CARD USED
*SECNO 10.340
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED
                SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT
                CENTERLINE STATION AT 10000
    10.34     13.36  1885.36  1885.36      0.00  1886.61      1.26      0.00      0.00  1882.00
   62000.    56239.   15914.    9877.    10182.     952.     1414.        0.        0.  1880.00
     0.00      5.52     16.71     6.99     0.050    0.035    0.037     0.000   1872.00  6041.08
 0.006956       450.      450.      420.        3       17        3      0.00   4417.72 10737.64

FLOW DISTRIBUTION FOR SECNO=     10.34          CWSEL=   1885.36

STA=    6041.    6295.    6420.    6480.    6535.    6660.    7775.    8450.    8790.    8975.    9185.    9635.    9775.
  PER Q=   3.5      8.5      4.4      3.3      4.3      3.5      3.1      3.9      5.5      5.7     13.4      4.2
    AREA=  541.5    707.3    354.4    282.1    424.6   1373.6   1247.6   1151.3    658.0    704.9   1600.5    497.9
     VEL=    5.4      9.9     10.1      9.6      8.4      2.1      2.0      2.8      6.9      6.6      6.9      6.9
STA=    9775.    9965.   10055.   10190.   10310.   10738.
  PER Q=   5.1     19.4      6.4      3.7      1.9
    AREA=  637.3    952.1    588.2    402.8    422.7
     VEL=    6.3     16.7      8.9      7.5      3.8

1490 NH CARD USED
*SECNO 10.460
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.46     13.28  1889.38  1889.38      0.00  1890.86      1.48      3.78      0.07  1880.00
   75503.    38935.    1966.   16962.     6977.    1272.    1927.     160.       54.  1880.00
     0.02      5.58     15.41     8.80     0.045    0.035    0.037     0.000   1876.10  7220.04
 0.005376       600.      600.      700.        2        6        0      0.00   3208.65 10528.68

FLOW DISTRIBUTION FOR SECNO=     10.46          CWSEL=   1889.38

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   5-FEB-88     23:09:55                                                                          PAGE     9

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TAA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

STA=    7320.    8515.    8925.    9215.    9390.    5695.    9815.    9880.    9905.   10020.   10075.   10155.   10275.
  PER Q=   4.9      5.4      6.7      3.9     17.9      7.6      3.1      2.1     26.0      7.4      6.9      5.5
    AREA=  1783.9    905.8    908.9    539.4   1667.4    687.9    314.1    169.6   1272.0    461.0    510.6    525.9
     VEL=    2.1      4.5      5.6      5.5      8.1      8.3      7.4      9.2     15.4     12.1     10.1      7.9
STA=   10275.   10529.
  PER Q=   2.7
    AREA=  429.3
     VEL=    4.8

*SECNO 10.490
                CENTERLINE STATION AT 5188
    10.49     13.76  1890.76      0.03      0.00  1891.97      1.21      1.08      0.03  1880.00
   75503.    47749.    7648.   20105.     6860.     486.    2214.     210.       70.  1880.00
     0.03      6.96     15.75     9.08     0.042    0.035    0.037     0.000   1877.00  7619.11
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 0.105010      25.      170.      140.        3         0         0      0.00  2916.37 10535.47

 FLOW DISTRIBUTION FOR SECNO=     10.49          CWSEL=   1890.76

 STA=    7619.    7890.    8975.    9215.    9420.    9640.    9860.    9925.    9975.   10015.   10170.   10260.   10325.
   PER Q=     3.6      4.6      4.3      6.2     13.5     17.7      5.2      8.1     10.1     15.1      6.3      3.3
    AREA=   593.5   1117.9    664.1    772.3   1268.8   1488.8    436.6    518.4    485.7   1088.9    519.0    309.9
     VEL=     4.6      3.1      4.9      6.1      8.1      9.0      8.9     11.9     15.7     10.5      9.1      8.1
 STA=   10325.   10535.
   PER Q=     2.0
    AREA=   296.
     VEL=     5.0

 CCHV=   0.300 CEHV=   0.500
 *SECNO 10.540

 337  NORMAL BRIDGE,NRD=  9 MIN ELTRD= 1887.70 MAX ELLC= 1890.71

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.54     15.03  1892.90  1892.87     0.03  1894.18     1.38     2.03     0.09  1886.00
   75503.   46778.   17618.   11107.    5391.     1491.     1368.      263.       88.  1888.00
     0.05     8.68    11.81     8.12    0.042     0.035     0.037    0.000  1877.80  7692.92
 0.014056      270.      260.      220.        7        10         0 -1419.69  3135.36 10828.28

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       ILA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *SECNO 10.55
 3280 CROSS SECTION      10.55 EXTENDED       0.44 FEET

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD= 1887.20 MAX ELLC= 1890.00

                **** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
                NORMAL BRIDGE
                1% DEBRIS LOAD
                CENTERLINE STATION AT 10000
    10.55     16.44  1894.44     0.00     0.00  1894.97     0.53     0.53     0.26  1886.00
   75503.   48638.   11822.   15042.    8518.     1757.     2739.      283.       94.  1888.00
     0.04     5.71     6.73     5.49    0.042     0.035     0.037    0.000  1878.00  7614.49
 0.003721      82.      82.      82.        4         0         0 -908.76  3405.51 11020.00

 1490 NH CARD USED
 *SECNO 10.620

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.62     21.97  1897.67  1897.67     0.00  1899.24     1.58     1.03     0.52  1891.70
   75503.   47601.   16471.   11431.    8626.      860.     3009.      372.      118.  1884.20
     0.05     5.52    19.16     3.80    0.037     0.025     0.054    0.000  1875.70  7621.67
 0.002969      327.      335.      245.       20        16         0      .00  3465.84 11087.50
```

FLOW DISTRIBUTION FOR SECNO= 10.62 CWSEL= 1997.67

STA=	7622.	7795.	7975.	8429.	8545.	9104.	9308.	9554.	9849.	9936.	9966.	10020.	10082.
PER Q=	5.	3.6	5.2	3.8	17.4	3.3	6.8	11.7	4.6	1.7	21.8	9.6	
AREA=	674.5	570.3	989.6	500.3	2312.5	551.3	950.0	1420.9	482.5	174.5	856.8	655.1	
VEL=	5.6	4.8	3.9	5.7	5.7	4.5	5.4	6.2	7.3	7.5	19.2	11.1	

STA=	10082.	10590.	11088.
PER Q=	4.0	1.5	
AREA=	1437.7	916.1	
VEL=	2.1	1.3	

1

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 10.627
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.63	22.32	1358.22	1898.22	0.00	1899.82	1.60	0.18	0.01	1892.40
75503.	45635.	16965.	12903.	8350.	885.	3560.	390.	123.	1884.40
0.05	5.47	19.17	3.62	0.037	0.025	0.063	0.000	1875.90	7576.37
0.002933	62.	62.	62.	20	5	0	0.00	3495.44	11071.81

C
1490 NH CARD USED
*SECNO 10.634
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.63	22.35	1898.45	1898.45	0.00	1900.42	1.97	0.07	0.19	1891.40
75503.	32123.	37471.	5909.	8261.	2410.	3212.	402.	126.	1887.00
0.05	3.89	15.55	1.34	0.037	0.025	0.074	0.000	1876.10	7577.02
0.001405	38.	38.	38.	20	5	0	0.00	3502.04	11079.06

C
1490 NH CARD USED
*SECNO 10.642
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.64	23.17	1899.37	1899.37	0.00	1901.56	2.18	0.04	0.11	1889.50
75503.	30667.	39453.	5386.	9815.	2440.	3673.	416.	129.	1886.50
0.05	3.12	16.17	1.47	0.037	0.018	0.073	0.000	1876.20	7613.11
0.000731	40.	40.	40.	20	5	0	0.00	3461.27	11074.39

0
1490 NH CARD USED
*SECNO 10.649
3280 CROSS SECTION 10.65 EXTENDED 0.36 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
1
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CENTERLINE STATION AT 10000

10.65	23.66	1899.96	1899.96	0.00	1902.02	2.05	0.03	0.04	1886.30
75503.	34014.	33900.	7588.	10151.	2017.	3924.	430.	132.	1886.30

```
      0.05      3.35     16.80      1.93      0.036     0.018     0.059     0.000  1876.30  7520.00
 0.000805        39.       39.       39.         21         9         3      0.00  3597.46 11117.46

*SECNO 10.658
3280 CROSS SECTION      10.65 EXTENDED       1.68 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
                CENTERLINE STATION AT 10000
     10.65     24.98  1901.28  1899.89      0.00   1902.32      1.04      0.00      0.30  1889.30
    75503.    39360.   27725.    8418.    13328.    2130.     5434.      430.      132.  1889.30
      0.05      2.95     13.02     1.55     0.036     0.018     0.065     0.000  1876.30  7520.00
 0.000484         1.        1.        1.        20         6         0      0.00  3765.85 11285.85

1490 NH CARD USED
*SECNO 10.657
3280 CROSS SECTION      10.66 EXTENDED       1.83 FEET

                CENTERLINE STATION AT 10000
     10.66     25.13  1901.63      0.00      0.00   1902.42      0.79      0.02      0.08  1894.50
    75503.    38232.   25201.   12070.    13454.    2148.     6512.      451.      136.  1894.50
      0.06      2.84     11.73     1.85     0.036     0.018     0.057     0.000  1876.50  7525.00
 0.000437        41.       41.       41.         2         0         0      0.00  3786.19 11311.19

*SECNO 10.658
3280 CROSS SECTION      10.66 EXTENDED       2.22 FEET

                **** DROP STRUCTURE ****
                CENTERLINE STATION AT 10000
     10.66     17.52  1902.02      0.00      0.00   1902.51      0.49      0.00      0.09  1894.50
    75503.    45174.   16066.   14264.    14396.    1492.     7014.      451.      136.  1894.50
      0.06      3.14     10.77     2.03     0.036     0.018     0.057     0.000  1884.50  7525.00
 0.000495         1.        1.        1.         4         0         0      0.00  3830.00 11355.00

1490 NH CARD USED
*SECNO 10.665
3280 CROSS SECTION      10.66 EXTENDED       2.82 FEET

                CENTERLINE STATION AT 10000
     10.66     17.53  1902.03      0.00      0.00   1902.54      0.51      0.02      0.01  1894.30
    77000.    38281.   18593.   20129.    13510.    1780.     6644.      472.      139.  1894.30
      0.06      2.83     10.45     3.03     0.037     0.018     0.036     0.000  1884.50  7480.00
 0.000463        40.       40.       40.         0         0         0      0.00  3865.00 11345.00


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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   G         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TEA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTA       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CCRAR     TOPWID      ENDST

*SECNO 10.686

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
                500-YEAR LOB BREAKOUT OF 5,000 CFS D/S OF I-15 (REJOINS MAIN
                  CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW
                  DISTRIBUTION AT I-15
     10.69     17.86  1902.56  1902.56      0.00   1903.94      1.38      0.09      0.44  1894.30
```

```
    82000.    37935.    28547.    15117.     9937.     1927.     3967.      818.      150.   1894.30
       .6      3.82     15.02      3.81     0.037     0.025     0.037     0.000  1884.70   6710.81
 0.001647      115.      113.        90.        20         9         0      0.00  4688.38  11399.20

FLOW DISTRIBUTION FOR SECNO=     10.69          CWSEL=   1902.56

STA=    6711.     7810.     8220.     8530.     8800.     9140.     9700.     9915.     9540.    10060.    10450.    10800.    11359.
 PER Q=     4.2       4.4       4.9       5.4       7.4      13.7       5.4       1.0      35.3      10.3       5.8       2.3
  AREA=  1574.9    1121.1    1072.6    1082.7    1431.4    2525.5     980.4     148.2    1927.2    1836.9    1246.0     884.5
   VEL=     2.2       3.2       3.7       4.1       4.2       4.4       4.5       5.3      15.0       4.6       3.8       2.2

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      2.80      0.00     70.00      5.00   1194.80      1.74   1885.50   1885.10

*SECNO 10.697
6870 D.S. ENERGY OF 1903.34 HIGHER THAN COMPUTED ENERGY OF 1903.50

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID AREA     ELLC      ELTRD
 1903.50   1903.41     .07     74689.    7432.     1195.      1195.          1855.00   1898.60

                **** I-15 NORTH ****
                2" DEBRIS LOAD
1
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                CENTERLINE STATION AT 10000
    10.70     17.82   1903.32      0.00      0.00   1903.54      0.62      0.00      0.00   1890.00
    82000.    52981.    20388.     8631.    12810.     1921.     2591.      539.      156.   1890.00
      0.06      4.14     10.61      3.33     0.037     0.035     0.037     0.000  1885.50   6562.23
 0.001475        55.       55.        55.         2         0         8      0.00  4585.20  11147.43
0
FLOW DISTRIBUTION FOR SECNO=     10.70          CWSEL=   1903.32

STA=    6562.     7810.     8035.     8530.     8800.     9140.     9625.     9935.     9945.    10060.    10290.    10850.    11147.
 PER Q=     7.8       4.0       8.6       6.9       9.3      14.6      12.6       0.8      24.9       6.0       4.3       0.3
  AREA=  2469.0     944.5    1797.8    1288.4    1690.5    2556.8    1959.8     103.2    1920.8    1094.0    1300.3     196.6
   VEL=     2.6       3.6       3.9       4.4       4.5       4.7       5.3       6.6      10.6       4.5       2.7       1.2

*SECNO 10.700

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.70     18.11   1903.61   1903.61      0.00   1905.00      1.39      0.03      0.38   1890.00
    82000.    36407.    28316.    17277.     7279.     1965.     3034.      544.      157.   1890.00
      0.07      5.00     14.41      5.69     0.037     0.035     0.037     0.000  1885.50   6879.38
 0.002641        15.       15.        15.        20         5         0      0.00  4246.74  11126.12
0
FLOW DISTRIBUTION FOR SECNO=     10.70          CWSEL=   1903.61

STA=    6879.     9160.     9560.     9900.     9945.    10060.    10145.    10805.    11126.
 PER Q=    11.6      12.8      15.1       4.9      34.5      10.5      10.0       0.6
  AREA=  3097.3    1842.2    1905.9     432.3    1964.6     876.5    1899.7     257.8
   VEL=     3.1       5.7       6.5       9.2      14.4       9.9       4.3       1.8
```

SPECIAL BRIDGE

SB	XK	XKOR	COFG	RDLEN	BWC	EWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.50

*SECNO 10.710
6870 D.S. ENERGY OF 1905.00 HIGHER THAN COMPUTED ENERGY OF 1904.95
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
1904.95	1904.79	0.12	73179.	8911.	1195.	1195.	1899.00	1898.60

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**** I-15 SOUTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.71	16.23	1903.73	0.00	0.00	1905.00	1.27	0.00	0.00	1890.00
82000.	37094.	27490.	17416.	7679.	1980.	3174.	562.	163.	1890.00
.67	4.33	13.89	5.49	0.037	0.035	0.037	0.000	1885.50	6646.51
0.002427	60.	60.	60.	5	0	8	0.00	4305.64	11152.14

FLOW DISTRIBUTION FOR SECNO= 10.71 CWSEL= 1903.73

STA=	6847.	8465.	9160.	9560.	9900.	9945.	10060.	10145.	10805.	11152.
PER Q=	3.5	9.3	12.9	15.1	4.8	33.5	10.3	10.3	0.7	
AREA=	1494.9	1901.3	1894.3	1950.1	438.1	1979.6	887.5	1965.6	301.3	
VEL=	1.9	3.9	5.6	6.3	8.9	13.9	9.5	4.2	1.8	

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TN LOB BREAKOUT D/S OF I-15

TOTAL AREA	AVG VELOCITY	MAX DEPTH	AVG DEPTH	TOP WIDTH	TOP WIDTH
420.4	3.56	3.03	1.43	500.0	293.9

ASQ	QCOMP	ERRAC	TASQ	TCQ	TABER	NITER	DSWS	USWS	DSSNO	USSNO
1497.36	1497.21	0.01	1497.36	1497.21	0.01	5	1894.441	1902.030	10.550	10.665

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****
HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
•	10.340	0.00	0.00	0.00	1872.00	82000.00	1885.36	1885.36	1886.61	69.58	16.71	12547.50	9830.46
•	10.460	600.00	0.00	0.00	1876.10	75502.65	1889.38	1889.38	1890.86	53.76	15.41	10175.55	10297.31
	10.490	170.00	0.00	0.00	1877.00	75502.65	1890.76	0.00	1891.97	50.10	15.75	9559.56	10666.52
*	10.540	260.00	1887.70	1890.70	1877.80	75502.65	1892.80	1892.80	1894.18	140.96	11.81	8250.19	6359.37
	10.550	82.00	1887.20	1890.00	1876.00	75502.65	1894.44	0.00	1894.97	37.21	6.73	13014.46	12377.17
*	10.620	335.00	0.00	0.00	1875.70	75502.65	1897.67	1897.67	1899.24	29.65	19.16	12494.62	13856.71
*	10.627	62.00	0.00	0.00	1875.90	75502.65	1898.22	1898.22	1899.82	29.33	19.17	12754.92	13942.46
*	10.634	38.00	0.00	0.00	1876.10	75502.65	1898.45	1898.45	1900.42	14.05	15.55	13882.98	20145.11
*	10.642	40.00	0.00	0.00	1876.20	75502.65	1899.37	1899.37	1901.56	7.31	16.17	15928.05	27927.47
*	10.649	39.00	0.00	0.00	1876.30	75502.65	1899.96	1899.96	1902.02	8.05	16.80	16092.45	26609.56
*	10.65[illegible]	1.[illegible]	[illegible]	[illegible]	1876.30	75502.65	1901.28	1899.99	1902.32	4.84	13.02	20691.55	34326.67
	10.657	41.00	0.00	0.00	1876.50	75502.65	1901.63	0.00	1902.42	4.37	11.73	22113.81	36105.16
	10.658	1.00	0.00	0.00	1884.50	75502.65	1902.02	0.00	1902.51	4.95	10.77	22905.64	33929.51
	10.665	40.00	0.00	0.00	1884.50	77000.00	1902.03	0.00	1902.54	4.63	10.45	21934.07	35790.46
*	10.686	113.00	0.00	0.00	1884.70	82000.00	1902.56	1902.56	1903.94	16.47	15.02	15831.36	20207.17
	10.697	55.00	1898.60	1899.00	1885.50	82000.00	1903.32	0.00	1903.94	14.75	10.61	17321.65	21350.16
*	10.700	15.00	0.00	0.00	1885.50	82000.00	1903.61	1903.61	1905.00	26.41	14.41	12276.27	15956.15

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10.710	60.00	1898.60	1899.00	1885.50	82000.00	1903.73	0.00	1905.00	24.27	13.89	12832.71	16644.71

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LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	10.340	82000.00	1885.36	0.00	0.00	0.00	4417.72	0.00
*	10.460	75502.65	1889.38	0.00	4.03	0.00	3208.65	600.00
	10.490	75502.65	1890.76	0.00	1.38	0.00	2916.37	170.00
*	10.540	75502.65	1892.80	0.00	2.04	0.00	3135.36	260.00
	10.550	75502.65	1894.44	0.00	1.64	0.00	3405.51	82.00

*	10.620	75502.65	1857.67	0.00	3.23	0.00	3465.84	335.00
*	10.627	75502.65	1858.22	0.00	0.55	0.00	3495.44	62.00
*	10.634	75502.65	1858.45	0.00	0.24	0.00	3502.04	38.00
*	10.642	75502.65	1859.37	0.00	0.92	0.00	3461.27	40.00
*	10.649	75502.65	1859.96	0.00	0.59	0.00	3597.46	39.00
*	10.650	75502.65	1901.28	0.00	1.32	0.00	3768.85	1.00
	10.657	75502.65	1901.63	0.00	0.35	0.00	3786.19	41.00
	10.658	75502.65	1902.02	0.00	0.39	0.00	3830.00	1.00
	10.665	77000.00	1902.03	0.00	0.01	0.00	3865.00	40.00
*	10.686	82000.00	1902.56	0.00	0.53	0.00	4688.38	113.00
	10.697	82000.00	1903.32	0.00	0.76	0.00	4585.20	55.00
*	10.700	82000.00	1903.61	0.00	0.29	0.00	4246.74	15.00
	10.710	82000.00	1903.73	0.00	0.13	0.00	4305.64	60.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.467 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.540 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.540 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.620 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.620 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.620 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.627 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.627 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.627 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.634 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.634 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.634 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.642 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.642 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.642 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.649 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.649 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.649 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.650 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.686 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.686 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.686 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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 CAUTION  SECNO=    10.700   PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.700   PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.700   PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

1
   5-FEB-88     23:11:49                                                    PAGE     1


 **********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
   ERROR CORR -  31,32,33,34,35
   MODIFICATION -  50,51,52,53,54,55
 **********************************************



EOF..
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1*************************************************
 *  LATER SURFACE PROFILES                       *
 *  VERSION OF NOVEMBER 1976                     *
 *  UPDATED AUGUST 1983                          *
 *                                               *
 *  RUN DATE   7-FEB-88 TIME   01:18:05          *
 *************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*  (916) 440-2105 (FTS) 448-2105
*****************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X           XXXXX   XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  51,51,52,53,54,55
**************************************************

C
T1        CCRFCD/COE OVERFLOW STUDY
T2        JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3        LAS VEGAS WASH - 100-YEAR

J1  ICHECK     INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

          0.        2.        3.        0.  -1.000000    0.00      0.0       0.        0.000     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

          1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

          150.000   0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

GT        2.000  23000.000  82000.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC        0.000      0.000      0.000     0.100     0.300     0.000     0.000     0.000     0.000     0.000
NH        5.000      0.040   6660.000     0.100  8790.000     0.042  5565.000     0.035 10055.000     0.037
NH    10835.000      0.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET        0.000      7.100      9.100     0.000     0.000     0.000  7980.000     0.000  6505.000     0.000
                  SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT
                  CENTERLINE STATION AT 10000
X1       10.340     53.000   9965.000  10055.000   450.000   420.000   450.000     0.000     0.000     0.000
X2        0.000      0.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
GR     1888.000   6015.000   1885.000   6025.000  1884.000  6075.000  1882.000  6295.000  1880.000  6315.000
GR     1878.900   6420.000   1880.000   6480.000  1883.000  6505.000  1880.000  6515.000  1876.000  6535.000
GR     1876.000   6545.000   1882.000   6560.000  1884.000  6660.000  1886.000  6925.000  1884.000  7025.000
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GR	1884.000	7110.000	1886.000	7210.000	1886.000	7320.000	1884.000	7380.000	1884.000	7445.000
GR	1882.000	7460.000	1881.300	7480.000	1882.000	7505.000	1884.000	7670.000	1882.000	7685.000
GR	1882.000	7775.000	1884.000	7805.000	1884.200	7500.000	1884.000	8035.000	1882.700	8100.000
GR	1884.000	8170.000	1884.300	8215.000	1884.000	8270.000	1882.000	8390.000	1881.600	8450.000
GR	1882.000	8500.000	1882.000	8600.000	1882.000	8790.000	1881.600	8875.000	1882.000	8975.000
GR	1882.000	9185.000	1881.600	9235.000	1882.000	9775.000	1882.000	9965.000	1872.000	9995.000
GR	1872.000	10030.000	1880.000	10055.000	1882.000	10190.000	1882.000	10310.000	1884.000	10350.000
GR	1884.000	10675.000	1886.000	10810.000	1886.000	10835.000	0.000	0.000	0.000	0.000
GT	2.000	23000.000	75500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	7.100	8095.000	0.142	9905.000	0.135	10120.000	0.037	10575.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8515.000	0.000	0.000	0.000

CENTERLINE STATION AT 10160

X1	10.460	28.000	9905.000	10120.000	600.000	700.000	600.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1890.000	7310.000	1886.000	7375.000	1886.000	7420.000	1888.000	7445.000	1888.000	7680.000
GR	1888.000	8095.000	1888.000	8515.000	1887.200	8750.000	1886.000	8925.000	1886.000	8975.000
GR	1886.600	9215.000	1886.000	9390.000	1884.000	9450.000	1882.300	9695.000	1884.000	9815.000
GR	1885.100	9870.000	1884.000	9880.000	1882.000	9900.000	1880.000	9905.000	1878.000	9970.000
GR	1876.100	10000.000	1878.000	10010.000	1880.000	10020.000	1882.000	10075.000	1884.000	10155.000
GR	1886.000	10275.000	1888.000	10425.000	1890.000	10575.000	0.000	0.000	0.000	0.000
NC	0.042	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8075.000	0.000	0.000	0.000

CENTERLINE STATION AT 5168

X1	10.490	27.000	9975.000	10315.000	250.000	140.000	170.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1852.000	7615.000	1886.000	7635.000	1886.000	7650.000	1888.000	7680.000	1890.000	7890.000
GR	1890.600	8075.000	1890.000	8505.000	1888.000	8975.000	1888.000	9215.000	1886.000	9420.000
GR	1884.000	9640.000	1884.000	9860.000	1884.100	9890.000	1884.000	9925.000	1880.000	9935.000
GR	1880.000	9975.000	1878.000	9995.000	1877.000	10000.000	1878.000	10005.000	1880.000	10015.000
GR	1884.000	10035.000	1884.000	10170.000	1886.000	10260.000	1886.000	10325.000	1888.000	10360.000
GR	1890.000	10433.000	1892.000	10705.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8410.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	10.540	33.000	9934.000	10077.000	270.000	220.000	260.000	0.000	0.000	0.000
BT	9.000	9450.000	1890.700	1890.700	9480.000	1891.600	1890.000	9520.000	1890.000	1888.000
BT	5700.000	1888.500	1886.000	9934.000	1887.700	1886.000	9938.500	1887.700	1885.700	10061.100
BT	1888.800	1885.700	10077.000	1889.000	1888.000	10225.000	1890.000	1890.000	0.000	0.000
GR	1894.000	7630.000	1892.000	7735.000	1890.000	7800.000	1888.000	7825.000	1888.000	7875.000
GR	1890.000	7950.000	1892.000	7990.000	1892.000	8410.000	1890.000	8940.000	1890.000	9380.000
GR	1890.700	9457.000	1890.700	9481.000	1888.000	9520.000	1886.000	9700.000	1886.000	9934.000
GR	1885.700	9938.900	1881.900	9939.000	1877.800	9956.000	1877.800	9974.500	1885.700	9974.600
GR	1885.700	9977.500	1877.800	9977.600	1877.800	10022.500	1885.700	10022.600	1885.700	10025.300
GR	1877.800	10025.400	1877.800	10043.800	1881.900	10061.000	1885.700	10061.100	1888.000	10077.000
GR	1890.000	10225.000	1892.000	10680.000	1894.000	11050.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8260.000	0.000	0.000	0.000

**** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
NORMAL BRIDGE
1* DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.550	38.000	9923.000	10075.000	82.000	82.000	82.000	0.000	0.000	0.000
BT	8.000	9505.000	1890.000	1890.000	9565.000	1888.800	1888.000	9825.000	1888.000	1886.100
BT	9928.000	1887.200	1886.000	9938.900	1887.700	1885.900	10061.100	1888.800	1885.900	10075.000
BT	1885.000	1888.000	10210.000	1890.000	1890.000	0.000	0.000	0.000	0.000	0.000
GR	1896.000	7505.000	1894.000	7645.000	1892.000	7735.000	1890.000	7780.000	1888.000	7805.000
GR	1888.000	7835.000	1890.000	7890.000	1892.000	7980.000	1893.100	8260.000	1892.000	8595.000
GR	1890.000	8910.000	1890.000	9210.000	1892.000	9290.000	1890.000	9345.000	1890.700	9475.000
GR	1890.000	9505.000	1888.000	9565.000	1886.100	9825.000	1886.000	9928.000	1885.900	9938.900
GR	1882.100	9939.000	1878.000	9956.000	1878.000	9974.500	1885.900	9974.600	1885.900	9977.500
GR	1878.000	9977.600	1878.000	10022.500	1885.900	10022.600	1885.900	10025.300	1878.000	10025.400

GR	1878.000	10043.800	1882.100	10061.000	1885.900	10061.100	1888.000	10075.000	1890.000	10210.000
GR	1892.000	10665.000	1894.000	11130.000	1896.000	11380.000	0.000	0.000	0.000	0.000

1

NH	7.000	0.037	9849.000	0.035	9566.000	0.025	10020.000	0.035	10055.000	0.037
NH	10100.000	0.100	11100.000	0.035	11275.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8035.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.620	35.000	9966.000	10120.000	320.000	245.000	325.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1898.000	7620.000	1896.000	7630.000	1894.000	7665.000	1892.500	7710.000	1894.000	7795.000
GR	1894.000	7885.000	1896.000	7975.000	1897.300	8035.000	1896.000	8109.000	1894.000	8429.000
GR	1893.000	8549.000	1894.000	9104.000	1896.000	9139.000	1896.000	9204.000	1894.000	9224.000
GR	1893.700	9275.000	1894.400	9309.000	1893.700	9359.000	1894.200	9391.000	1893.200	9554.000
GR	1892.500	9849.000	1892.000	9891.000	1892.000	9936.000	1891.700	9966.000	1875.700	9997.500
GR	1875.700	10002.500	1884.200	10020.000	1890.000	10082.000	1892.000	10095.000	1894.000	10100.000
GR	1894.000	10255.000	1896.800	10590.000	1896.000	10805.000	1898.000	11100.000	1900.000	11275.000
NH	5.000	0.037	9965.000	0.025	10020.000	0.037	10068.000	0.100	11050.000	0.037
NH	11390.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8035.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.627	35.000	9965.000	10120.000	62.000	62.000	62.000	0.000	0.000	0.000
GR	1898.800	7500.000	1898.000	7605.000	1896.000	7635.000	1894.000	7670.000	1892.900	7705.000
GR	1894.000	7775.000	1894.000	7830.000	1896.000	7975.000	1897.500	8035.000	1896.000	8130.000
GR	1894.000	8450.000	1893.400	8540.000	1894.000	8970.000	1896.000	9145.000	1898.000	9175.000
GR	1896.000	9265.000	1896.000	9605.000	1894.000	9695.000	1892.000	9740.000	1892.400	9965.000
GR	1875.900	9997.500	1875.900	10002.500	1884.400	10020.000	1885.000	10050.000	1886.000	10060.000
GR	1887.000	10063.000	1890.000	10085.000	1892.000	10095.000	1894.000	10105.000	1894.000	10255.000
GR	1896.000	10540.000	1896.000	10810.000	1898.000	11050.000	1900.000	11250.000	1902.000	11390.000
NH	5.000	0.037	9935.000	0.025	10060.000	0.037	10100.000	0.100	11045.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8045.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.634	33.000	9935.000	10060.000	38.000	38.000	38.000	0.000	0.000	0.000
GR	1898.900	7525.000	1898.000	7630.000	1896.000	7660.000	1894.000	7685.000	1893.100	7715.000
GR	1894.000	7785.000	1894.000	7895.000	1896.000	7990.000	1897.700	8045.000	1896.000	8150.000
GR	1894.000	8470.000	1893.600	8540.000	1894.000	8940.000	1896.000	9160.000	1898.000	9195.000
GR	1896.000	9265.000	1894.000	9685.000	1892.000	9770.000	1891.400	9935.000	1876.400	9965.000
GR	1876.100	10000.000	1876.400	10035.000	1887.000	10060.000	1888.000	10068.000	1890.000	10090.000
GR	1892.000	10100.000	1894.000	10110.000	1894.000	10245.000	1896.000	10545.000	1896.000	10805.000
GR	1898.000	11045.000	1900.000	11195.000	1902.000	11375.000	0.000	0.000	0.000	0.000
NH	5.000	0.037	9935.000	0.018	10055.000	0.037	10105.000	0.100	10975.000	0.037
NH	11375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8050.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.642	34.000	9935.000	10055.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.600	7600.000	1898.000	7655.000	1896.000	7665.000	1894.000	7680.000	1893.500	7710.000
GR	1894.000	7760.000	1894.500	7850.000	1896.000	7990.000	1898.000	8050.000	1896.000	8165.000
GR	1894.000	8525.000	1894.000	8825.000	1896.000	9155.000	1898.000	9195.000	1898.000	9435.000
GR	1896.000	9590.000	1894.000	9680.000	1889.500	9935.000	1886.500	9945.000	1876.500	9965.000
GR	1876.200	10000.000	1876.500	10035.000	1886.500	10055.000	1887.000	10056.000	1888.000	10064.000
GR	1890.000	10072.500	1892.000	10105.000	1894.000	10126.000	1894.000	10220.000	1896.000	10330.000
GR	1896.000	10550.000	1898.000	10975.000	1900.000	11120.000	1902.000	11375.000	0.000	0.000

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NH	5.000	0.037	9945.000	0.018	10058.000	0.037	10083.000	0.100	10975.000	0.037
NH	11380.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8070.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								

X1	10.645	34.000	9956.900	10043.100	39.000	39.000	39.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1893.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8070.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.65	34.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
GR	1899.600	7520.000	1898.000	7635.000	1896.000	7670.000	1894.300	7720.000	1895.200	7900.000
GR	1896.000	7975.000	1893.000	8040.000	1898.600	8070.000	1898.000	8130.000	1896.000	8200.000
GR	1894.400	8540.000	1896.000	9075.000	1898.000	9215.000	1898.000	9485.000	1896.000	9620.000
GR	1894.000	9690.000	1892.000	9930.000	1886.500	9945.000	1886.300	9956.900	1876.800	9957.000
GR	1876.300	10000.000	1876.800	10043.000	1886.300	10043.100	1886.500	10048.000	1887.000	10058.000
GR	1888.000	10061.000	1890.000	10070.000	1892.000	10083.000	1894.000	10095.000	1896.000	10275.000
GR	1896.000	10555.000	1898.000	10975.000	1900.000	11120.000	1902.000	11380.000	0.000	0.000
NH	5.000	1.037	9941.100	1.018	10066.000	0.037	10135.100	0.100	10735.000	0.037
NH	11355.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8080.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.657	37.000	9956.900	10043.100	41.000	41.000	41.000	0.000	0.000	0.000
GR	1899.800	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1898.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1876.900	9957.000	1876.500	10000.000	1876.500	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1889.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8080.000	0.000	0.000	0.000
		**** DROP STRUCTURE ****								
		CENTERLINE STATION AT 10000								
X1	10.658	37.000	9956.900	10043.100	1.000	1.000	1.000	0.000	0.000	0.000
GR	1899.800	7525.000	1898.000	7605.000	1896.000	7675.000	1894.200	7725.000	1896.000	7965.000
GR	1898.000	8030.000	1898.800	8080.000	1898.000	8135.000	1896.000	8210.000	1894.900	8530.000
GR	1896.000	9005.000	1898.000	9210.000	1900.000	9410.000	1898.000	9500.000	1896.000	9655.000
GR	1894.000	9700.000	1892.000	9865.000	1892.000	9885.000	1890.000	9941.000	1889.000	9944.000
GR	1890.000	9947.000	1894.500	9956.900	1884.900	9957.000	1884.500	10000.000	1884.900	10043.000
GR	1894.500	10043.100	1894.300	10048.000	1889.500	10060.000	1888.500	10063.000	1889.500	10066.000
GR	1891.000	10068.000	1892.000	10135.000	1894.000	10140.000	1896.000	10735.000	1898.000	10950.000
GR	1900.000	11115.000	1902.000	11355.000	0.000	0.000	0.000	0.000	0.000	0.000

NH	3.000	0.037	9940.000	0.018	10073.000	0.037	11345.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8065.000	0.000	0.000	0.000
		CENTERLINE STATION AT 10000								
X1	10.665	34.000	9940.000	10060.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	1899.200	7480.000	1898.000	7530.000	1896.000	7685.000	1896.000	7935.000	1898.000	8015.000
GR	1898.900	8065.000	1898.000	8125.000	1896.000	8220.000	1895.500	8510.000	1896.000	8960.000
GR	1898.000	9235.000	1900.000	9365.000	1900.000	9455.000	1898.000	9545.000	1896.000	9680.000
GR	1894.000	9750.000	1892.000	9871.000	1889.800	9894.000	1894.300	9940.000	1894.800	9945.000
GR	1884.800	9965.000	1884.500	10000.000	1884.800	10035.000	1894.800	10055.000	1894.300	10060.000
GR	1891.300	10067.000	1890.300	10070.000	1891.300	10073.000	1892.000	10130.000	1894.000	10140.000
GR	1896.000	10641.000	1898.000	10975.000	1900.000	11105.000	1902.000	11345.000	0.000	0.000
QT	2.000	23000.000	32000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.037	0.037	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000
500-YEAR LOB BREAKOUT OF 6,500 CFS D/S OF I-15 (REJOINS MAIN CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW

DISTRIBUTION AT I-15 (5,000 CFS) & A SPLIT FLOW MODEL OF THE
LOB RIDGE D/S OF I-15 (1,500 CFS)

X1	10.686	23.000	9940.000	10060.000	115.000	90.000	113.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1899.700	8085.000
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1898.000	9700.000
GR	1898.000	9915.000	1896.000	9935.000	1894.300	9940.000	1885.100	9960.000	1884.700	10000.000
GR	1885.100	10040.000	1894.300	10060.000	1896.000	10070.000	1898.000	10100.000	1898.000	10450.000
GR	1900.000	10300.000	1902.000	11360.000	1904.000	11500.000	0.000	0.000	0.000	0.000
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.100
NC	0.037	0.037	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	0.000	0.000	8000.000	0.000	0.000	0.000

**** I-15 NORTH ****
2* DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.697	22.000	9945.000	10060.000	55.000	55.000	55.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	1899.000	1898.600	0.000	0.000	0.000	0.000	15.000
BT	17.000	6430.000	1904.000	0.000	6820.000	1902.000	0.000	7810.000	1900.000	0.000
BT	7970.000	1899.900	0.000	8185.000	1899.700	0.000	8220.000	1899.700	0.000	8530.000
BT	1898.500	0.000	8800.000	1898.600	0.000	9140.000	1898.100	0.000	9695.000	1899.000
BT	0.000	9795.000	1859.000	0.000	9895.000	1899.000	0.000	9995.000	1895.000	0.000
BT	10075.000	1899.000	0.000	10320.000	1900.000	0.000	10670.000	1902.000	0.000	11270.000
BT	1904.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1904.000	6430.000	1902.000	6820.000	1900.000	7810.000	1899.900	7970.000	1899.700	8085.000
GR	1899.700	8220.000	1898.500	8530.000	1898.600	8800.000	1898.100	9140.000	1898.000	9625.000
GR	1896.000	9935.000	1890.000	9945.000	1886.000	9970.000	1885.500	9975.000	1885.500	10025.000
GR	1886.000	10035.000	1890.000	10060.000	1896.000	10070.000	1898.000	10090.000	1900.000	10290.000
GR	1902.000	10850.000	1904.000	11300.000	0.000	0.000	0.000	0.000	0.000	0.000

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ET	0.000	7.100	0.000	0.000	0.000	0.000	7380.000	0.000	0.000	0.000

CENTERLINE STATION AT 10000

X1	10.700	23.000	9945.000	10060.000	15.000	15.000	15.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
GR	1906.000	6210.000	1904.000	6560.000	1903.900	6805.000	1902.000	7285.000	1903.100	7380.000
GR	1903.000	7680.000	1902.800	8185.000	1902.000	8465.000	1900.000	9160.000	1898.000	9560.000
GR	1898.000	9900.000	1890.000	9945.000	1886.000	9965.000	1885.500	9975.000	1885.500	10025.000
GR	1886.000	10035.000	1890.000	10060.000	1890.000	10075.000	1898.000	10145.000	1900.000	10235.000
GR	1902.000	10805.000	1904.000	11205.000	1906.000	11575.000	0.000	0.000	0.000	0.000
SB	1.250	1.560	2.800	0.000	70.000	5.000	1194.800	1.740	1885.500	1885.500
ET	0.000	7.100	0.000	0.000	0.000	0.000	7380.000	0.000	0.000	0.000

**** I-15 SOUTH ****
2* DEBRIS LOAD
CENTERLINE STATION AT 10000

X1	10.710	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	1899.000	1899.500	0.000	0.000	0.000	0.000	15.000
BT	19.000	6210.000	1906.000	0.000	6560.000	1904.000	0.000	6805.000	1903.900	0.000
BT	7285.000	1902.000	0.000	7380.000	1903.100	0.000	7680.000	1903.000	0.000	8185.000
BT	1902.800	0.000	8465.000	1902.000	0.000	9045.000	1901.900	0.000	9160.000	1900.000
BT	0.000	9535.000	1899.600	0.000	9920.000	1899.500	0.000	10100.000	1899.500	0.000
BT	10200.000	1899.900	0.000	10235.000	1900.000	0.000	10400.000	1900.900	0.000	10805.000
BT	1902.000	0.000	11205.000	1904.000	0.000	11575.000	1906.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 10.340
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 7900.0 10835.0 TYPE= 1 TARGET= -7900.000
SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT
CENTERLINE STATION AT 10340

10.34	11.96	1883.96	1383.96	0.00	1884.92	0.96	0.00	0.00	1882.00
23000.	10358.	9524.	3119.	3457.	826.	672.	0.	0.	1880.00
0.00	3.00	11.53	4.64	0.050	0.035	0.037	0.000	1872.00	8037.12
0.003999	450.	450.	420.	0	41	0	0.00	2207.19	10349.15

FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1883.96

STA=	8037.	8600.	8875.	8975.	9185.	9635.	9775.	9965.	10055.	10190.	10310.	10349.
PER Q=	3.6	5.4	3.5	6.3	15.8	4.9	5.7	41.4	9.1	4.1	0.4	
AREA=	634.1	585.3	215.7	411.1	970.9	302.0	371.9	826.2	399.3	234.9	38.3	
VEL=	1.3	2.2	3.7	3.5	3.7	3.7	3.5	11.5	5.2	4.0	2.5	

1490 NH CARD USED
*SECNO 10.460

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8515.0 10575.0 TYPE= 1 TARGET= -8515.000
CENTERLINE STATION AT 10000

10.46	10.43	1886.53	1886.53	0.00	1887.82	1.29	2.68	0.10	1880.00
23000.	6717.	11170.	5113.	1514.	944.	781.	58.	26.	1880.00
1.02	4.44	11.83	6.55	.042	0.035	0.037	0.000	1876.10	8847.67
0.004716	600.	600.	700.	2	5	0	0.00	1418.89	10314.77

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 10.46 CWSEL= 1886.53

STA=	8848.	9695.	9815.	9900.	9935.	10020.	10075.	10155.	10315.
PER Q=	17.1	7.4	3.9	0.9	48.6	11.4	7.9	3.0	
AREA=	941.7	345.6	199.3	27.1	944.0	304.2	282.4	154.2	
VEL=	4.2	4.9	4.5	7.2	11.8	8.6	6.4	3.9	

*SECNO 10.490

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8075.0 10705.0 TYPE= 1 TARGET= -8075.000
CENTERLINE STATION AT 5188

10.49	10.94	1887.94	0.00	0.00	1888.71	0.77	0.83	0.05	1880.00

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   23000.    12557.     4294.     6149.     2330.      372.     1072.       75.         32.    1880.00
     0.03      5.39     11.53      5.74     0.042     0.035     0.037     0.000 1877.80   9221.97
 0.003832      257.      171.      140.         3         0         1      7.00 1136.84  10358.81

FLOW DISTRIBUTION FOR SECNO=     10.49          CWSEL=   1887.54

STA=    9222.     9640.     9860.     9525.     9975.    10015.    10035.    10170.    10260.    10359.
 PER Q=    14.4      21.5       5.9      13.9      18.7       4.1      14.3       5.6       2.5
  AREA=   836.3     865.0     252.3     376.6     372.3     118.6     530.8     263.9     158.2
   VEL=     3.9       5.5       5.4       3.4      11.5       8.0       6.2       5.1       3.6

CCHV=   0.300 CEHV=   0.500
*SECNO 10.54

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD= 1887.70 MAX ELLC= 1890.70

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    8410.0    11050.0  TYPE=      1  TARGET=   -8410.000
                CENTERLINE STATION AT 10000
    10.54     13.18    1892.98    1890.98       0.00    1892.00      1.02      1.64      0.12  1886.00
 23000.    9358.    12051.     1591.     1606.     1232.      330.       55.       41.    1888.00
     0.04      5.83      9.79      4.82     0.042     0.035     0.037     0.000 1877.80   8679.21
 0.012486      270.      260.      220.        25        10         0 -1408.61  1765.68  10448.89

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   SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        CLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB       ACH       ARCB      VOL       TEA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     ICPWIC       ENDST

*SECNO 10.550

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD= 1887.20 MAX ELLC= 1890.00

3470 ENCROACHMENT STATIONS=    8260.0    11380.0  TYPE=      1  TARGET=   -8260.000
                **** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
                NORMAL BRIDGE
                1% DEBRIS LOAD
                CENTERLINE STATION AT 10000
    10.55     14.38    1892.38       0.00       0.00    1892.63      0.26      0.40      0.23  1886.00
 23000.    12547.     7228.     3225.     3391.     1455.     1031.      104.       44.    1888.00
     0.04      3.70      4.97      3.13     0.042     0.035     0.037     0.000 1878.00   8478.67
 0.002608        82.       82.       82.         2         0         0 -932.76  2256.03  10734.71

1490 NH CARD USED
*SECNO 10.620

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    8035.0    11275.0  TYPE=      1  TARGET=   -8035.000
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CENTERLINE STATION AT 10000

10.62	19.82	1895.52	1895.52	0.00	1896.70	1.18	.64	0.46	1891.70	
23000.	9129.	9604.	4267.	3314.	744.	968.	142.	60.	1884.20	
0.06	2.75	12.91	4.41	0.037	0.025	0.039	0.000	1875.70	8185.58	
0.001635	320.	335.	245.	20	28	0	0.00	2171.68	10437.02	

FLOW DISTRIBUTION FOR SECNO= 10.62 CWSEL= 1895.52

STA=	8186.	8549.	9104.	9554.	9849.	9936.	9966.	10020.	10082.	10437.
PER Q=	3.8	12.7	5.5	10.7	5.0	2.0	41.8	16.1	2.5	
AREA=	427.7	1121.9	570.5	786.1	295.9	110.1	744.2	522.1	445.6	
VEL=	2.1	2.6	2.2	3.1	3.9	4.1	12.9	7.1	1.3	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TLA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 10.627

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 8035.0 11390.0 TYPE= 1 TARGET= -8035.000

CENTERLINE STATION AT 10000

10.63	20.05	1895.95	1895.95	0.00	1897.21	1.26	0.10	0.04	1892.40	
23000.	8001.	9979.	5020.	2697.	760.	1285.	149.	63.	1884.40	
0.06	2.97	13.13	3.91	0.037	0.025	0.048	0.000	1875.50	8138.61	
0.001685	62.	62.	62.	20	5	0	0.00	1926.58	10432.33	

1490 NH CARD USED
*SECNO 10.634

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 8045.0 11375.0 TYPE= 1 TARGET= -8045.000

CENTERLINE STATION AT 10000

10.63	20.83	1896.93	0.00	0.00	1897.45	0.52	0.02	0.22	1891.40	
23000.	6056.	15531.	1413.	3568.	2218.	1606.	155.	65.	1887.00	
0.06	1.53	7.00	0.88	0.037	0.025	0.061	0.000	1876.10	8093.30	
0.000318	33.	38.	38.	3	0	0	0.00	2581.10	10915.16	

1490 NH CARD USED
*SECNO 10.642

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 8050.0 11375.0 TYPE= 1 TARGET= -8050.000

CENTERLINE STATION AT 10000

10.64	20.60	1896.80	0.00	0.00	1897.60	0.79	0.01	0.13	1889.50	
23000.	4556.	17443.	1001.	3586.	2132.	1119.	162.	67.	1886.50	
0.06	1.27	8.18	0.89	0.037	0.018	0.054	0.000	1876.20	8118.81	
0.000224	40.	40.	40.	2	0	0	0.00	2245.18	10720.68	

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONI	CORAR	TOPWID	ENDST

149. NH CARD USED
*SECNO 10.649

3265 DIVIDED FLOW

347 ENCROACHMENT STATIONS= 8070.0 11380.0 TYPE= 1 TARGET= -8070.000
CENTERLINE STATION AT 10000

10.65	20.32	1896.62	1890.20	0.00	1897.80	1.17	0.01	0.19	1886.30
23000.	4039.	17261.	1700.	2497.	1725.	870.	167.	69.	1886.30
0.06	1.62	9.98	1.95	0.033	0.018	0.032	0.000	1876.30	8178.11
0.000349	39.	39.	39.	4	15	0	0.00	2049.20	10686.33

*SECNO 10.650

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 8070.0 11380.0 TYPE= 1 TARGET= -8070.000
CENTERLINE STATION AT 10000

10.65	20.32	1896.62	1890.32	0.00	1897.81	1.19	0.00	0.01	1889.30
23000.	3986.	17354.	1660.	2478.	1725.	862.	167.	69.	1889.30
0.06	1.61	10.04	1.92	0.034	0.018	0.033	0.000	1876.30	8178.15
0.000380	1.	1.	1.	0	15	0	0.00	2048.78	10686.10

149. NH CARD USED
*SECNO 10.657

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 8080.0 11355.0 TYPE= 1 TARGET= -8080.000
CENTERLINE STATION AT 10000

10.66	20.12	1896.62	1889.79	0.00	1897.84	1.22	0.02	0.02	1894.50
23000.	3662.	17422.	1917.	2129.	1715.	1468.	172.	71.	1894.50
0.06	1.72	10.16	1.31	0.035	0.018	0.045	0.000	1876.50	8186.93
0.000442	41.	41.	41.	0	15	0	0.00	2074.51	10801.13

*SECNO 10.658

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	CLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 8080.0 11355.0 TYPE= 1 TARGET= -8080.000
**** DROP STRUCTURE ****
CENTERLINE STATION AT 10000

10.66	12.37	1896.87	1896.87	0.00	1898.26	1.40	0.00	0.09	1894.50	
23000.	6643.	13310.	3343.	2448.	1048.	1663.	172.	71.	1894.50	
0.06	2.72	12.42	2.01	0.035	0.018	0.047	0.000	1884.50	8177.44	
0.001055	1.	1.	1.	4	11	0	0.00	2157.15	10828.33	

1490 NH CARD USED
*SECNO 10.665

3265 DIVIDED FLOW

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

347 ENCROACHMENT STATIONS= 8665.0 11345.0 TYPE= 1 TARGET= -8665.000
CENTERLINE STATION AT 10000

10.66	12.61	1897.11	1897.11	0.00	1898.41	1.30	0.04	0.03	1894.30
23000.	5045.	13329.	4126.	2171.	1190.	1577.	177.	73.	1894.30
0.07	2.32	11.62	2.62	0.037	0.018	0.035	0.000	1884.50	8167.36
0.000980	40.	40.	40.	2	5	0	0.00	2148.85	10825.64

*SECNO 10.686

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000
500-YEAR LOB BREAKOUT OF 6,500 CFS D/S OF I-15 (REJOINS MAIN CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW DISTRIBUTION AT I-15 (5,000 CFS) & A SPLIT FLOW MODEL OF THE LOB RIDGE D/S OF I-15 (1,500 CFS)

1

SECNO / TIME / SLOPE	DEPTH / GLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	CLOSS / TOPWID	BANK ELEV LEFT/RIGHT / ELPIN / SSTA / ENDST
10.69	12.44	1897.14	1897.14	0.00	1902.08	4.55	0.20	1.82	1894.30
23000.	50.	22853.	97.	16.	1277.	30.	184.	76.	1894.30
0.07	3.05	17.93	3.26	0.037	0.025	0.037	0.000	1884.70	9923.62
0.004051	115.	113.	90.	20	8	0	0.00	163.45	10087.07

FLOW DISTRIBUTION FOR SECNO= 10.69 CWSEL= 1897.14

STA=	9924.	9935.	9940.	10060.	10070.	10087.
PER Q=	0.0	0.2	99.4	0.3	0.1	
AREA=	6.5	9.9	1276.6	19.9	9.7	
VEL=	1.7	3.9	17.9	4.0	1.8	

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1896.55 ,NOT 1897.14 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFG	RDLEN	BLC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.10

*SECNO 10.697
PRESS FLOW BECAUSE EGLWC OF 1907.01 EXCEEDS 1.5 DEPTH
6870 D.S. ENERGY OF 1902.08 HIGHER THAN COMPUTED ENERGY OF 1900.14

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
1906.11	1907.01	0.00	9735.	13309.	1195.	1195.	1899.00	1898.60

347 ENCROACHMENT STATIONS= 8000.0 11300.0 TYPE= 1 TARGET= -8000.000
**** I-15 NORTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.70	16.41	1901.91	0.00	0.00	1902.08	0.17	0.00	0.00	1890.00	
23000.	12646.	8639.	1745.	6956.	1759.	1282.	192.	78.	1890.00	
0.07	1.82	4.90	1.36	0.037	0.035	0.037	0.000	1885.50	8000.00	
0.000353	55.	55.	55.	4	2	5	0.00	2825.46	10825.46	

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1901.91

STA=	8000.	8530.	8830.	9140.	9625.	9935.	9945.	10060.	10290.	10825.
PER Q=	8.3	6.7	9.3	15.1	14.4	1.1	37.4	6.0	1.6	
AREA=	1352.3	907.8	1211.2	1873.2	1522.8	89.1	1758.7	769.8	512.0	
VEL=	1.4	1.7	1.8	1.9	2.2	2.5	4.9	1.8	0.7	

*SECNO 10.700

347C ENCROACHMENT STATIONS= 7380. 11575.0 TYPE= 1 TARGET= -7380.000
CENTERLINE STATION AT 10000

10.70	16.52	1901.82	0.00	0.00	1902.20	0.38	0.01	0.11	1890.00	
23000.	7405.	11538.	4056.	3346.	1759.	1448.	194.	78.	1890.00	
0.07	2.21	6.56	2.80	0.037	0.035	0.037	0.000	1885.50	8529.05	
0.000634	15.	15.	15.	2	0	0	0.00	2223.41	10752.47	

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1901.82

STA=	8529.	9160.	9560.	9900.	9945.	10060.	10075.	10145.	10235.	10752.
PER Q=	2.4	9.9	13.9	6.0	50.2	4.0	9.4	2.2	1.9	
AREA=	572.8	1126.3	1297.3	351.7	1758.8	177.2	547.1	253.4	469.8	
VEL=	0.9	2.0	2.5	3.9	6.6	5.2	4.0	2.0	0.9	

SPECIAL BRIDGE

SB	XK	XKOR	COFG	RDLEN	BWC	EWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.50

*SECNO 10.710
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
1910.79	1902.24	0.04	16806.	6313.	1195.	1195.	1899.00	1895.50

347C ENCROACHMENT STATIONS= 7380.0 11575.0 TYPE= 1 TARGET= -7380.000

**** I-15 SOUTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.71	16.70	1902.20	0.00	0.00	1502.49	0.30	0.30	0.00	1890.00
23000.	8046.	10724.	4231.	3916.	1803.	1732.	204.	82.	1890.00
0.06	2.5	5.95	2.44	0.037	0.035	0.037	0.000	1885.50	8395.45
0.000504	60.	60.	60.	2	0	5	0.00	2449.30	10844.75

0
1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 10.71 CWSEL= 1902.20

STA=	8395.	9160.	9560.	9900.	9945.	10060.	10075.	10145.	10235.	10805.	10845.
PER Q=	3.7	10.9	14.6	5.8	46.6	3.8	9.1	2.5	3.0	0.0	
AREA=	840.3	1279.5	1427.6	368.9	1802.9	183.0	573.9	287.9	683.3	3.9	
VEL=	1.0	2.0	2.3	3.6	5.9	4.8	3.7	2.0	1.0	0.2	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

T1 CCRFCD/COE OVERFLOW STUDY
T2 JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
T3 LAS VEGAS WASH - 500-YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	-1.000000	0.00	0.0	0.	0.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	.00	-1.000	0.00	0.000	0.000	0.000	0.000	0.000	0.000

1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 10.340
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED

3265 DIVIDED FLOW

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 6505.0 10835.0 TYPE= 1 TARGET= -6505.000
SECNO=RIVER MILEAGE ABOVE ADVANCED WASTEWATER TREATMENT PLANT
CENTERLINE STATION AT 10000

10.34	13.87	1885.87	1885.87	1883.96	1887.11	1.30	0.00	0.00	1882.00
82000.	52260.	16873.	12867.	10137.	998.	1776.	0.	0.	1880.00
0.00	5.16	16.91	7.24	0.055	0.035	0.037	0.000	1872.00	6505.00
0.006686	450.	450.	420.	0	47	0	0.00	4144.92	10794.98

0
FLOW DISTRIBUTION FOR SECNO= 10.34 CWSEL= 1885.87

STA=	6505.	6545.	6660.	7670.	8170.	8500.	8790.	8875.	8975.	9185.	9635.	9775.	9965.
PER Q=	4.3	3.5	3.6	3.5	3.1	4.1	3.1	3.7	7.1	16.4	5.1	6.4	
AREA=	299.7	389.6	1442.9	1223.0	962.9	1121.3	345.6	406.6	812.0	1829.9	569.3	734.6	
VEL=	11.8	7.3	2.0	2.3	2.6	3.0	7.4	7.4	7.1	7.4	7.4	7.1	
STA=	9965.	10055.	10190.	10310.	10675.	10795.							
PER Q=	20.6	7.6	4.6	3.4	0.2								
AREA=	998.0	657.0	464.0	551.2	64.0								
VEL=	16.9	9.4	8.1	4.7	2.2								

1490 NH CARD USED
*SECNO 10.460
CENTERLINE STATION AT 10000

10.46	13.33	1889.43	0.00	1886.53	1890.86	1.43	3.65	0.04	1880.00
75500.	39152.	19405.	16943.	7106.	1278.	1952.	164.	52.	1880.00
0.02	5.51	15.19	8.68	0.045	0.035	0.037	0.000	1876.10	7319.22
0.005188	600.	600.	700.	3	0	0	0.00	3213.20	10532.43

0
FLOW DISTRIBUTION FOR SECNO= 10.46 CWSEL= 1889.43

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLCSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	7319.	8515.	8925.	9215.	9390.	9695.	9815.	9880.	9905.	10025.	10075.	10155.	10275.
PER Q=	5.1	5.5	6.8	4.0	17.8	7.5	3.1	2.1	25.7	7.4	6.8	5.5	
AREA=	1843.6	926.3	923.4	548.2	1682.6	693.9	317.4	170.8	1277.7	463.8	514.6	531.9	
VEL=	2.1	4.5	5.5	5.5	8.0	8.2	7.3	9.1	15.2	12.0	10.0	7.8	
STA=	10275.	10532.											
PER Q=	2.8												
AREA=	441.8												
VEL=	4.7												

*SECNO 10.490
CENTERLINE STATION AT 5188

10.49	13.72	1890.72	0.00	1887.54	1891.96	1.24	1.08	0.02	1880.00
75500.	47647.	7715.	20138.	6759.	484.	2192.	214.	66.	1880.00
0.03	7.05	15.94	9.19	0.042	0.035	0.037	0.000	1877.00	7619.25
0.005158	250.	170.	140.	2	0	0	0.00	2910.33	10529.58

0
FLOW DISTRIBUTION FOR SECNO= 10.49 CWSEL= 1890.72

STA=	7619.	7890.	8975.	9215.	9420.	9640.	9860.	9925.	9975.	10015.	10170.	10260.	10325.
PER Q=	3.5	4.4	4.3	6.2	13.6	17.7	5.2	8.2	10.2	15.1	6.3	3.3	
AREA=	581.9	1071.3	653.8	763.5	1259.3	1479.3	433.8	516.2	484.0	1082.3	515.2	307.1	
VEL=	4.6	3.1	5.0	6.1	8.1	9.1	5.0	12.0	15.9	10.6	9.2	8.1	
STA=	10325.	10530.											
PER Q=	1.9												
AREA=	287.1												

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      VEL=      5.1

 CCHV=   0.300 CEHV=    0.500
*SECNO 10.540

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD= 1887.70 MAX ELLC= 1890.70

7165 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.54     15.00   1892.90   1892.80   1890.96   1894.18      1.38      2.07      0.07   1886.00
   75500.    46775.    17619.    11106.     5390.     1491.     1368.      267.       86.    1888.00
     0.03      8.68      11.81      8.12     0.042     0.035     0.037     0.000   1877.80   7692.93
 0.014099      270.      260.      220.         3        10         0  -1419.68   3135.30  10828.24
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VCL       TSA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     ICFLID      ENDST

*SECNO 10.550

3301 HV CHANGED MORE THAN HVINS

337  NORMAL BRIDGE,NRD=  8 MIN ELTRD= 1887.20 MAX ELLC= 1890.00

                **** CIVIC CENTER DRIVE (NEW STRUCTURE) ****
                NORMAL BRIDGE
                1* DEBRIS LOAD
                CENTERLINE STATION AT 10000
    10.55     16.44   1894.44      0.00   1892.38   1894.97      0.53      0.53      0.26   1886.00
   75500.    48511.    11832.    15157.     8510.     1758.     2778.      287.       92.    1888.00
     0.04      5.70      6.73      5.46     0.042     0.035     0.037     0.000   1878.00   7613.99
 0.003720       82.       82.       82.         3         0         0  -932.76   3493.53  11107.52
0
1490 NH CARD USED
*SECNO 10.620

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                CENTERLINE STATION AT 10000
    10.62     22.01   1897.71   1897.71   1895.52   1899.29      1.58      1.02      0.53   1891.70
   75500.    48243.    16486.    10771.     8718.      362.     2611.      375.      116.    1884.20
     0.05      5.53      19.13      4.13     0.037     0.025     0.051     0.000   1875.70   7621.47
 0.002950       320.      335.      245.        20        16         0      0.00   3435.16  11056.63
0
FLOW DISTRIBUTION FOR SECNO=     10.62          CWSEL=   1897.71

STA=    7621.     7795.     7975.     8429.     8549.     9104.     9308.     9554.     9845.     9936.     9966.    10020.    10082.
 PER Q=     5.1       3.7       5.3       3.9      17.6       3.3       6.9      11.9       4.7       1.7      21.8       9.7
  AREA=   681.3     577.1    1007.4     504.7    2334.3     559.3     959.6    1432.6     485.9     175.7     861.9     657.6
   VEL=     5.6       4.8       4.0       5.7       5.7       4.5       5.4       6.3       7.3       7.5      19.1      11.1
STA=   10082.    10590.    11057.
 PER Q=     4.0       0.6
  AREA=  1457.6     495.4
   VEL=     2.1       0.9

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWIC	ENDST

1490 NH CARD USED
*SECNO 10.627
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.63	22.33	1898.23	1898.23	1895.95	1899.84	1.60	0.18	0.01	1892.40
75500.	45940.	16987.	12572.	8390.	886.	3377.	393.	121.	1884.40
0.05	5.48	19.18	3.72	0.037	0.025	0.062	0.000	1875.90	7574.21
0.002930	62.	62.	62.	20	5	0	0.00	3499.25	11073.46

1490 NH CARD USED
*SECNO 10.634
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.63	22.36	1898.46	1898.46	1896.93	1900.44	1.97	0.07	0.19	1891.40
75500.	32267.	37524.	5709.	8263.	2411.	3067.	405.	124.	1887.00
0.05	3.90	15.56	1.86	0.037	0.025	0.073	0.000	1876.10	7575.93
0.001406	38.	38.	38.	20	5	0	0.00	3503.84	11079.76

1490 NH CARD USED
*SECNO 10.642
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.64	23.20	1899.40	1899.40	1896.80	1901.59	2.19	0.04	0.11	1889.50
75500.	30934.	39507.	5059.	9879.	2443.	3425.	418.	127.	1886.50
0.05	3.13	16.17	1.48	0.037	0.018	0.071	0.000	1876.20	7612.28
0.000730	40.	40.	40.	20	5	0	0.00	3464.08	11076.36

1490 NH CARD USED
*SECNO 10.649
3280 CROSS SECTION 10.65 EXTENDED 0.36 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

CENTERLINE STATION AT 10000

10.65	23.66	1899.96	1899.96	1896.62	1902.02	2.06	0.03	0.04	1886.30
75500.	33995.	33919.	7586.	10141.	2017.	3920.	432.	131.	1886.30
0.05	3.35	16.82	1.94	0.036	0.018	0.059	0.000	1876.30	7520.00
0.000806	39.	39.	39.	20	5	0	0.00	3597.17	11117.17

*SECNO 10.650
3280 CROSS SECTION 10.65 EXTENDED 1.68 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
CENTERLINE STATION AT 10000

10.65	24.99	1901.29	1899.89	1896.62	1902.32	1.04	0.00	0.31	1889.30
75500.	39369.	27711.	8420.	13336.	2130.	5438.	433.	131.	1889.30

0.05	2.95	13.01	1.55	0.036	0.018	0.065	0.000	1876.30	7520.00
0.000463	1.	1.	1.	20	6	0	0.00	3766.29	11286.29

1490 NH CARD USED
*SECNO 10.657
3280 CROSS SECTION 10.66 EXTENDED 1.83 FEET

CENTERLINE STATION AT 10000

10.66	25.13	1901.63	0.00	1896.62	1902.42	0.79	0.02	0.08	1894.50
75500.	38217.	25217.	12066.	13442.	2147.	6506.	453.	134.	1894.50
0.06	2.84	11.74	1.85	0.036	0.018	0.057	0.000	1876.50	7525.00
0.000438	41.	41.	41.	3	0	0	0.00	3785.62	11310.62

*SECNO 10.658
3280 CROSS SECTION 10.66 EXTENDED 2.22 FEET

**** DROP STRUCTURE ****
CENTERLINE STATION AT 10000

10.66	17.52	1902.02	0.00	1896.87	1902.51	0.49	0.00	0.09	1894.50
75500.	45169.	16368.	14262.	14395.	1492.	7012.	454.	134.	1894.50
0.06	3.14	10.77	2.03	0.036	0.018	0.057	0.000	1884.50	7525.00
0.000496	1.	1.	1.	3	0	0	0.00	3830.00	11355.00

1490 NH CARD USED
*SECNO 10.665
3280 CROSS SECTION 10.66 EXTENDED 2.84 FEET

CENTERLINE STATION AT 10000

10.66	17.54	1902.04	0.00	1897.11	1902.53	0.48	0.02	0.08	1894.30
75500.	37569.	18133.	19748.	13558.	1782.	6669.	474.	136.	1894.30
0.06	2.77	10.20	2.96	0.037	0.018	0.036	0.000	1884.50	7480.00
0.000441	41.	41.	41.	3	0	0	0.00	3865.00	11345.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.686

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000
500-YEAR LOB BREAKOUT OF 6,500 CFS D/S OF I-15 (REJOINS MAIN CHANNEL AT X10.34); BREAKOUT FLOW DETERMINED BY A FLOW DISTRIBUTION AT I-15 (5,000 CFS) & A SPLIT FLOW MODEL OF THE LOB RIDGE D/S OF I-15 (1,500 CFS)

10.69	17.98	1902.68	1902.68	1897.14	1903.54	1.26	0.08	0.39	1894.30
82000.	38536.	28099.	15365.	10335.	1942.	4134.	522.	148.	1894.30
0.06	3.73	14.47	3.72	0.037	0.025	0.037	0.000	1884.70	6686.60
0.001512	115.	113.	90.	20	5	0	0.00	4721.28	11407.89

FLOW DISTRIBUTION FOR SECNO= 10.69 CWSEL= 1902.68

STA=	6687.	7810.	8220.	8530.	8800.	9140.	9700.	9915.	9940.	10060.	10450.	10800.	11408.
PER Q=	4.5	4.5	5.0	5.5	7.5	13.7	5.4	1.0	34.3	10.3	5.9	2.6	
AREA=	1712.9	1172.0	1111.1	1116.2	1473.6	2595.1	1007.1	151.4	1942.1	1885.3	1289.4	959.5	
VEL=	2.2	3.1	3.7	4.0	4.2	4.3	4.4	5.2	14.5	4.5	3.7	2.2	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.10

*SECNO 10.697
6870 D.S. ENERGY OF 1903.94 HIGHER THAN COMPUTED ENERGY OF 1903.57

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
1903.57	1903.49	0.06	74879.	7213.	1195.	1195.	1885.00	1898.60

2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.70	17.81	1903.31	0.00	1901.91	1903.94	0.63	0.00	0.00	1890.00
82000.	52979.	20392.	8629.	12807.	1921.	2590.	543.	154.	1890.00
0.07	4.14	10.62	3.33	0.037	0.035	0.037	0.000	1885.50	6562.40
0.001476	55.	55.	55.	2	0	8	0.00	4584.84	11147.24

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1903.31

STA=	6562.	7810.	8085.	8530.	8800.	9140.	9625.	9935.	9945.	10060.	10290.	10850.	11147.
PER Q=	7.8	4.0	8.6	6.9	9.3	14.6	12.6	0.8	24.9	6.0	4.3	0.3	
AREA=	2468.0	944.3	1797.4	1288.2	1690.2	2556.4	1959.5	103.2	1920.7	1093.8	1299.8	196.3	
VEL=	2.6	3.5	3.9	4.4	4.5	4.7	5.3	6.6	10.6	4.5	2.7	1.2	

*SECNO 10.700

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CENTERLINE STATION AT 10000

10.70	18.11	1903.61	1903.61	1901.82	1905.00	1.39	0.03	0.28	1890.00
82000.	36415.	28306.	17279.	7282.	1965.	3035.	548.	156.	1890.00
0.07	5.00	14.41	5.69	0.037	0.035	0.037	0.000	1885.50	6879.01
0.002639	15.	15.	15.	20	5	0	0.00	4247.40	11126.41

FLOW DISTRIBUTION FOR SECNO= 10.70 CWSEL= 1903.61

STA=	6879.	9160.	9560.	9900.	9945.	10060.	10145.	10805.	11126.
PER Q=	11.6	12.8	15.1	4.9	34.5	10.5	10.0	0.6	
AREA=	3100.6	1842.8	1906.4	432.3	1964.8	876.6	1900.7	258.2	
VEL=	3.1	5.7	6.5	9.2	14.4	9.9	4.3	1.8	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	2.80	0.00	70.00	5.00	1194.80	1.74	1885.50	1885.50

*SECNO 10.710
6870 D.S. ENERGY OF 1905.00 HIGHER THAN COMPUTED ENERGY OF 1904.95
PRESSURE AND WEIR FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
2017.70	1905.24	0.24	73180.	8907.	1195.	1195.	1899.00	1899.50

**** I-15 SOUTH ****
2' DEBRIS LOAD
CENTERLINE STATION AT 10000

10.71	18.23	1903.73	0.00	1902.20	1905.00	1.27	0.00	0.00	1890.00
82000.	37094.	27490.	17416.	7679.	1980.	3174.	565.	162.	1890.00
0.67	4.83	13.89	5.49	0.037	0.035	0.037	0.000	1885.50	6646.51
0.002427	60.	60.	60.	5	6	6	0.00	4305.64	11152.14

FLOW DISTRIBUTION FOR SECNO= 10.71 CWSEL= 1903.73

STA=	6847.	8465.	9160.	9560.	9900.	9945.	10060.	10145.	10805.	11152.
PER Q=	3.5	8.3	12.9	15.1	4.8	33.5	10.3	10.3	0.7	
AREA=	1494.9	1901.3	1894.3	1950.1	438.1	1979.6	887.6	1985.6	301.3	
VEL=	1.9	3.9	5.6	6.3	8.9	13.9	9.5	4.2	1.8	

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HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	10.340	0.00	0.00	0.00	1872.00	23000.00	1883.96	1883.96	1884.92	39.99	11.53	4955.78	3637.24
*	10.340	0.00	0.00	0.00	1872.00	82000.00	1885.87	1885.87	1887.17	66.86	16.91	12911.58	10028.22
*	10.460	600.00	0.00	0.00	1876.10	23000.00	1886.53	1886.53	1887.82	47.16	11.83	3239.09	3349.15
	10.460	600.00	0.00	0.00	1876.10	75500.00	1889.43	0.00	1890.86	51.88	15.19	10335.88	10481.75
	10.490	170.00	0.00	0.00	1877.00	23000.00	1887.94	0.00	1888.71	38.32	11.53	3774.16	3715.66
	10.490	170.00	0.00	0.00	1877.00	75500.00	1890.72	0.00	1891.96	51.58	15.94	9434.73	10512.59
*	10.540	260.00	1887.70	1890.70	1877.80	23000.00	1891.98	1890.98	1892.00	124.86	9.79	3167.62	2058.36
*	10.540	260.00	1887.70	1890.70	1877.80	75500.00	1892.80	1892.80	1894.18	140.99	11.81	8245.43	6358.57
	10.550	82.00	1887.20	1890.00	1876.00	23000.00	1892.38	0.00	1892.63	26.08	4.97	5877.05	4504.06
	10.550	82.00	1887.20	1890.00	1876.00	75500.00	1894.44	0.00	1894.97	37.20	6.73	13046.16	12378.08

*	10.620	335.00	0.00	0.00	1875.70	23000.00	1895.52	1895.52	1896.70	16.35	12.91	5025.84	5687.72
*	10.620	335.00	0.00	0.00	1875.70	75500.00	1897.71	1897.71	1899.29	29.50	19.13	12190.20	13900.08
*	10.627	62.00	0.00	0.00	1875.90	23000.00	1895.95	1895.95	1897.21	16.85	13.13	4742.05	5602.46
*	10.627	62.00	0.00	0.00	1875.90	75500.00	1898.23	1898.23	1899.84	29.30	19.18	12652.56	13947.26
	10.634	38.00	0.00	0.00	1876.10	23000.00	1896.93	0.00	1897.45	3.18	7.00	7792.50	12892.05
*	10.634	38.00	0.00	0.00	1876.10	75500.00	1898.46	1898.46	1900.44	14.06	15.56	13760.90	20132.18
	10.642	40.00	0.00	0.00	1876.20	23000.00	1896.80	0.00	1897.60	2.24	8.18	6837.34	15364.39
*	10.642	40.00	0.00	0.00	1876.20	75500.00	1899.40	1899.40	1901.59	7.30	16.17	15747.31	27948.87
	10.649	39.00	0.00	0.00	1876.30	23000.00	1896.62	1890.20	1897.80	3.49	9.98	5896.74	12317.04
*	10.649	39.00	0.00	0.00	1876.30	75500.00	1899.96	1899.96	1902.02	8.06	16.82	16077.97	26586.04
	10.650	1.00	0.00	0.00	1876.30	23000.00	1896.62	1890.32	1897.81	3.80	10.04	5065.00	11800.74
*	10.650	1.00	0.00	0.00	1876.30	75500.00	1901.29	1899.89	1902.32	4.83	13.01	20904.42	34350.53

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
	10.657	41.00	0.00	0.00	1876.50	23000.00	1896.62	1889.79	1897.84	4.42	10.16	5312.01	10934.51
	10.657	41.00	0.00	0.00	1876.50	75500.00	1901.63	0.00	1902.42	4.38	11.74	22095.80	36069.66
*	10.658	1.00	0.00	0.00	1884.50	23000.00	1896.87	1896.87	1898.26	10.55	12.42	5158.69	7080.72
	10.658	1.00	0.00	0.00	1884.50	75500.00	1902.02	0.00	1902.51	4.96	10.77	22859.57	33917.24
*	10.665	40.00	0.00	0.00	1884.50	23000.00	1897.11	1897.11	1898.41	9.80	11.62	4938.31	7348.65
	10.665	40.00	0.00	0.00	1884.50	75500.00	1902.04	0.00	1902.53	4.41	10.20	22009.56	35957.73
*	10.686	113.00	0.00	0.00	1884.70	23000.00	1897.14	1897.14	1902.08	40.51	17.90	1322.57	3613.57
*	10.686	113.00	0.00	0.00	1884.70	82000.00	1902.68	1902.68	1903.94	15.12	14.47	16415.45	21085.89
*	10.697	55.00	1898.60	1899.00	1885.50	23000.00	1901.91	0.00	1902.08	3.53	4.90	9996.99	12244.11
	10.697	55.00	1898.60	1899.00	1885.50	82000.00	1903.31	0.00	1903.94	14.76	10.62	17317.76	21344.15
	10.700	15.00	0.00	0.00	1885.50	23000.00	1901.82	0.00	1902.20	6.34	6.56	6554.42	9133.12
*	10.700	15.00	0.00	0.00	1885.50	82000.00	1903.61	1903.61	1905.00	26.39	14.41	12282.49	15963.75
	10.710	60.00	1899.50	1899.00	1885.50	23000.00	1902.20	0.00	1902.49	5.04	5.95	7450.89	10240.64
	10.710	60.00	1899.50	1899.00	1885.50	82000.00	1903.73	0.00	1905.00	24.27	13.89	12832.71	16644.71

LAS VEGAS WASH - 100-Y

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	10.340	23000.00	1883.96	0.00	0.00	0.00	2207.19	0.00
*	10.340	82000.00	1885.87	1.91	0.00	1.91	4144.92	0.00
*	10.460	23000.00	1886.53	0.00	2.57	0.00	1416.89	600.00
	10.460	75500.00	1889.43	2.90	3.56	2.90	3213.20	600.00
	10.490	23000.00	1887.94	0.00	1.41	0.00	1136.84	170.00
	10.490	75500.00	1890.72	2.78	1.29	2.78	2910.33	170.00
*	10.540	23000.00	1890.98	0.00	3.05	0.00	1769.68	260.00
*	10.540	75500.00	1892.80	1.82	2.08	1.82	3135.30	260.00

	10.550	23000.00	1892.38	0.00	1.39	0.00	2256.03	82.00
	10.550	75500.00	1894.44	2.07	1.64	2.07	3493.53	82.00
*	10.620	23000.00	1895.52	0.00	3.15	0.00	2171.68	335.00
*	10.620	75500.00	1897.71	2.18	3.26	2.18	3435.16	335.00
*	10.627	23000.00	1895.95	0.00	0.42	0.00	1926.58	62.00
*	10.627	75500.00	1898.23	2.29	0.53	2.29	3495.25	62.00
	10.634	23000.00	1896.93	0.00	0.98	0.00	2581.10	38.00
*	10.634	75500.00	1898.46	1.54	0.23	1.54	3503.84	38.00
	10.642	23000.00	1896.80	0.00	-0.12	0.00	2245.18	40.00
*	10.642	75500.00	1899.40	2.60	0.93	2.60	3464.08	40.00
	10.649	23000.00	1896.62	0.00	-0.18	0.00	2045.20	39.00
*	10.649	75500.00	1899.96	3.34	0.56	3.34	3597.17	39.00
	10.650	23000.00	1896.62	0.00	-0.01	0.00	2048.78	1.00
*	10.650	75500.00	1901.29	4.67	1.32	4.67	3766.29	1.00
	10.657	23000.00	1896.62	0.00	0.00	0.00	2074.91	41.00
	10.657	75500.00	1901.63	5.02	0.35	5.02	3785.62	41.00
*	10.658	23000.00	1896.87	0.00	0.25	0.00	2157.15	1.00
	10.658	75500.00	1902.02	5.15	0.39	5.15	3830.00	1.00
*	10.665	23000.00	1897.11	0.00	0.24	0.00	2146.85	40.00
	10.665	75500.00	1902.04	4.94	0.02	4.94	3865.00	40.00
*	10.686	23000.00	1897.14	0.00	0.03	0.00	163.45	113.00
*	10.686	82000.00	1902.68	5.55	0.64	5.55	4721.28	113.00
*	10.697	23000.00	1901.91	0.00	4.78	0.00	2825.46	55.00
	10.697	82000.00	1903.31	1.40	0.63	1.40	4564.84	55.00

SECNO	Q	CMSEL	DIFWSP	DIFMSX	DIFKWS	TOPWID	XLCH
10.700	23000.00	1901.82	0.00	-0.10	0.00	2223.41	15.00
* 10.700	82000.00	1903.61	1.79	0.29	1.79	4247.40	15.00
10.710	23000.00	1902.20	0.00	0.38	0.00	2449.30	60.00
10.710	82000.00	1903.73	1.54	0.12	1.54	4385.64	60.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 10.340 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.340 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.460 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.460 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.540 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.540 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.540 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 10.540 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.540 PROFILE= 2 MINIMUM SPECIFIC ENERGY

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 CAUTION  SECNO=    10.627  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.627  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.627  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=    10.627  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.627  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.627  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.627  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.627  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.627  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=    10.627  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.627  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.627  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.634  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.634  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.634  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.642  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.642  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.642  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.649  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.649  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=    10.649  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.650  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.658  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.658  PROFILE= 1  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=    10.665  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=    10.665  PROFILE= 1  MINIMUM SPECIFIC ENERGY

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 CAUTION  SECNO=    10.686  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=    10.697  PROFILE= 1  HYDRAULIC JUMP D.S.

 CAUTION  SECNO=    10.700  PROFILE= 2  CRITICAL DEPTH ASSUMED
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 CAUTION  SECNO=    10.700  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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